

## **Chapter One**

### **Introduction**

#### **1.1 Background of the Study**

The political, economic and social development of any country depends on the amount of revenue generation for the provision of infrastructure in such country. However, one way of generating the revenue for providing the needed expenditure by government is through a well-structured tax system. Tax is a major player in every society of the world such that it offers an opportunity for government to collect additional revenue needed in discharging its pressing obligations<sup>1</sup>. An effective tax system avails itself as one of the most effective means of mobilizing a nation's internal resources and it lends itself to creating an environment conducive to the promotion of economic development<sup>2</sup>. Notwithstanding the contribution of an effective tax system to revenue growth in most countries of the world, one of the major challenges faced by most developing nations (Nigeria inclusive), is how to improve the internal mobilization resources in order to meet the production/procurement of capital expenditure to the populace. This challenge is even more severe for Nigeria, a nation which derives over 70% of its revenue from sale of crude oil. The changing global oil market is currently putting the nation's oil and gas sector on its toes as Nigeria struggles to maintain its hold as the sixth exporter of oil in the world. Besides, there are fears that the spate of oil discoveries in new oil fields in the world has intimidating implications for Nigeria's potency among exporters of oil in the world. For instance, countries like Ghana, Liberia, Sierra Leone, Kenya, Uganda, and Tanzania have discovered large oil reserves and some have commenced production.

In the face of this foregoing uncertain future of Nigerian oil resources, the need to strengthen other sources of revenue cannot be over-emphasized. One of such sources is taxation<sup>3</sup>.

Taxation environments as well as its systems of administration in Nigeria have been in the spotlight in recent times. This accounts for the extensive research that has been conducted on the subject matter. Revenue generation from taxation is one of the major sources of revenue of all governments (Federal, State and Local) in Nigeria. When it is accurately administered, taxes collected come back to taxpayers in form of social amenities<sup>4</sup>.

A tax system represents one of the most effective means of mobilizing a nation's internal resources and it lends itself to creating an environment conducive for the promotion of economic growth for the three-tiered tax structure between the federal and other sub-national governments, each of which has different tax jurisdictions. The need for taxation among others, therefore, is to provide a material source of revenue for government in discharging its ever-growing obligations and commitments to its citizenry<sup>5</sup>. An efficient tax system ensures the mobilization of the untapped abundant internal resources and it also stimulates an environment conducive for the promotion of growth of a nation<sup>6</sup>.

Taxation is the primary source of revenue to every government. It is a compulsory levy on economic agents of an economy by the government without any "quid-pro-quo". Though tax has been defined differently by various authors, but the primary aim of any tax system is to raise funds through the public sector/domain for use in promoting government programs. In some instances, however, a tax may exist primarily, or at least very importantly, for regulatory purposes<sup>7</sup>.

Taxation is the compulsory transfer of payment (or occasionally of goods and services) from private individuals, institutions or groups to the government. It is a compulsory contribution imposed by a public authority, irrespective of the exact amount of service rendered to the taxpayer in return, or a compulsory contribution from a person to the government to defray the expenses incurred in the common interest of all, without references to special benefits conferred. More so, taxation is a compulsory levy imposed on a subject or upon his property

by the government to provide security, and social amenities and create conditions for the economic well-being of the society<sup>8</sup>.

Traditionally, taxes are classified into direct and indirect taxes. Direct taxes are those type of taxes in which its liability is determined with direct reference to the tax paying ability of the taxpayer like, “personal income tax, company income tax, petroleum profit tax, capital transfer tax, capital gains tax, inheritance tax, wealth tax etc. while in the case of indirect taxes such an ability to pay is assessed indirectly. Examples of indirect taxes in Nigeria include entertainment tax, custom and excise duties as well as the subject of this study: Value Added Tax (VAT), which replaced the sales tax<sup>9</sup>.

One of the relatively new and important developments in the tax system is the emergence of Value Added Tax (VAT). VAT has gained the attention of government world over, ever since it was launched in France in 1954, and was found to be an effective tool for boosting the revenue of government. Value added tax (VAT) is a consumption tax, levied at each stage of the consumption chain and borne by the final consumer of the product or service<sup>10</sup>. The administration of VAT is relatively easy, unselective, and difficult to evade. Thus far, VAT has been embraced by over 136 countries, in the world with over fifteen (15) countries in Africa. The spread of the VAT has been the most important development in taxation close to seventy years ago. Largely unheard of, outside of France, in the 1950s, the rate of diffusion of VAT has been largely unparalleled<sup>11</sup>. The end consumer of the good or service is responsible for paying VAT, which is a consumption tax assessed at every level of the supply chain<sup>12</sup>. According to the Value Added Tax Act of 1993, as modified, each person is obligated to charge and collect VAT at a flat rate of 5% (now 7.5%) on all invoiced amounts, on all goods and services that aren't exempt from paying VAT. The difference must be paid to the government on a monthly basis by the taxable person in cases when the VAT collected for the government (output VAT) exceeds the VAT paid to other people (input VAT) in the

preceding month. When the situation is reversed, the taxpayer has the right to a reclaim of the surplus VAT paid or, more realistically, to get a tax credit from the government in the amount of the excess VAT. It is not necessary to pay VAT on exports because all exports are zero rated for VAT.

VAT must be paid in the form of currency used for the exchange of goods or services. VAT as a broad-based tax levied at multiple stages of production (and distribution) with crucially taxes on input credited against taxes on output. Commenting on the relevance of VAT, it should be maintained that VAT serves a key source of government revenue in more than 120 nations, and about 70 percent of the world's population now lived in countries that charge VAT<sup>13</sup>.

The introduction of VAT in Nigeria through Decree 102 of 1993 marks the phasing out for the Sales Tax Decree No. 7 of 1986. The Decree took effect from 1st December 1993, but by administrative arrangement, invoicing for tax purpose did not commence until 1st January 1994. The VAT rate was pegged at 5% for about twenty-six years, despite various unsuccessful attempts to increase the rate to 10% as such proposal met stiff resistance from the Nigeria Labor Congress (NLC) and the notable activist-like organizations. However, on Thursday November 21, 2019, The Finance Bill 2019 was passed by the Senate after scaling through the third reading on the floor of the Senate and signed into Law by President Muhammed Buhari on 31st December 2020 which hitherto, raising the revenue of the government by various fiscal measures, including increase in the rate of Value Added Tax by 50% (from 5% to 7.5%) and became effective on 1st February 2020.

The introduction of VAT and its unsuccessful attempts to increase the rate over the years has been greeted with extensive criticisms by the citizens of Nigeria. This arose from the fear of grand design by the government to further milk the already poor masses of Nigeria. There was usually the suspicion that Nigerians would end up contributing money into private pockets. Many studies were conducted on the contributions of Value Added Tax revenues to

the economy by using Gross Domestic Product as macro level indicator both in developed and developing countries<sup>14</sup>. The dynamic operating mechanism of VAT is very easy because the yield from VAT is an accurate measurement of the growth of an economy and a reliable revenue mobilization source since purchasing power increases with economic growth. VAT is a self-assessment tax that is paid when returns are being rendered to the government. In-built in the tax is the refund or credit mechanism which eliminates the waterfall effect which is the feature of the retail sales tax<sup>15</sup>. The input-output tax mechanism in VAT makes it self-policing because of the operating mechanism. In effect, it is the output tax less input tax that constitutes the VAT payable. It is the equivalent of the VAT paid by the final consumer of the product that is collected by the government. Although VAT as a multiple-stage tax has a single effect and does not add more than the specified rate to the consumer price no matter the number of stages at which the tax is paid. VAT is levied at each stage at which supplies change hands. Example is the case of a manufacturing concern which manufactures items that will pass through the wholesaler to the retailer, it is ultimately borne by the consumer who does not need to register as an agent for VAT purposes and is unable to reclaim it. Hence the incidence falls on the final consumer of the item<sup>16</sup>.

Value Tax System in Nigeria is administered by the Federal Inland Revenue Service (FIRS) in close co-operation with Nigeria Customs Service (NCS) and the State Internal Revenue Service (SIRS). In line with the statutory mandate and the provision of section 10(1& 2) of VAT Act 1993, a taxable person shall pay to the supplier the tax on taxable goods and services purchased by or supplied to him at the time of making payment, the vendor then remits the tax charged on the contract to the nearest local VAT office. The remission shall be accompanied with a schedule showing the name and address of the contractor, invoice number, gross amount of invoice, amount of tax and the month of return. The effectiveness of VAT administration and efficiency in utilizing resources will determine the amount of VAT

collected all over the states of Nigeria. The VAT Act empowers FIRS to inspect, audit and investigate businesses for VAT purposes<sup>17</sup>. FIRS appoints an inspector to enter the premises of taxable person without any warrant from time to time in order to ensure compliance with the VAT legislation and regulations in all its ramifications; ensure that full amount of VAT deducted are promptly accounted for; examine method of recording transactions and offer suggestion where necessary; afford the VAT payer the opportunity to ask any question and seek clarification as may be necessary; and educate VAT payers on new developments in the system. VAT audit is the routine verification of the registered person's books and records to ensure the accuracy, completeness, and genuineness of the documents on the major aspects of the financial transactions on which the VAT calculations are based<sup>18</sup>.

VAT has contributed immensely to the total revenue of Nigeria as a country over the years and the continuous expected high yield from VAT will help to boost the fortunes of the government with minimum resistance from the taxpayers<sup>19</sup>. Further evidences from Nigeria suggest that the government should as much as possibly plug up all identifiable economic growth to achieve this objective.

Over the years, Nigeria economy has been faced with several challenges ranging from dwelling in crude oil prices, corruption and over dependence on crude oil revenue. Thus, despite the frequently changing fiscal and macro-economic policies, it remains a known fact that Nigeria has still not harness her economic potentials for rapid economic development. Hence this study is carried out to evaluate the contribution of VAT as a public revenue generation tool in Nigeria and its impact on capital expenditure using a wider scope of 1994-2021 in order to avoid a sweeping conclusion. The aim of this study is to empirically evaluate the contributions of Value Added Tax to resource mobilization in Nigeria with the view to meeting government expenditure to her citizenry<sup>20</sup>.

## 1.2 Statement of the Problem

Several studies have been carried out in the past on the subject; but the review of previous empirical literature revealed a lack of consensus in the research findings of past researchers which indicates the existence of a research gap. While the studies of some schools of thought revealed that Value Added Tax does not contribute to revenue mobilization in Nigeria which in turns impact economic growth in Nigeria, these arguments have been countered by other researchers in related studies that the Value Added Tax has a favorable and considerable impact on Nigeria's ability to raise money. The coverage of these studies seems not to have addressed the issue of Value Added Tax variables (input tax and output tax on goods and services and their significant influence on economic growth over the years. All over the global village, tax is one of the major sources of revenue for government to provide statutory roles of creating good living conditions for the citizen but, not every government effectively exploits this opportunity as a means of revenue generation. Studies in most recent time have it that tax is a major player in every society of the world. It is an opportunity for government to generate additional revenue to discharge its pressing obligations and as well improve the people standard of living through an effective and efficient collection system. It is also one of the effective means of mobilizing a country's internal resources so as to promote economic growth<sup>21</sup>.

Value Added Tax (VAT) has become a preferred revenue generation tool by revenue authorities because of its relative ease of administration, ability to raise desired revenue for government, high collection efficiency and its economic regulation potentials. In recent times, its economic regulation and stabilization potential is being appreciated by governments, as a result of the need for multi-dimension efforts in savaging turbulent economies, bedeviled by rising inflation, unemployment, dwindling revenue, exchange rate fluctuations, unstable interest rate, budget deficit, rising debt burden, continuous drop in the per barrel of crude oil

in the world market and economic recession. This is evident in the increase of VAT by 50% from 5% to 7.5%, a move seen as a response to the inflation due to the legislation on minimum wage increment, as demonstrated in the Finance Act 2020 and some further amendments done in the Finance Act 2021.

Furthermore, the Nigerian tax system is concentrated on petroleum and trade taxes while direct and broad-based indirect taxes like the Value-Added Tax (VAT) are neglected. Some prominent researchers observed that the distribution of government revenue is skewed in favor of oil revenue vis-à-vis non-oil revenue; non-tax revenue vis-à-vis tax revenue; and within the tax structure, indirect taxes vis-à-vis direct taxes. Consequent upon these, it appeared that VAT is froth with some problems. Hence, this study is intended to evaluate the contribution of VAT to revenue mobilization in Nigeria and how that will subsequently affect the economic growth in Nigeria for the periods 1994-2021 with a view to contributing to existing literatures.

### **1.3 Aim and Objectives of the Study**

The aim of the study is to investigate the effects of Value Added Tax (VAT) on revenue mobilization in Nigeria. Thus, other specific objectives are to:

- i. evaluate the contribution of value added tax to public revenue generation in Nigeria;
- ii. ascertain how value added tax generation affect public infrastructure expenditure in Nigeria;
- iii. examine the extent to which value added tax contribute to public spending on human capital development in Nigeria;
- iv. assess the effect of value added tax generation on public military expenditure in Nigeria.

## **1.4 Research Questions**

The study was guided by the following questions:

1. in what way does value added tax affect the generation of public revenue in Nigeria?
2. how does value added tax generation affect public infrastructure expenditure in Nigeria?
3. to what extent does value added tax generation affect public spending on human capital development in Nigeria?
4. how can value added tax generation affect public military expenditure in Nigeria?

## **1.5 Hypotheses**

The research hypotheses in null forms are stated as follows:

- H<sub>01</sub>:** Value added tax has no significant effect on public revenue generation in Nigeria.
- H<sub>02</sub>:** There is no significant relationship between value added tax and public infrastructure expenditure in Nigeria.
- H<sub>03</sub>:** Value added tax does not have significant effect on public spending on human capital development in Nigeria.
- H<sub>04</sub>:** The generation of value added tax does not have any significant effect public military expenditure in Nigeria.

## **1.6 Significance of the Study**

The significance of the study premise on the fact that extensive studies have been carried out on various aspects of the operation of consumption tax (VAT) in Nigeria study, however, not

so many studies have been carried out on the assessment of the value-added tax contribution to revenue generation in Nigeria up till 2021. Hence, the study hereby focuses on adding and enriching the previous studies on Value Added Tax (VAT). The study will also assist in correcting the perception of both individuals and business owners that Value Added Tax was not the reason for increase in the cost of materials and semi-finished goods as Value Added Tax is a chain tax system and most importantly increase the awareness of what the government can do to improve the effectiveness of VAT in Nigeria. It will also serve as a bundle of literature to future researchers and students of taxation and policymakers in thereof Value Added Tax. (VAT).

### **1.7 Scope of the Study**

The study covers in-depth examination of the contribution of Value Added Tax to revenue generation in Nigeria. It also analyses the importance of VAT to the total GDP in Nigeria considering the continuous fall in the crude oil prices at the World market which has resulted in over 80% fall in the yield (spread) per barrel of oil produced in Nigeria. The study also helps correct the notion by private business owners and individual taxpayers that the increase in cost of raw materials and semi-products goods currently experienced in the country was largely due to the increase in the VAT by 50% (from 5% to 7.5%). More so, the increase in VAT rate in Nigeria was justifiable having been long overdue and considering the rate obtainable in other countries of the world and to encourage Nigeria government to judiciously use the revenue contributed by VAT to improve the living standard of the populace on economic development, access to income, access to quality education, security and quality health care.

The study covers the period from the inception of VAT collection to 2021 (1994-2021). This period is considered long enough to provide useful results to ascertain the evaluation of the contribution of VAT to resource mobilization in Nigeria.

## 1.8 Limitations of the Study

The lack of data and information on Value Added Tax collections for the period under review from the Federal Inland Revenue Service websites, as well as the secrecy of the government officials surrounding the gathering of crucial information to aid in the course of this study, were among the impeding factors the researcher encountered while conducting this research work, which had an impact on the extent of the thoroughness envisaged on the work.

More so, the officials of the Central Bank of Nigeria (CBN) which is also covered in the study are not willing to release the required information for use. They keep such information as 'confidential' and not for public consumption, therefore they were not very willing to provide all or relevant information needed for this research. This adversely delimits the extent of the study.

Finally, none withstanding the challenges faced in the course of this study with the respondents of each of the regulatory bodies mentioned above, in giving accurate and adequate information concerning the results of the Value Added Tax collections throughout the time. Hence, all efforts were on deck to ensuring reliable information through other secondary sources such as Internets, Journals, Articles and previous literature were gathered in order to give this research work the relevant information it deserves in making it a reference point for future researchers.

## 1.9 Operational Definitions of Terms

**Capital Expenditure;** These are monies spent by government on developmental purposes as essential services or social amenities to the citizenry on projects as such as schools, hospitals, good roads, bridges as well as other capital projects.

**Direct Taxes:** These are taxes levied directly on tax payers' income, properties or profits as the burden of tax rested on the persons/company that is to pay such tax. Examples include; PAYE, Company income tax, Capital gained tax, Stamp duties, Withholding tax

**Finance ACT 2019:** This ACT provides an amendment to the Finance ACT 2017 with special upgrade to the VAT rate from 5% to 7.5% effective 1st February, 2020.

**Finance ACT 2021;** This ACT provides an amendment to the Finance ACT 2019 & 2020.

**FIRS:** This stands as the acronym for the Federal Inland Revenue Service. It is body responsible for assessment, administration and collection of all taxes due to federal government such as Company income tax, Education tax, Petroleum Profit tax, WHT from corporate entities, CGT and VAT (which is our tax on focus) among others.

**Indirect Taxes:** These are taxes borne by persons other than the one from whom the taxes are collected or remitted to government. Example are Value Added Tax, Customs and Excise duties.

**Person/Taxpayers:** This includes taxable persons which includes individual (non-corporate bodies) and corporate bodies.

**Quid-pro-quo:** This is a Latin maxim which means "As tax is a compulsory contribution imposed by the government even though taxpayers may not receive nothing identifiable in return for their contribution, they nevertheless have the benefit of living in a relatively educated, healthy and safe society".

**Revenue Mobilization:** It is an act or idea through which government raise revenue that will aid in offering the nation with valuable services to the citizens, developing the nation, encouraging innovations and trade.

**Recurrent Expenditure;** These are the monies spent by government on expenses that are incurred on regularly basis which are not capital in nature. Examples are; personal costs, overhead costs and servicing of national debts.

**Taxation:** This is a compulsory levy imposed on the citizen's income, properties, goods and services by the government in order to generate revenue for government in providing basic amenities to the populace and other governmental functions.

**Value Added Tax:** This is a type of indirect tax levied on goods and service and the tax burden arising therefore are borne by the final consumer of the goods or service. It is charged at 7.5% on all consumption effective 1<sup>st</sup> February, 2020 in accordance with the new Finance Act 2020.

**VAT Output/Input:** While VAT output refers to as the sales tax, VAT input refers to as the purchase tax. VAT Output is the tax chargeable on all sales transactions that are not VAT exempt at the prevailing rate of 7.5% in Nigeria and VAT input is a purchase tax which is charged on goods or services bought for the purpose of reselling or use at the same rate.

## Endnotes

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## **Chapter Two**

### **Literature Review**

This section of this study is divided into three sub-sections; conceptual framework, theoretical framework and the review related empirical studies and; the conceptual framework presents issue on taxation with special mention on Value Added Tax (VAT) in general, public revenue and government expenditure, the theoretical framework theories relevant to the study and the review of related empirical studies.

The following headings are used to summarize this chapter:

#### **2.1 Conceptual Review**

#### **2.2 Theoretical Framework**

#### **2.3 Review of Empirical Studies**

#### **2.4 Conceptual Model**

#### **2.5 Summary of Gap in Literature Reviewed**

### **2.1 Conceptual Review**

#### **2.1.1 Taxation**

Taxation is one of the forces at work in the economic environment which have direct influence on the behavior of economic agents. Imposition of taxes affects the income of the various agents. A tax is a compulsory levy imposed by the government (Federal, State, or Local) and other legal entities; on their citizens who are under every obligation to pay the assessed amounts, since default or evasion attracts legal sanctions<sup>1</sup>. Therefore, a tax is a compulsory contribution or payment from a person or company to the government to defray the expenses incurred in the common interest of all, without reference to special benefits the

individual will device. Note that the benefit received by the taxpayers from the government are not usually related to or based upon the tax collected from such taxpayers. Government use taxes to influence and control economic behavior, where the type of tax used bears on the regulatory objective.

Taxation is a compulsory but non-penal levy by the government through its agent on the profits, properties, income, or consumption of its subjects or citizens. It is also viewed as a compulsory and obligatory contribution made by individuals and organizations towards defraying the expenditure of government. A charge levied by the government on the income or wealth of a person or corporate organization for the common benefit of all<sup>2</sup>. The term does not include specific charges made against a particular person or properties for current or permanent benefits and privileges accruing only to those paying such charges. Similarly, taxation is defined as the transfer of real economic resources from private sector to the public sector to finance public sector activities. It may be inferred from the foregoing that taxation is the transfer of financial resources from private economic agents like households and corporate bodies, to the public sector to finance the development of the society.

Tax is a compulsory contribution made by both living and non-living things to the government being a higher authority either directly or indirectly to fund its various activities and any refusal is meted with appropriate punishment. It is an involuntary payment made by a resident of a state in obeisance to a levy imposed by a constituted authority of a sovereign state at a particular period of time. Taxation is the process put in place by the government (whichever tier) to exercise authority on and over the imposition and collection of taxes based on enacted tax laws with which projects are financed. Taxation is therefore seen as the transfer of resources as income from the private sector to the public sector for its utilization to achieve some if not all the nation's economic and social goals such as provision of basic

amenities, social services, educational facilities, public health, transportation, capital formation etc<sup>105</sup>.

In modern economies, taxes are the most important source of governmental revenue. Taxes differ from other sources of revenue in that they are compulsory levies and are unnegotiated i.e., they are generally not paid in exchange for some specific thing, such as a particular public service, the sale of public property, or the issuance of public debt. While taxes are presumably collected for the welfare of taxpayers as a whole, the individual taxpayer's liability is independent of any specific benefit received.

Going by the definition of taxation and according to the author who identified four key issues which must be understood for taxation to play its functions in any society. First, a tax is a compulsory contribution made by the citizens to the government and this contribution is for general common use. Secondly, a tax imposes a general obligation on the tax payer. Thirdly, there is a presumption that the contribution to the public revenue made by the tax payers may not be equivalent to the benefits received. Finally, a tax is not imposed on a citizen by the government because it has rendered specific services to him or his family<sup>3</sup>. Thus, it is evident that a good tax structure plays a multiple role in the process of economic development of any nation which Nigeria is not an exception.

### **Purpose of Taxation**

During the 19th century the prevalent idea was that taxes served as a means to raise revenue for government to finance its expenditures and as well redistribute wealth and manage of the economy. In earlier times, and again today's world, governments have utilized taxation for purposes other than merely fiscal purposes. One useful way to view the purpose of taxation, is to distinguish between objectives of resource allocation, income redistribution, and economic stability. (Economic growth or development and international competitiveness are

sometimes listed as separate goals, but they can generally be subsumed under the other three.) The first objective, resource allocation, is furthered if tax policy does not interfere with market-determined allocations. The second objective, income redistribution, is meant to lessen inequalities in the distribution of income and wealth. The objective of stabilization implemented through tax policy, government expenditure policy, monetary policy, and debt management—is that of maintaining high employment and price stability.

The levying of taxes aims to raise revenue to fund government expenditures or to alter prices in order to affect demand. States and their functional equivalents throughout history have used money generated from taxation to carry out many governmental functions, among which are expenditures on economic infrastructure such as roads, public transportation, sanitation, legal systems, public safety, education, health care systems), military, scientific research, culture and the arts, public works, distribution, data collection and dissemination, public insurance, and the operation of government itself. A government's ability to raise taxes is called its fiscal capacity.

Another scholar pointed out that there are three basic objectives of taxation. These are to raise revenue for the government, to regulate the economy and economic activities and to control income and employment<sup>43</sup>. It was also noted that taxes generally have allocation, distributional and stabilization functions<sup>44</sup>. The allocation function of taxes entails the determination of the pattern of production, the goods that should be produced, who produces them, the relationship between the private and public sectors and the point of social balance between the two sectors. The distribution function of taxes relates to the manner in which the effective demand over economic goods is divided, among individuals in the society.

Accordingly, the distribution function deals with the distribution of income and wealth to ensure conformity with what society considers a fair or just state of distribution. The stabilization function of taxes seeks to attain high level of employment, a reasonable level of

price stability, an appropriate rate of economic growth, with allowances for effects on trade and on the balance of payments. The scope of these functions depends, inter alia, on the political and economic orientation of the people, their needs and aspirations as well as their willingness to pay tax. Thus, the extent to which a government can perform its functions depend largely on the ability to design tax plans and administration as well as the willingness and patriotism of the governed.

Tax is discriminatory in the sense that it is assessed on persons or property based on profits/incomes or gain, the benefit derived by citizens from tax payment is without reference to the contribution of individual tax payers. In line with this, a researcher posits that it is accurate to say that the primary objective and purpose of taxation in most nations of the world is essentially to generate revenue for government expenditure on social welfare such as provision of Defense, Law and Order, Health Services and Education<sup>45</sup>. Tax revenue can also be expended on capital projects otherwise called consumer expenditure, creating social and economic infrastructure which will improve the social life of the people. Other than facilitating the administrative function of government, taxation as the most potential source of revenue to the government of any nation, has played very crucial roles as an instrument of government's economic, social and fiscal policy.

Taxation is also used for the purpose of discouraging certain forms of anti-social behaviors in the society. Taxation can be extensively used in regulating the consumption pattern resulting in economic stabilization. Anti-social behaviors such as drinking of alcohol, smoking and pool betting can be controlled by imposition of higher taxes on production of such goods<sup>7</sup>.

The resource allocation dimension of taxation policy is its role in promoting investment as a critical measure of ensuring a healthy economy through creation of new wealth.

In Nigeria, government sometimes introduces tax incentives and attractive tax exemptions as an instrument to woo and induce local and foreign investors in areas such as manufacturing of goods, export processing, oil and gas and utilities, which are critical and necessary for the economic development and growth of the nation.

The use of transfer payments and benefits to those members of the society who are less well-off is to promote social equality. Taxation as a mechanism for income and wealth distribution holds that the burden of taxation should be heavier for the rich in the society than for the poor so that taxes collected are used to pay for social services for the less fortunate.

Harmonization is said to be the modern objective of Economic community of West African States (ECOWAS). The idea of a single market in ECOWAS member nations is to provide for the free movement of goods/services, capital and people between member states. The philosophy behind this single market therefore suggests that the tax systems of member states should be harmonized. Generally, taxation is a powerful and potential fiscal stabilizer employed by government of nations to plan development policies. It is a device to induce economic development and favorable balance of payments.

Taxation is divided into major types, they are direct and indirect taxes, and however, for the purpose of this thesis, only indirect taxes would be examined in details and that would-be Value-Added Tax (VAT).

### **2.1.2 Classes of Taxes**

In the literature of Public Finance, taxes have been classified in various ways according to who pays for them, who bears the ultimate burden of them, the extent to which the burden of tax can be shifted, and various other criteria. Taxes are most commonly classified as either direct or indirect. While examples of direct taxes include but not limited PAYEE, Corporate

Tax, Petroleum Profit and Withholding Taxes, indirect taxes are categorized as Value Added Tax, Stamp duties, Custom duties and excise duties to mention a few.

### **Direct Taxes**

Direct taxes are primarily taxes on natural persons (e.g., individuals) and they are typically based on the taxpayer's ability to pay as measured by income, consumption, or net wealth.

However, **ONLY** the basic four of the lists of Direct taxes will be explained below as that is not our focus for this research work.

**PAYE;** This is a direct tax type that is levied on the total personal income of individual taxpayers and unincorporated souls (individuals under employment, self-employed individuals, Partnership business, trustees, settlements, receivership) based on the agreed PAYEE tax table computation. Thus, the administration and collection of PAYE in Nigeria are being carried by the respective State Internal Revenue Service of each State while that of Police, Armed forces, and Personnel of the Ministry of Foreign Affairs are exercised by the FIRS.

**Corporate Tax;** This is the tax levied on the taxable profit of corporate entity be it Ltd or PLC at the end of each accounting (excluding corporation soles & companies engaged in petroleum operations- upstream operations. In Nigeria, it is a tax administered and collected by the FIRS (Federal Inland Revenue Service) at a rate which depends on the threshold of annual revenue which will be applied at 0%, 20% and 30% respectively as enshrined under Finance Act 2020<sup>105</sup>.

**Petroleum Profits Tax;** The taxation of petroleum operations started in Nigeria in 1959 with the enactment of the Petroleum Profit Tax Act. The administration of tax is under the FIRS which has the sole responsibility for the assessment and collection of the tax from Oil producing companies operating anywhere in Nigeria. Petroleum Companies taxed under this Act are regarded as being engaged in the Upstream Operation Sector of the Oil and Gas

Industry while the Petroleum Companies under the downstream (Petroleum refining, Petroleum marketing and Gas utilization projects) are subject to tax under the Company Income Tax Act.

**Education Tax;** This is a tax levied on all companies registered in Nigeria under the CAP EA LFN 2004 @ a tax rate of 2.5% of Assessable Profit (Finance Act 2020) of all incorporated bodies. The objective is to generate separate funds for the sustenance of the country's tertiary institutions. The tax is administered by FIRS which transfers all the collections to the Education Tax Fund Revenue Service of the Trustees who in turn manage the fund.

## **ii. Indirect Taxes**

Indirect taxes are levied on the production or consumption of goods and services or on transactions, including imports and exports. Examples include general and selective sales taxes, value-added taxes (VAT), taxes on any aspect of manufacturing or production (excise duty), taxes on legal transactions (stamp duties), and customs or import duties. General Sales taxes are levies that are applied to a substantial portion of consumer expenditures. The same tax rate can be applied to all taxed items, or different items (such as food or clothing) can be subject to different rates. Single-stage taxes can be collected at the retail level, as the U.S. states do, or they can be collected at a pre-retail (i.e., manufacturing or wholesale) level, as occurs in some developing countries.

Multistage taxes are applied at each stage in the production-distribution process. The VAT, which increased in popularity during the second half of the 20th century, is commonly collected by allowing the taxpayer to deduct credit for tax paid on purchases from liability on sales. The VAT has largely replaced the turnover tax; a tax on each stage of the production

and distribution chain, with no relief for tax paid at previous stages. The cumulative effect of the turnover tax, commonly known as tax cascading, distorts economic decisions.

Although they are generally applied to a wide range of products, sales taxes sometimes exempt necessities to reduce the tax burden of low-income households. By comparison, excises are levied only on particular commodities or services. While some countries impose excises and customs duties on almost everything from necessities such as bread, meat, and salt, to nonessentials such as cigarettes, wine, liquor, coffee, and tea, to luxuries such as jewels and furs, taxes on a limited group of products, alcoholic beverages, tobacco products, and motor fuel yield the bulk of excise revenues for most countries. In earlier centuries, taxes on consumer durables were applied to luxury commodities such as pianos, saddle horses, carriages, and billiard tables. Today a main luxury tax object is the automobile, largely because registration requirements facilitate administration of the tax. Some countries tax gambling and state-run lotteries have effects similar to excises, with the government's "take" being, in effect, a tax on gambling. Some countries impose taxes on raw materials, intermediate goods (e.g., mineral oil, alcohol), and machinery. Some excises and customs duties are specific i.e., they are levied on the basis of number, weight, length, volume, or other specific characteristics of the good or service being taxed.

Other excises, like sales taxes, are *ad valorem* levied on the value of the goods as measured by the price. Taxes on legal transactions are levied on the issue of shares, on the sale (or transfer) of houses and land, and on stock exchange transactions. For administrative reasons, they frequently take the form of stamp duties; that is, the legal or commercial document is stamped to denote payment of the tax. Many tax analysts regard stamp taxes as nuisance taxes; they are most often found in less-developed countries and frequently bog down the transactions to which they are applied<sup>106</sup>.

### **2.1.3 Value Added Tax**

As the name implies, the VAT refers to the tax on value added. What is the Value Added? The Value Added of a firm is the difference between a firm's sales and its purchases of inputs from other firms. In other words, it is the amount of value a firm contributes to a good or service by applying its own factors of production which are Land, Labor, Capital, and Entrepreneur. The concept of Value Added Tax is a consumption tax that is levied at a particular stage in the sale of a product or service. In other words, it is an indirect tax imposed on consumers at every stage of the consumption process from the raw stage to the finished stage. The idea of Value Added Tax system in Nigeria actually started with the acceptance of the recommendation of a study group on indirect taxation in November 1991. The decision to accept the recommendation was made in the 1992 budget speech by the then head of state, General Ibrahim Gbadamosi Babaginda. This resulted in setting up the modified Value Added Tax (MVAT) committee on 1st June 1992 as recommended by the study group<sup>4</sup>. The committee recommended that VAT should be administered by an independent commission but this idea was rejected by then government. Rather the government left it in the hands of the Federal Inland Revenue Services (FIRS) which was already saddled with the responsibility of administering most other taxes in Nigeria. Thus, the conceptualization of VAT in 1991 and the subsequent introduction of the VAT system in 1994 through decree 102 of 1993 marks the phasing out of the Sales Tax Decree No. 7 of 1986. The idea of VAT introduction over sales tax was to broaden the revenue base of the country.

Prior to the implementation of the 2020 Finance Act in Nigeria and under the VAT Act of 1993 as amended, it was obligatory for a seller/supplier to levy and pull together the VAT at a uniform rate of 5% on all billed sums for merchandises and services that are not exempted from VAT. However, with the introduction and implementation of the 2020 Finance Act, all materials and business activities that are not excused from VAT now attract a charge of 7.5% VAT, which accounts for 50% increase in the VAT rate. Sections 10 and 11 of VATA further

offers that the difference between contribution VAT and production VAT. While contribution VAT refers to the tax paid to suppliers on the purchase of taxable materials and financial undertakings, the productivity VAT is the tax received from customers on the value of taxable supplies and business activities sold or rendered<sup>5</sup>. Simply called the Goods and Services Tax (GST), it is levied on the Value Added that results from each exchange. It is an indirect tax collected from someone other than the person who actually bears the cost of the tax. It was invented by a French Economist, Maurice Laure in 1954 and was first introduced in France on April 10, 1954. Every step of the process of consumption is subject to VAT, a consumption tax that is paid by the end user of the item or service. According to the Value Added, each person is expected to charge and collect VAT at a fixed rate of 5% (now 7.5%) on all invoiced amounts for all goods and services that aren't exempt from paying VAT.

Instead, then is based on income, the VAT that people must pay is determined by their consumption. Every purchase is subject to the same VAT rate. It does not discriminate between the different income earning classes, in contrast to a progressive income tax.

Value Added Tax as a multi-stage tax imposed on the Value Added to goods and services as they proceed through various stages of production and distribution and to services as they are rendered which is eventually borne by the final consumer but collected at each stage of production and contribution chain<sup>6</sup>. This definition brings out the three characteristics of Value Added Tax which are: (i) VAT is consumer tax (ii) VAT incidence is on the final consumer (iii) VAT is a multi-stage tax. VAT is described as a tax levied at each stage which supplies changes hands. In the case of manufactured items, this could be at the primary producer, manufacturer, wholesaler, and retailer stages. It is ultimately borne by the consumer who is being registered for VAT purposes is unable to reclaim it. The above definitions of VAT suggest that there are intermediaries through which goods must pass before they reach the final consumer. Each time goods are passed from one stage to the other,

an intermediary value is added to it. It is this value that is being taxed and borne by the final consumer. Value Added Tax is described as a consumer tax and is charged before selling the goods. He said Value Added Tax is often defined as the sum of wages and profit.

### **Why was Value Added Tax introduced?**

The following are the reasons why the Federal Government introduced VAT in 1993 as amended <sup>104</sup>.

- a. The base of the sale tax in Nigeria was narrow; it covers only nine categories of goods and services including registered hotels and similar establishments. VAT covers all goods and services except those specifically exempted by the VAT Act;
- b. Only locally manufactured goods were targeted by the sales tax decree. VAT also covers imported goods and services, thus increasing the revenue accruing to the government;
- c. Imposition of VAT on imported goods was to further discourage importation;
- d. To widen the revenue base of the Government at the three tiers- Federal, State, and Local Government.
- e. To widen the tax net so as cover more tax evaders.
- f. The government desire to focus more on indirect taxes to avoid the problem encountered in the assessment and collection of direct taxes;
- g. VAT has assumed an international dimension as it is widely adopted and so it is desirable for Nigeria to explore the modern system;
- h. It is easy to administer by way of assessment, enforcement, and collection.

#### **2.1.4 VAT Administration in Nigeria**

In Nigeria, VAT took the place of the sales tax system that had been in effect since Decree No. 7 of 1986 as enacted. It is believed to have entered Nigeria's economic agenda in 1986. Dr. Chukwu Okongwu, a former minister of finance, later threw it out in 1991. However, a research committee on indirect taxes led by Dr. Sylvester Ugoh reignited the effort to adopt

VAT in Nigeria. In November 1991, this organization began to take action. A committee headed by Mr. Emmanuel Ijewere FCA, a former ICAN president, was formed in response to the study group's findings to do more research on the topic and offer suggestions. Based on recommendations of this second group, VAT was finally adopted in Nigeria in 1993 and began execution with effect from January 1994 through the instrumentality of the Value Added Tax Act No. 102 of 1993. As of that date, VAT was levied on a variety of goods and services at a uniform rate of 5%. In 2007, there were some attempts to increase the rate to about 10% through the enactment of Value Added Tax Act No. 2 of 2007 but failed as Nigerians reacted to such an increase. Since the 1999 fiscal year, the federal, state (including the federal capital territory), and local governments have each received 15%, 50%, and 35% of the earnings of VAT inflows into the VAT pool account on a monthly basis. The distribution of the VAT earnings is done in a way that also takes into account Nigeria's revenue derivation concept<sup>9</sup>.

VAT is an indirect tax imposed on virtually all goods and services, whether produced or rendered in Nigeria or not. Exemptions however were granted in respect of medical and pharmaceutical products, basic food items, fertilizers, agricultural and centenary medicine, books and educational items, farming and transport equipment, etc. VAT effectively replaced the former sales tax, which, under the constitution, was supposed to be charged by states and not the Federal Government. Every person, whether resident in Nigeria or non-resident in Nigeria, who sells goods or renders services in Nigeria under the VAT Act (as amended) is obligated to register as a VAT agent within six months of its commencement of business in Nigeria with the Federal Board of Inland Revenue (FBIR). The VAT Act (as amended) provides that a foreign non-resident person or company that carries on economic activities in Nigeria is also obligated to register as VAT agent, using the address of the person with whom it has a subsisting economic activity for purposes of correspondence with FBIR and for

compliance with the VAT Law. The foreign non-resident person or company is required upon registration for VAT to include in its invoice VAT at 5% (now 7.5%) with instructions to the receiver of the goods or services to remit the VAT in the currency of the transaction to the Nigerian government on behalf of the foreign non-resident person. A taxable person, whether a Nigerian resident outside Nigeria, who fails or refuses to register for VAT administration within six months of engaging in any economic activity in the territory of Nigeria is liable to pay a penalty of N50,000 for the first month that the failure occurs and a further penalty of N25,000 for each subsequent month in which the failure continues. In addition to the fines for non-registration, Section 32 of the VAT Act (as amended) authorizes the Federal Inland Revenue Service (FIRS) to barricade the location where the disputed commercial activity is being conducted on Nigerian soil.

The stark reality in most developing countries is that while there are several budgetary pressures as a result of ever-increasing demand for government expenditure, there is a limited scope for raising extra tax revenues.

Governments have at their disposal many tax instruments that can be used singly or in concert to finance their activities. These tax alternatives include personal and corporate income taxes, sales taxes, value added taxes, capital gains taxes and numerous others. In choosing what tax instruments to use and what rates to impose, governments are typically influenced by their expectations of the effects of taxation on investment and economic activities, including Foreign Direct Investments (FDI). The researchers stated that there are extensive empirical studies that high corporate income tax rates are associated with low levels of FDI. VAT rate in Nigeria has been determined in a way that minimizes disincentive efforts on economic activities. Analysts opined that economic and social development laws and policies provide the basis for effective state action that lifts society from underdevelopment, improves the standard of living and facilities for the realization of the millennium development goals.

According to the below list is to the enabling statute (Value Added Tax Act, 1993 as modified), goods and services are exempt from VAT in Nigeria as enshrined under the Finance Act 2019 which amended a number of provisions in the Value Added Tax (modification) Order 2020 with the commencement date of 3<sup>rd</sup> February, 2020 by the Federal ministry of Finance as well as 2021 VAT (modification) order issued to commence 30<sup>th</sup> July, 2021<sup>10</sup>.

### **Exempted Goods**

1. All Medical and Pharmaceutical Products- These include healthcare related equipment, services and medicine for both human & animals but excludes cosmetology, fitness devices, spa, gymnasium and similar services.
2. Basic food Items- These include both Agro and Aqua based staple food processing. However, food items sold in restaurants, hotels, eateries, lounges and other similar premises are exempted.
3. Books and Educational materials- These covers both handy and electronic books.
4. Baby Products- The VAT order exemption is limited to babies' activities, entertainment products, accessories etc. from age 0-3years.
5. Commercial Vehicles and their Spare Parts-Shared passenger road-transport service.
6. Agricultural equipment and products and veterinary medicine.
7. Fertilizers, farming machinery and farming transportation equipment.
8. All exports of goods and services.
9. Plant and Machinery used in export processing zone
10. Plant, machinery and equipment purchased for utilization of gas in the downstream petroleum operations.

11. Tractors, ploughs, agricultural equipment and implements purchased for agricultural purpose.
12. Magazines and Newspapers.
13. Locally manufactured sanitary towels, pads, or tampons.
14. Proceeds from the disposals of short-term state, local government, and corporate bonds (including supra- nationals' bonds).
15. Save for Bonds issued by the Federal Government, which shall continue to enjoy tax exemption as provided under the Value Added Tax Act, the tax exemption granted pursuant to order 1 of this Order is for a period of 10years from the date of this order.
16. Petroleum Products- The schedule to the Order exempts petroleum products (aviation & motor spirit), kerosene, natural gas and other liquefied petroleum gases and gaseous hydrocarbons.
17. Renewable Energy.
18. Gas supplied by gas producing companies to Electricity Generating companies (GENCO's), Electricity generated by GENCOs and supplied to National Grid or Nigeria Bulk Electricity Trading Company (NBET) and Electricity Distribution Companies (DISCO's).

#### **Service Exempt**

1. Medical Services
2. Services rendered by microfinance banks, people's banks and mortgage Institutions.
3. Plays and performances conducted by educational institutions as part of learning.
4. All Export Services
5. Tuition relating to Nursery, Primary, Secondary and Tertiary Education.

Those taxable goods and services as specified in VAT decree of 1993 was arranged by<sup>11</sup>.

## **Taxable Goods**

1. All Goods manufactured and assemble in Nigeria.
2. All goods imported into Nigeria.
3. All second-hand goods.
4. All household furniture and equipment.
5. Jewel and jewelry.
6. Textile, cloth, carpet, and rug.
7. Bear, wine, liquor, soft drinks, treated water.
8. All vehicles and their spare parts excluding commercial vehicles and their spare parts
9. Perfumes and cosmetics (including toiletries)
10. Soap and detergents
11. Mining and minerals
12. Office furniture and equipment
13. Electrical materials of description
14. Incorporeal Properties (formerly exempted before the Finance Act 2019).

## **Taxable Services**

1. All services rendered by Financial Institutions to consumers.
2. Accounting services
3. Provision of reports, advice, information, or similar technical service in the following areas:
  - i. Management, financial and taxation.
  - ii. Recruitment, staff, and training.
  - iii. Marketing research.

From the above items listed it becomes obvious that Value Added Tax covers almost every aspect of our economic and human lives. It is a tax that most consumers pay without knowing, yet it helps the government to generate substantial revenue for economic growth. The broad nature of VAT in Nigeria when stated was that the Nigeria VAT which is a replacement for the sale tax of 1986 have a very wide based with relative few exemptions and only exports are zero-rated<sup>12</sup>.

According to Section 7 of the VAT Act, value-added tax is managed in Nigeria by the FIRS through its VAT directorate in Abuja. Businesses must register for VAT during the first six months of their establishment, according to Section 8(1) of the VAT. The company must provide documentation of its VAT registration and previous VAT remittances in order to conduct business with any agency of the Nigerian government, regardless of tier. A registered person is expected to submit VAT returns on a monthly basis and must either pay the FIRS the difference between input and output VATs or receive it from them. The FIRS is permitted by Section 32 of the VAT Act, as amended, to seal up the locations from where the relevant economic activity is being conducted on Nigerian territory for VAT defaulters.

#### **2.1.5 Value Added Tax Law Amendments Made Recently, as Pertained to the Finance Act of 2019**

The First Schedule of the VAT Act as well as Sections 2, 4, 8, 10, 14, 15, and 45 are all amended by the Finance Act of 2019. In line with the Nigerian Finance Act 2019, the Value Added Tax law has undergone the following significant revisions.

- (i) Services will be deemed to have been provided in Nigeria and therefore subject to VAT where the recipient is in Nigeria, regardless of whether the services were rendered within or outside Nigeria. However, where the recipient of a service is outside Nigeria, such service shall be deemed “export service” and hence would not be chargeable to VAT.

- (ii) With effect from January 1999, the formula was adjusted as follows: FGN 15%, States 50%, and LGAs and area councils of the FCT 35% (with a net of 4 percent as the cost of collection by the FIRS). The share of the States and that of the local Governments is shared amongst them using the factors of Equality 50%, population 30%, and derivation 20%.
- (iii) The Act further clarifies that the services rendered to the fixed base or permanent establishments of non-resident persons do not qualify as exported service and are therefore subject to VAT. The proposed definition of “exported service” in the Act suggests that the service provided must flow directly from the Nigeria resident to the person resident outside Nigeria but does not include transactions where the service in question flows from one Nigeria resident to another Nigeria resident which now acts as the third party to the main beneficiary, in such regards such service will be liable to VAT.
- (iv) A boost in the VAT rate from 5% to 7.5%.
- (v) Exemption of companies with annual turnover of less than Twenty-Five Million Naira (N25,000,000) threshold from the requirement of filing VAT returns. However, any company who does not falls within this threshold would be required to register, remit, issue tax invoice and collect VAT from its clients on behalf of government.
- (vi) Intangible products are now included in the definitions of supply and goods and services.
- (vii) The VAT statute introduces the reverse charge provision. This regulation mandates that receivers of goods and services provided in Nigeria self-report the value-added tax (VAT) on products acquired from non-residents and remit the

tax due on the transaction in the currency of the transaction on or before the due date.

- (viii) Removal of the requirement for foreign entities carrying on business in Nigeria to register for VAT in Nigeria and include VAT charges in their invoices.
- (ix) The management of linked parties and the removal of the VAT charge on the sale or transfer of business assets.
- (x) Incorporation assets, such as stakes in oil concessions, are now included in the definition of taxable goods. This may be taken to suggest that stocks are now subject to VAT.
- (xi) As of right now, the VAT remittance must be done on a cash basis, meaning that the difference between the production and VAT collected and input VAT paid in the preceding month.
- (xii) For the purpose of VAT exemption, a detailed explanation of what comprises basic food products under the VAT Act has been established.
- (xiii) The definition of goods and services has been expanded to cover intangible items that a person has ownership interest in, or derives benefit from, and which can be transferred to another person other than land.
- (xiv) Exemption of locally manufactured sanitary pads, tampons, towels also exempt from VAT are tuition costs for kindergarten, secondary, and higher education.
- (xv) Registration as a VAT agent within the first six month from the date of commencement of trade has now been removed, hence companies to immediately register for VAT upon commencement of business.

- (xvi) Penalty for failure to register has been increased from N10,000 to N50,000 for the first month of default, while subsequent months of default will now attract N25,000 as against the previously N5,000.
- (xvii) A company who permanently ceases to carry on all its business or trades in Nigeria shall notify the service of such cessation within 3months for the purpose of deregulation.

#### **2.1.6 Perception of Private Business Owners and Average Nigeria on the Most Recent Rise in Nigeria's VAT Level**

In as much as the decision to increase the VAT rate in Nigeria was long overdue as there have been so many unsuccessful attempts to this effect in time past, and considering the fact that the rate seems to be the lowest in most developing and the developed countries around the world. Hence, such increase is pertinent as government is of the view that since those higher income earners would presumably spend more of their disposal income on luxury items, they will be pay more VAT and this will automatically lead to increase in the revenue base of government that would allow for the execution of the development plans and as well meet up the payment of the minimize budget deficits and implement a new minimum wage.

However, the opposition and the organized labor were of the view that the VAT increase was ill-timed and vehemently disagreed based on the following reason(s).

- (i) From the manufacturer and private business point of view, the increase in VAT rate was the reason behind the hike in the prices of raw materials and semi-finished goods and services which has caused undue hardship on the standard of living of average Nigerians.

- (ii) The increase in VAT rate will likely contribute to an uptick in corruption and poor administration, particularly at the state level where the majority of the money made from them might not be designated for education or capital projects.
- (iii) Economists are of the opinion that an indirect tax increase will have an impact on the cost of goods and services, which will raise inflation rates.
- (iv) The increase in VAT rate was that contended that such a move is likely to increase inflation, lead to an increase in interest rates, create more unemployment, and generally make people poorer than they may have been, which unfortunately is the current state of things in the country.
- (v) The introduction of the cash basis system under the Finance Act 2019, would invariably defeat the use of the VAT deducted at source by government MDAs and Companies into the oil and gas sector from the payment made to their suppliers since this leaves such provider with claimable input VAT without appropriate output VAT, resulting in a permanent refund position.
- (vi) Nigeria as a country still practices taxpayers can only offset a small part of their input VAT contrary to their output VAT under the new VAT structure. charged<sup>14</sup>. In light of the foregoing, the increase in the VAT rate would ultimately have a greater detrimental effect if the VAT was not also increased.
- (vii) The clause in the Finance Act 2019 is VAT section that broadens a description of taxable items to incorporate indestructible things, such as stakes in oil concessions, is likely to discourage investment activities, which might undermine indigenous material initiatives by governments. Sale of oil concession interests now carries a 7.5% VAT. Processing expenses for divestiture transactions may rise as a result of

this Act modification. This will mostly have an impact on local businesses who may be trying to obtain money to buy fresh resources.

- (viii) A rise in the VAT may deter foreign investment in Nigeria's industrial sector and SMEs, which are reluctant to raise the pricing of the items they sell will either reduce the quality or lay off their workers as a measure to reducing costs.
- (ix) There is no assurance that the advantages of raising the VAT will outweigh the suffering caused to Nigerians by such an increase. The Laffer curve, which describes the relationship amongst tax rates and levels of government revenue, has the implication that lowering or raising tax rates over a certain threshold will be ineffective for boosting tax revenue<sup>15</sup>.
- (x) Increasing the VAT rate will go against the intention of reducing inequalities and financial hardships disparity reduction, given the existing Nigeria has a wide economic gap. Right now, there is already a significant level of cost associated with access to economic possibilities for the vast majority of the poor in the country<sup>16</sup>.

### **2.1.7 Contribution of Value Added Tax to Nigeria Economy**

VAT is already a major revenue source in Nigeria judging by its contribution to the National treasury which has been on upward shift since inception till date except for 2015 when there was a drop of 4% compared to the figure recorded in 2014. ₦7.261 billion in 1994 to ₦802.96billion in 2014. Though in 2015 Nigeria experience a 4% reduction in VAT revenue collected compared to its previous year's collection, the actual amount collected in 2015 amounted ₦767.33billion, despite the reduction in VAT revenue generated in 2015, its contribution to total revenue in Nigeria increased from 17% which was recorded in 2014 to 21% in 2015<sup>17</sup>. In 2016, total VAT collected increase to ₦828.2billion which represented 8%

increase from the preceding year, in 2017 total VAT collected was #972.35billion which was 17% increase from the amount collected in 2016. In 2018 VAT revenue increased by 14% from its previous year collection of ₦972.35million to ₦1, 108.14 trillion and 2020, the total VAT collected was ₦1, 536.824 trillion which is about 29% increase from the amount collected in 2019, while the VAT generated in 2021 stood at a sum of N2, 072.850 trillion which represented 35% increase compared to 2020 and the highest figure the country has recorded since 2015 and that the figure surpassed the budgeted figure of N1.84 trillion by 12.5%. Table 2.1 gives the breakdown Value Added Tax (VAT) generated and Gross Domestic Product (GDP) spanning from 1994 to 2021.

**Table 2.1:** Value Added Tax and Gross Domestic Product (GDP) (1994 – 2021)

| <b>Years</b> | <b>VAT (₦ 'Million)</b> | <b>GDP (₦ 'Million)</b> | <b>% Growth in VAT</b> |
|--------------|-------------------------|-------------------------|------------------------|
| 1994         | 7,261                   | 1,399,702               | -                      |
| 1995         | 20,761                  | 2,907,358               | 186%                   |
| 1996         | 31,000                  | 4,032,300               | 49%                    |
| 1997         | 34,000                  | 4,189,250               | 10%                    |
| 1998         | 36,000                  | 3,989,450               | 6%                     |
| 1999         | 47,100                  | 4,679,212               | 31%                    |
| 2000         | 57,500                  | 6,713,575               | 22%                    |
| 2001         | 91,800                  | 6,895,198               | 60%                    |
| 2002         | 108,600                 | 7,795,758               | 18%                    |
| 2003         | 136,400                 | 9,913,518               | 26%                    |
| 2004         | 159,500                 | 11,411,067              | 17%                    |
| 2005         | 178,100                 | 14,610,882              | 12%                    |
| 2006         | 221,600                 | 18,564,595              | 24%                    |
| 2007         | 289,600                 | 20,657,318              | 31%                    |
| 2008         | 401,700                 | 24,296,329              | 39%                    |
| 2009         | 481,400                 | 24,794,239              | 20%                    |
| 2010         | 564,890                 | 54,612,264              | 17%                    |

|      |           |             |     |
|------|-----------|-------------|-----|
| 2011 | 659,154   | 62,980,397  | 17% |
| 2012 | 710,555   | 71,713,935  | 8%  |
| 2013 | 802,684   | 80,092,563  | 13% |
| 2014 | 802,965   | 89,043,615  | 0%  |
| 2015 | 767,330   | 93,426,656  | -4% |
| 2016 | 828,200   | 108,916,911 | 8%  |
| 2017 | 972,350   | 114,834,459 | 17% |
| 2018 | 1,108,140 | 121,674,276 | 14% |
| 2019 | 1,188,580 | 144,210,492 | 7%  |
| 2020 | 1,536,834 | 152,324,071 | 29% |
| 2021 | 2,072,850 | 175,500,000 | 35% |

**Source:** CBN Statistical Bulletin; Federal Inland Revenue Service, World Bank and National Bureau of Statistics Report 2021.

### 2.1.8 Public Revenue

In the literature of public finance, Government revenue can be categorized into both Oil and Non-Oil revenue sources. In Nigeria, Federal Government derives its revenue from various (Oil & Non-Oil), kept in the Consolidated Revenue Fund (CRF). Thus, the various Heads of public revenue sources can be classified into;

a. **Federation Account Revenue Heads**– Section 162 of the 1999 Constitution of the FRN defines Federation Accounts as such into which all revenues collected by Government of the federation shall be paid (except all those revenue Heads due to be paid into the CRF or Federal Government Account Revenue Heads). It is a distributable pool account from which allocations are made to the Federal, State and Local Government councils on such terms and in a manner described by the law. Currently, sources of revenue payable into the Federation Accounts categorized into three heads;

Head 1 – Direct Taxes- Company Income Tax. Petroleum Profit Tax, Capital Gain Tax, Education Tax, PAYE, Back duty Assessment, Nigeria Police Trust Fund.

Head 2- Indirect Taxes- Value Added Tax, Custom Duty, Excise Duty, Advalorem levy, Stamp Duties.

Head 3- Mining- Oil pipeline license fees, rents of mining rights, royalties on minerals, NNPC earnings from direct sales, penalties on gas flared and rent of oil wells.

b) **Federal Government Accounts| CRF**- The various revenue sources credited into the CRF are strictly for Federal Government and not to be shared among the three tiers of government. Revenue sources into this fund are classified into the following heads;

Head 6 Statutory Allocation- The refers to as the allocation due to the federal government from the federation accounts which currently allocated as follows; FG-52.68%, SG-26.72% and Local Government Councils- LGA- 20.62%.

Head 7- Direct Taxes – PAYE of Armed Forces, Police Personnel, Foreign Service Officers and Resident of FCT.

Head 8- License & Internal Revenue- Revenue realized from issuance of Arms & Ammunitions, Goldsmiths, Radio & TV license fees

Head 9- Mining (Solid Minerals)

Head 10- Fees from services rendered by Government agencies such as court fees, medical fees, school fees, fines & fees e.t.c

Head 11 – Earnings and sales derived from the use and disposal of government properties e.g sales of stores, publications and stamps, commission on money order and poundage on postal orders.

Head 12 – Income from the rent of government property such as Government Quarters, Government Residential Areas (GRA), Government Building or Office Spaces and Government Land.

Head 13 & 14 - Interest & Repayments (General& State) – These are interest accruing from government loans to both individuals and States government.

Head 15 – Sales of Armed Forces Properties

Head 16- Reimbursements

Head 17- Other Miscellaneous

Of all the various public revenue sources mentioned above (Oil and Non-Oil), Value Added Tax (VAT) has been proven overtime as an indirect revenue source that is practically impossible or difficult to evade by unscrupulous tax payers as this category of taxes are embedded in consumption of goods and services which are paid by taxpayer unknowingly while direct taxes can be evaded by unpatriotic taxpayers based on the its incidence and administration.

VAT as one the major public revenue sources for the government generates tax revenue for the Nigerian federation and it is not shared along with other taxes raised from the federation account. Rather, it is accrued to the VAT pool account from where allocations are made to the three tiers of government in accordance with the agreed sharing formula since 1999. From inception in 1993 till 2019, the VAT rate was charged at five percent on all vatable goods and service, despite various attempts to alter the rate as it was among the lowest rates among countries of the world if not the lowest sales rate in the world as at then. However, despite the agitation to stop its increment by taxpayers who are of the opinion that it would automatically increase the prices of goods and services or some corrupt leaders may divert the resources to

their personal pockets, the Finance Act 2020 formally allows for the increase in the VAT rate from 5% to 7.5%.

This was done to provide a leverage for increase in tax revenue. In recent times, frantic discussion centering on tax justice with the view to improving tax revenue have been ongoing in the tax world among tax experts and practitioners. Their posits has been that some taxpayers would not have kicked against such increase in the VAT rate before its eventual increase in 2019 (Finance Act 2020) or perceived that such increase will automatically skyrocketed the prices of goods and services in Nigeria if taxpayers are treated right and government makes taxpayers enjoyed the value for the taxes paid and as well broadened the tax net to capture individuals who do not pay tax in order with the view to increasing government revenue and as well ensure justice among the patriotic taxpayers by giving stiff penalties to erring tax payers especially the privileged ones that feel they are supreme to the law.

In Nigeria today, and according to the statistical data of the World Bank estimate, our entire population stood at over 200 million people with only 62 million people (represents 31%) active tax payers' population<sup>107</sup>. Of this category of active people, about 17% are totally unemployed. If the number of unemployed people is removed, there is about 52 million people that can be subjected to tax. This analysis however, is for direct tax as this form of tax is concerned with the number of people employed for Pay As You Earn (PAYE) purpose. The beauty about indirect tax or consumption tax is that it cuts across both the employed and the unemployed.

International Monetary Fund (IMF) reports showed Nigeria still has one of the least tax rates in the world despite the increase from 5% to 7.5% just three years ago. It is the most populous African country which provides a balance and probable justification for the low tax rate. It is important to note that VAT is a function of spending and this spending is done by

two major actors in the economy which are the private sector in the form of individuals, household or firms and the government which spending is basically in the form of capital expenditure and recurrent expenditure. Although, there have been various studies conducted to examine the effect of public revenue (special mention on Value Added Tax) and government expenditure effect on consumers spending. Nonetheless, this study is therefore set out to further examine the relationship that exist btw the three variables namely Value Added Tax, Public Revenue and Government Expenditure with proven statistical data through secondary data sources from 1994 -2021.

### **2.1.9 Government Expenditure**

Government Expenditure revolves around two main actors which are Capital Expenditure and Recurrent Expenditure<sup>108</sup>. Capital expenditure is government cash outflow incurred on infrastructural development and paid from the Development Funds issued by the Minister of Finance from the following Warrants;

- i. Development Fund General Warrant (DFAGW) F.R 417
- ii. Provisional Development Fund General Warrant (PDFAGW) F.R 418
- iii. Development Fund Supplementary General Warrant (DFSGW) F.R 419
- iv. Development Fund Reserve Expenditure Warrant (DFREW) F.R 420
- v. Development Fund Supplementary Warrant (DFSW) F.R 421
- vi. Development Fund (Special) Warrant (DFSW) F.R 422
- vii. Development Fund Virement Warrant (DFVW) F.R 423

Thus, Development Funds from which capital expenditures were paid from by the Government was established by the following enactments which are; Constitution of the Federal of Nigeria 1999, Finance (Control & Management) Act 1958 and the Audit Ordinance Act 1956. The Fund was established for the purpose of capital development

projects and the sources of monies accruing to the Development Fund could be divided into the following;

- i. Contributions from the Consolidated Revenue Funds (CRF)
- ii. External Grants
- iii. External Loans
- iv. Internal Loans

The charges to the Development Fund may be categorized into four main classes are;

- i. Summary of Capital Expenditures
- ii. General Administration
- iii. External Financial Obligations
- iv. Loans made to State Government in Nigeria

Government intervention in the provision of capital expenditures was to bridge the gap between the rich and poor by making available public goods to all and sundries and also to ensure economic growth. Capital expenditure is an important variable that the government can't weak in order to arrive at desired objective. Capital expenditure increased between 1974 and 1986 during the time of oil boom in Nigeria and as a result the increase in capital expenditure, the government was able to make investments across various sectors thus providing the basis for the opening up of industrial activities across various sectors from which tax revenue can be raised. Based on the knowledge of public sector reporting, a record of actual capital expenditure incurred by the government can be obtained from the capital development fund account.

### **Recurrent Expenditure**

This is a type of government expenditure which involves government spending on personnel cost (wage, salaries etc.), overhead costs, servicing of national debts, pensions and gratuity and amongst other recurring expenditures to drive the continual processes of the government.

Recurrent Expenditures are usually paid from the Consolidated Revenue Fund (CRF) upon the approval of the Minister of Finance conveyed through of the following forms of warrants;

- i. Annual General Warrant (A.G.W) of Recurrent Expenditure
- ii. Provisional General Warrant (P.G.W) of Recurrent Expenditure
- iii. Supplementary General Warrant (S.G.W) of Recurrent Expenditure
- iv. Reserve Expenditure Warrant (R.E.W) of Recurrent Expenditure
- v. Supplementary (Contingencies) Warrant of Recurrent Expenditure
- vi. Virement Warrant (V.W) of Recurrent Expenditure

Recurrent expenditure has also been described as government spending excluding outflow on infrastructural development. Thus, from these descriptions, recurrent expenditure is government outflow on non-capital projects. This form of government expenditure has its role in stimulating the economy and for the government to achieve some of its set objectives, it needs to be mindful of its recurrent expenditure. Accounting, information on recurrent expenditure made by the government can easily be gotten from the Consolidated Revenue Fund Previous researches reveal that overtime in Nigeria, recurrent expenditure has been the bulk of government expenditure however, concerned Nigerians have been advocating for reduction in the cost of governance by the all tiers of government in order to increase capital expenditure as was observed in the 70's and 80's during the period of increasing oil revenue.

### **Consumer Expenditure**

This represent private household spending on goods and services. From the Keynesian perspective, consumer expenditure is a function of disposable income i.e. gross income less

taxes. In contrast to this, the new classical macroeconomics state that household spending for a particular period in time is a function of the present income and the future expected income inclusive of the estimation of interest rates of borrowings. This further shows the economic sustainability stir up use of the resources available within their internal environment to achieve sustenance. Some researchers posited resource-based theory as where an entity identifies its internal capabilities and invest on them in order to increase competitive advantage. This therefore determines the extent to which a firm will perform. Although other scholars have argued on entities having resources unique to the entity alone to experience a sustained competitive advantage. However, some experts are of the opinion that competitive advantage might not just be as a result of having unique resources but the ability to harness them productively. Some of the identifiable features of such uniquely owned resources as they must be valuable, rare, inimitable and non-substitutable. In this regard, this study seeks to examine how government can generate more revenue based on two major actors (private household and the public sector) within its jurisdiction.

## **2.2 Theoretical Framework**

Taxation forms the most important source of revenue to the government. The Value Added Tax is one of such revenue sources today since its inception in 1994 in Nigeria. The theory of VAT was first credited to a French Economist Maurice Laure in 1954 and was first introduced in France on the April 10th 1954. Maurice Laures theory of VAT was envisioned on sale tax on goods that did not affect the cost of manufacture or distribution but was collected on the final price charged to the consumer<sup>17</sup>. Thus, due to its ease of payment and ready comprehensibility, several countries across the world including Nigeria decided to adopt and use this type of government revenue source. Since VAT is a subset of the entire tax system in Nigeria, it becomes imperative to look at the basic theories surrounding taxation. These theories include among the following.

### **2.2.1 Theory of Demand**

The famous demand theory was developed with the view to explain the interplay between price and quantity demanded. This theory states that the higher the price the lower the quantity demanded and the lower the price, the higher the quantity demanded at ceteris paribus. Critiques of this theory states that consumers demand ability is not limited to only price but also taste and preference of consumers. However, overtime, this theory has proven to be correct with the assumption of man being rational. From the lens of demand theory, this study seeks to examine how government can use consumer expenditure level in order to generate optimum tax revenue for the government<sup>107</sup>.

### **2.2.2 Theory of Laffer Curve**

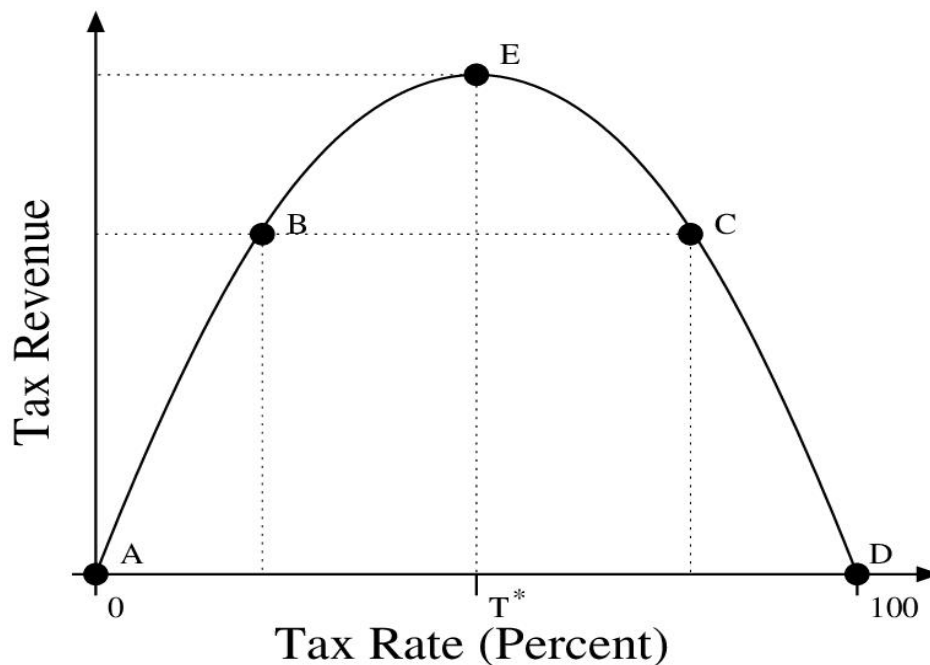
The theory was postulated to explain the theoretical representation of the relationship between government revenue raise by taxation and all possible rates of taxation. The theory was demonstrated with a curve based on his observation that increasing tax rate beyond a certain point will become counter-productive for raising further tax revenue because of diminishing returns <sup>18</sup>. In Economics, the Laffer curve shows a possible correlation amongst taxing rates and the amount of tax income that results. The Laffer curve posits that there is a tax rate between 0% and 100% that maximizes government tax collection and that no tax money is produced at the extreme tax rates of 0% and 100%. Taxable income elasticity, or the degree to which taxable income varies in reaction to changes in the taxation rate, determines the form of the curve.

As popularized by supply-side economist Arthur Laffer, a curve is depicted as a graph that begins with a tax rate of 0% and no revenue, increases to a maximum rate of revenue at a middle tax rate, and then drops down to zero revenue at a 100% tax rate. Nevertheless, there is disagreement and uncertainty over the curve's form economists<sup>19</sup>. Considering that the rate

of taxes and revenue are continuous functions, and that zero revenue is collected at the endpoints, Rolle's Theorem states that a maximum must exist<sup>21, 22</sup>.

The Laffer curve has the connotation that raising tax rates over a certain threshold is ineffective for boosting tax collection. The Laffer curve has been used by conservatives in the US to support their claim that higher taxes may reduce tax collection. However, the hypothetical maximum income point of the Laffer curve for any given market can only be calculated and is frequently subject to disagreement. According to the New Palgrave Dictionary of Economics, assessments of the income tax rate that maximize revenue have been significantly varying, with a mid-range of around 70%<sup>23</sup>. None of the top economists surveyed in 2012 believed that lowering the federal income tax rate in the US would result in increased yearly tax revenue within the five years<sup>24</sup>. The U.S. marginal top [tax] rate is not at the Laffer curve's peak, claims a 2012 research<sup>25</sup>.

During a session in the afternoon with Ford Administration officials Dick Cheney and Donald Rumsfeld in 1974, where Arthur Laffer allegedly sketched the Laffer curve on a napkin to explain his argument<sup>20</sup>, the curve gained popularity among American politicians. Jude Wanniski, who was also there, was the one who first used the phrase "Laffer curve" in the conference. The fundamental idea was not novel; Laffer himself identifies precedents in the writings of the social philosopher Ibn Khaldun from the fourteenth century and others<sup>26</sup>.



**Figure 2.1:** Laffer Curve

Rising to popularity in the 1980s, the Laffer Curve was a driving force behind economic policies during the Reagan Administration in the U.S. and under Margaret Thatcher in the U.K. Over the subsequent decades, the ideas behind the theory have become so ingrained in economic discourse that while most are unfamiliar with the term Laffer Curve, they are versed in the concept. Summary of the Laffer Curve are:

1. The premise of the Laffer curve is that tax rates should fall somewhere in the middle range. At 0%, there is no revenue since none is collected; at 100%, there is no revenue since no one would work.
2. It also supports cutting taxes, even temporarily, to boost productivity and encourage corporations to expand—thus causing economic growth and increasing tax revenue.
3. The concept holds a lot of appeal as it supports lowering tax rates while presuming to increase tax revenue and reduce the deficit, all of which is popular among voters.
4. However, some economists aren't convinced that the Laffer curve works as well in practice as it does in theory, debating where the ideal tax rate falls and how much lowering taxes actually incentivizes economic expansion.

Edgar L. Feige and Robert T. McGee created a macroeconomic model in the early 1980s, and from it, they deduced a Laffer curve. The model states that the severity of the supply side effects, the rate of progression of the tax system, and the amount of the undiscovered variable all affect the form and location of the Laffer curve economy<sup>27,28</sup>. The apex of the Laffer curve was anticipated by a model developed by economist Paul Pecorino in 1995 to occur at tax rates approximately 65%<sup>29</sup>. The average federal tax rate that maximizes revenue was estimated by Y. Hsing in a draft report that examined the US economy between 1959 and 1991 to be around 32.67% and 35.21%<sup>30</sup>. The point of maximum tax income in Sweden during the 1970s, according to a model including actual data that was presented in a 1981 paper published in the Journal of Political Economy, would have been 70%<sup>31</sup>. According to a 2011, research by Trabandt and Uhlig that was published in the Journal of Monetary Economics, the US and most of Europe's economy were on the left side of the Laffer curve, meaning that boosting taxes would result in more revenue<sup>32</sup>. Except for Sweden, no significant OECD countries could generate income by lowering the marginal tax rate, according to a 2005 research<sup>33</sup>.

### **2.2.3 Benefit Received Theory of Taxation**

The benefit principle is a concept in the theory of taxation from public finance. It bases taxes to be paid for public-goods expenditures on a politically-revealed willingness to pay for benefits received. The principle is sometimes likened to the function of prices in allocating private goods<sup>34</sup>. In its use for assessing the efficiency of taxes and appraising fiscal policy, the benefit approach was initially developed by Knut Wicksell and Erik Lindahl, two economists of the Stockholm School<sup>35</sup>. Wicksell's near-unanimity formulation of the principle was premised on a just income distribution. The approach was extended in the work of Paul Samuelson, Richard Musgrave and others<sup>36,37</sup>. It has also been applied to such subjects as tax progressivity, corporation taxes, and taxes on property or wealth<sup>38</sup>. The

unanimity-rule aspect of Wicksell's approach in linking taxes and expenditures is cited as a point of departure for the study of constitutional economics in the work of James Buchanan.

The benefits received principle of taxation presumes that citizens who have received advantages from the government (in the form of public goods and services) should pay for them. For example, those who use a certain road system should pay for maintaining those roads. This is one of the main ideas behind taxation: those public goods should be available for citizens, and that citizens will provide taxes and other forms of payment that will make them possible. This theory assumes that there is basically an exchange relationship between taxpayers and the state. The state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefits received as stated by<sup>39</sup>.

The Benefits Received Principle, which is a theory of income tax fairness that says people should pay taxes based on the benefits they receive from the government<sup>40</sup>. A tax provision that says a donor who receives a tangible benefit from making a charitable contribution must subtract the value of that benefit from the amount claimed as an income tax deduction<sup>41</sup>. The Benefits Received Rule is thought to be appealing for its apparent fairness in that those who benefit from a service should be the ones who pay for it. However, this is not how the tax system works in the United States. The U.S. tax system is a “progressive” or “ability-to-pay” system, meaning that those who make more money tend to pay taxes at a higher rate and those who make less money tend to pay taxes at a lower rate or even receive taxpayer-funded benefits while paying no taxes at all<sup>42,43</sup>.

Under the first definition of the Benefits Received Principle, supporters believe that taxpayers that use certain services in disproportionate amounts should pay higher taxes on those goods or services than taxpayers who do not utilize them. For example, taxpayers who own or drive cars should pay more taxes that go towards road maintenance than taxpayers who do not own

or use cars. However, it is difficult to separate what goods and services are for the good and maintenance of the entire nation and not just an individual<sup>13</sup>.

The free-rider problem is the primary criticism given for limiting the scope of the benefit principle. When information about marginal benefits is available only from the individuals themselves, they tend to under report their valuation for a particular good, this gives rise to the preference revelation problem. Each individual can lower his tax cost by under reporting his benefits derived from the public good or service. One solution would be to implement tax choice. If taxpayers had to pay taxes anyway, but could choose where their taxes went (without the possibility of secret rebates or similar), then they would have no incentive to hide their true preferences.

#### **2.2.4 Convenience Theory**

This theory was propounded by Adam Smith, the capitalist patriarch. The theory states that tax is a compulsory levy which must be borne by all eligible to bear the burden. The theory however prescribes here that the taxpayer nonetheless should be helped to carry his cross without much sweat and grieve<sup>45</sup>. According to Adam Smith, “every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it”. The payment and manner of payment of taxable amount must be convenient to the person paying the same. If the tax collection mechanism is complex, it would lead to frustration and dissatisfaction to the contributor. A good taxation system is one, which is convenient to the contributor. Income tax is always collected on the preceding year of the assessment year. That means the tax is deducted only when the income is earned by the individual. If this would not be the case then the situation may arise, where the burden of paying the tax would be on the contributor, not having earned the income. Adam Smith in *The Wealth of Nations* (1776) wrote:

“Such things as defending the country and maintaining the institutions of good government are of general benefit to the public. Thus, it is reasonable that the population as a whole should contribute to the tax costs. It is also reasonable to demand certain other things of a tax system – for example, that the amounts of tax individuals pay should bear some relationship to their abilities to pay. Good taxes meet four major criteria. They are (1) proportionate to incomes or abilities to pay (2) certain rather than arbitrary (3) payable at times and in ways convenient to the taxpayers and (4) cheap to administer and collect”<sup>46</sup>.

Income tax authority cannot tax the amount which is not earned. It may create an absurd situation, where tax is deducted on the amount, not in existence. Apart from this, another important aspect is, after earning income, how the tax collection must be done so as to make it convenient. The best example of this is Tax Deducted at Source (TDS). TDS means “deduction of tax from the source it has been generated”. It is the obligation of the employer to deduct the tax before crediting the salary of the employee in his/her account and the tax so deducted shall be paid to the government, when due. This relieves the employee from paying the tax. Due to the rapid growth of technology, the internet has gained more popularity and is easily accessible nowadays. This gave rise to e-payment of direct taxes. Another example of the TDS scenario is where both individuals and corporate entities are permitted by law in Nigeria to deduct WHT at source as at when due which will serve as a relieve to the beneficiaries using the WHT deducted to defray his/her tax liability at the end of the tax year on preceding year basis. Thus, same also applies to VAT deduction at source where both MDAs and Oil & Gas companies are recognized by law to deduct at source from the invoice and remit same to the government on behalf of the beneficiaries.

### 2.2.5 Expediency Theory

This theory asserts that every tax proposal must pass the test of convenience. It must be the only consideration weighing the authorities in choosing a tax proposal. Economic and social objectives of the state as well as the effects of a tax system should be treated irrelevant<sup>47</sup>.

The expediency theory of taxation states that every tax revenue collection proposal must pass the test of practicability, which must be the only consideration when the county government is choosing a revenue collection proposal. Proposition is that the economic and social objectives of the government should be treated as irrelevant, since it is useless to have a tax which cannot be levied and collected efficiently. However, there would be pressures from economic, social and political groups. Every group tries to protect and promote its own interests and country government is often forced to reshape tax structure to accommodate these pressures<sup>48</sup>. In addition, the administrative set up may not be efficient to collect the tax at a reasonable cost of collection.

This theory proceeds on the assumption that there is basically an exchange relationship between tax-payers and the state. The state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefits received. Taxes should be allocated on the basis of benefits received from government expenditure. Taxation provides a powerful set of policy tools to the authorities and should be effectively used for remedying economic and social ills of the society such as income inequalities, regional disparities, unemployment, cyclical fluctuations and so on<sup>49</sup>.

The expediency is relevant in that, it seeks to explain influence of administrative set up, such as efficient e-payment system, in revenue collections by country governments.

However, as we can easily see, to build up an entire tax system solely on the considerations of expediency is also full of pitfalls. Taxation provides a powerful set of policy tools to the

authorities and should be effectively used for remedying economic and social ills of the society such as income inequalities, regional disparities, unemployment, and cyclical fluctuations and so on.

Practicability is an essential consideration in every tax proposal. If a tax cannot be collected, it is ridiculous to impose it. But given the set of different practicable taxes, and different practicability rates, a choice has to be made with reference to their possible effects on the working of the economy. By itself, this approach is not at all able to help the authorities in deciding as between different practicable taxes. And of course, those who are going to suffer by the imposition of a new tax or by a change in any existing tax are bound to advocate that the tax under consideration is not practicable.

#### **2.2.6 Cost of Service Theory**

This theory is sometimes similar to the benefits received theory. It lays emphasis on semi commercial relationship between the state and the citizens. The theory emphasizes that the state should give up basic amenities and welfare functions. This simply implies that the citizens are not entitled to any benefits if they however receive any benefits, then they must pay the cost of service thereof. This theory implies that the government should tax the citizens according to the cost of service rendered by it. The government renders certain services to citizens and the cost of such services should be collectively met by the citizens. The tax, an individual should bear, must be equal to the cost of benefit he receives.

This principle suggests that the cost incurred by the government in providing public goods to satisfy social wants should be regarded as the basis of taxation. Thus, tax is payable as per the cost of public goods enjoyed by the citizens. This means that the state is just like a producer of social goods and taxes are the prices for the same.

The criticisms of cost-of-service theory or taxation are as follows:

- a) It is not so easy to estimate the cost of government service or social goods made available to each individual tax payer. Finding out total cost of services rendered by the government is very difficult and therefore, the question of distribution of total cost among citizens is not practicable and not easy to solve.
- b) It is not in conformity with the definition of tax. A tax is not a price. Tax has no quid pro quo.
- c) If there is presumption that the total cost of services can be determined, the next difficulty is how to divide the cost of the services among individuals.
- d) It goes against the norms of welfare. If cost is the base for taxation, government cannot provide free education and medical care to the poorer section.
- e) If this theory is followed in the modern welfare state, the poorer will have to pay more taxes because they enjoy more benefits. Hence, it is opposite to the principle of justice.
- f) The cost of the services rendered depends very much on the efficiency of the administrator. If the administrator is efficient, the cost would be lower and if the administrator is inefficient, the cost of the benefit would be higher.

### **2.2.7 Resource Based Theory**

The resource-based theory is credited to have been largely developed in 1991 by Jay Barney who posited out that for organization to achieve between government revenue and government spending, they have to massively participate in the circle and also recommended that government expenditure should be reduced in the long run in order to boost government revenue. The study just like the earlier studies discussed examined the effect of revenue on expenditure while this study looks at the effect inversely.

## **2.3 Review of Empirical Studies**

### **2.3.1 Empirical Evidence from Nigeria**

Several studies have examined the effect of value added tax on government revenue generation and its spending in different countries with diverse techniques. The outcome of the investigations however, shows degree of relatedness in the results.

Some researchers opined that most economy relies on income from taxation for its development, and that in addition to its use as a means of raising government revenue, it is also, often used as an instrument of regulating the economy; redistribute wealth and inducing preferred modes of behavior, particularly consumption patterns and investment choices. Their empirical study revealed that revenue generated through VAT has a significant influence on wealth creation in Nigeria and on total revenue generated in Nigeria. In their recommendation, they pointed out that Federal Inland Revenue Service should pay attention to the informal sector of the economy by creating VAT offices at the Local communities so as to generate more revenue and to fully achieve the objectives of wealth creation through Value Added Tax<sup>109</sup>.

A study on the administration of VAT in Nigeria with the objective of seeking ways of improving government revenue generation base in order to improve the economy. The study recommended that the government should increase people's awareness on the existence VAT. Research carried out on the impact of fiscal policy on economic growth in Iran with emphasis on the role of value added tax. They found that value added taxes have significant effect on real output for Iran which means value added taxes as a fiscal policy tool have useful performance in Iran.

The relationship that exists between taxation and social development in Nigeria: tackling Kano's hidden economy, they found that taxpayers' attitude towards governance affects their

tax compliance behavior; they recommended a tax system that concentrate on establishing simplicity, predictability, and good governance.

Value Added Tax and Economic growth in Nigeria from 1994 to 2015 was examined. The econometrics methods of co-integration and ECM were employed as the main analytical techniques. The co-integration result revealed the existence of a long-run relationship among the variables. The Parsimonious Error Correction result revealed that Value Added Tax, exchange rate and interest rate have a significant relationship with economic growth in Nigeria during the period of study. While, private domestic investment has no significant relationship with economic growth in Nigeria during the studied period. Also, the coefficient of the parsimonious ECM has the appropriate sign that is negative and statistically significant. Meaning that, the short run dynamics adjust to long run equilibrium relationship. The study therefore concluded that VAT revenue impacted on economic growth in Nigeria positively during the period of study<sup>50</sup>.

The magnitude of the impact of value added tax on the Nigerian economy was determined. For this research, an Ex - Post Facto research design was used. During the study, Total Revenue (TR), Per Capital Income (PCI), and Gross Domestic Product (GDP) were utilized to measure the Nigerian economy from 2003 to 2015. Data on Value Added Tax, Gross Domestic Product, Per Capital Income, and Total Revenue were obtained using secondary data methods. These facts came from journals, the Federal Inland Revenue Service, the CBN statistics bulletin, and the federal ministry of finance. The statistics were acquired and simple regression analysis was used to examine them. Results indicate that Value Added Tax has not had a substantial impact on Nigeria's GDP. A negative correlation between VAT and per capital income was also seen. Lastly, we discovered that the Federal Government of Nigeria's overall generating revenue and VAT had a positive association. These data suggest that, despite the favorable impact of VAT on revenue, the Nigerian economy would grow slowly<sup>51</sup>.

The effect of VAT on the marketplace of Nigeria since inception to determine the age of to determine the necessity of its revision was evaluated. The paper used an ex-post-factor, descriptive, and analytical research technique. Data on VAT and GDP were collected between 1994 and 2015, and their historical connection was examined. It was shown that VAT and GDP are positively correlated. According to the model's coefficient, a 1% rise in VAT will result in an increase in GDP of 0.88%. This demonstrates a wholly favorable relationship among VAT and GDP. Consequently, a VAT reform is necessary now more than ever. Finally, a comprehensive rate revision for VAT is necessary, together with a precise description of the products and services that are excluded<sup>52</sup>.

The impact of VAT on the level of economic activities in Nigeria from its inception to 2014 was examined. The study uses secondary data which was analyzed using Johansen (1988) co-integration test. The quarterly data ranges from 1994 Q4 to 2014 Q4. The study found evidence of a significant positive impact of VAT on economic growth. In the same vein, other government revenues, which include all oil receipts and other receipts into the federation account other than VAT were also found to be positively related to economic growth during the study period<sup>53</sup>.

In order to evaluate the impact of VAT on government revenue generation and the influence of VAT on the financial standing of the Nigerian economy involving 1994 and 2014, the link amongst VAT, government total revenue, and GDP was examined was investigated. utilizing secondary data from the CBN statistics bulletin (2014), which was received from the Central Bank of Nigeria. The ordinary least squares (OLS) method was used in this investigation. Nevertheless, two distinct linear equations were approximated in an effort to determine the contributions of value added tax on government total income and the expansion of the Nigerian economy. The Phillips-Perron unit root test was used to determine the strength of the relationship between the Value Added Tax and Government Total Revenue; the

Correlation test was also used to determine the impact of the Value Added Tax on Economic Growth; and finally, the Descriptive Statistics test was used to determine the impact of the Value Added Tax on Economic Growth since the assessment takes the course of time into account. According to the analysis, Nigeria's Value Added Tax has a long-term, significant positive association with both the government's overall income and its Gross Domestic Product throughout the years under review<sup>54</sup>.

The effect of Value Added Tax and Customs and Excise Duties on Nigeria Economic Growth in Nigeria was empirically studied. The study covered the period of 2000-2015 and employed simple regression analysis and Pearson correlation techniques. Findings revealed that non-oil tax revenue affects Nigeria Gross Domestic Product in Nigeria pointing out that Value Added Tax and Customs and Excise Duties are some of the major contributors to Nigeria Gross Domestic Product<sup>55</sup>.

The impact of Value Added Tax on economic growth, particularly in emerging nations, was studied. Investigations of the impact of VAT on the economic growth in 19 developing nations from 1995 to 2010 were done in great detail. Because of the model's structure, the GMM panel was used to analyze the data. The impact of VAT on capital formation, productivity, and eventually economic development was then investigated via the lens of saving. The findings showed that VAT has a negative impact on capital accumulation growth at a level; its beneficial impact on economic development at a level appears to have been imposed through mechanisms other than increased saving and its impact on capital accumulation<sup>56</sup>.

The impact of the standard VAT rate on economic growth of five Central and Eastern European Countries (CEE-5), which include Bulgaria, Czech Republic, Hungary, Poland, and Romania was analyzed. The study made use of panel data models including random effect model, dynamic panel, panel vector-auto-regression, and data that spanned from 1995 to 2015.

The findings revealed that VAT rate had a significant positive impact on economic growth. The study further applied bilateral Granger causality and Bayesian linear models, and the result indicated that VAT rate had a positive influence on the GDP rate of Hungary only<sup>57</sup>.

The impact of direct and indirect taxes on economic growth of Romania from 2009 to 2017 was studied. The econometric model included direct taxes, indirect taxes, and GDP. The examination gave a result, which showed that positive changes implemented in the indirect tax structure had a strong positive influence on economic growth, while such variation in the direct tax structure negatively affected the economy in the immediately following fiscal year<sup>58</sup>.

The impact of VAT on economic growth in Nigeria from 2005 to 2014 was investigated. The study used data from CBN statistical bulletin. OLS method was used in the study. The outcome showed that VAT positively contributed to the overall government revenue leading to increase in economic growth of Nigeria<sup>59</sup>.

The impact of Value-Added Tax on corporate financial performance of quoted companies was examined. The population elements include the General Managers, Chief Accountants, Finance Managers, Chief Internal Auditors, External Auditors, and Tax Administrators of the selected companies. A total of forty (40) respondents were considered for this study. A well-structured questionnaire designed in five-point Likert Scale was administered on the respondents to elicit their responses. The data generated for this study were presented in tabular form and analyzed using frequencies and simple percentages while the stated hypotheses were statistically tested with the simple regression analysis and the t-test. Their findings indicated that Value Added Tax (VAT) impacted negatively on the financial performance of agribusinesses though the impact is of insignificant value<sup>60</sup>.

Nigerian state government taxes are being studied to see how it affects economic growth was investigated. To this end, it was anticipated that state government taxation in Nigeria had no discernible effect on economic expansion. A critical evaluation of pertinent literature was done in accordance with the foregoing. The Central Bank of Nigeria's (CBN) Statistical Bulletin provided the data for this study, which covered a 13-year period (1999–2012). The data were then subjected to multiple regression analysis. The results showed that state government taxes significantly influence Nigeria's economic expansion. On the basis of the aforementioned, it was advised that the state government take on the task of increasing its source of revenue by making sure that all potential sources of income are fully used as well as that tax administration and collecting methods develop more productive and profitable in Nigeria<sup>61</sup>.

The contribution of Value Added Tax (VAT) to Nigeria economy from 2000-2012 was evaluated. Data were collected from Central Bank of Nigeria (CBN) statistical bulletin and Federal Inland Revenue bulletin. Ordinary Least Square techniques were used to estimate the model, which revealed a strong positive significant relationship between Value Added Tax and Nigeria economy<sup>62</sup>.

The impact of Value Added Tax on the economic growth in Nigeria. Ordinary Least Square technique was employed to test the hypotheses formulated was examined. The finding of the study shows GDP has significant effect on VAT. Therefore, this hypothesis was not supported. Therefore, the study recommends that Nigerian economy should consider total tax revenue as the means of improving Nigeria economy since the result shows positive and significant relationship<sup>63</sup>.

The impact of Value-Added Tax on the economic growth in Nigeria was investigated. Data from the study were gathered from the Central Bank of Nigeria statistical bulletin, Nigeria Bureau of Statistics and Federal Inland Revenue Service for the year 1994 to 2014 these data

were analyzed using Johansen co-integration test. The findings from this test revealed that VAT has a positive and significant long-run relationship with GDP<sup>64</sup>.

The relationship between VAT and GNP in Nigeria used a data based on VAT revenue figure and GNP figure from 1994 to 2008 obtained from Central Bank of Nigeria statistical bulletin, GNP and VAT figure for that period of study were tested for correlation, the test revealed a strong Pearson's Product Moment Correlation (*PPMC*) at about 96 percent strength. Furthermore, a test of significance confirmed that VAT revenue is significantly different at 99 percent confidence level in relation to GNP. He concluded that there is a strong positive correlation between VAT revenue and GNP, again as regards to the test of significance level t-test confirmed that VAT is significantly different in relation to GNP in Nigeria<sup>14</sup>.

A study was carried out on Nigeria to seek a way of boosting capital expenditure to foster economic development through the use of tax revenue. Their study was quantitative in nature also using the *expos* facto research design over a time frame spanning from 2009 to 2018. It was discovered from their study that tax revenue does not impact the spending on capital expenditure. And it was recommended that utilization of tax revenue on public goods will encourage the payment of tax-by-tax payers. However, the effect of recurrent expenditure was not considered in their study also<sup>107</sup>.

An empirical evaluation of the contribution of VAT to the development of Lagos State economy. Development aspects considered included infrastructural development, environmental management, education sector development, youth and social development, agricultural sector development, health sector development and transportation sector development. The findings revealed that VAT revenue contributed positively to the development of the respective sectors. However, the positive contribution was statistically significant only in agricultural sector development.

An examination of the impact of value added tax on investment growth in Nigeria. Time series data on investment, government expenditure, real exchange rate, real interest rate and trade openness from the central bank of Nigeria statistical Bulletin (CBN) were analyzed, using multiple regression analysis. The results showed that Value Added Tax has significant effect on investment growth in Nigeria. The study recommends that there should be dedicated and honesty on the parts of all agents of VAT with respect to the collection, and government should try as much as possible to improve on the way of collecting value added tax<sup>108</sup>.

### **2.3.2 Empirical Evidence from Panel Studies**

The research done by a researcher was from three perspectives, conceptually and experimentally invigorating. Initially, the study alternatively of the conventional ratio of real tax revenue to GDP/GNP, adopts a combination of welfare function and the tax ratio model to provide an optimal tax ratio. In contrast to the more common cross-county data, it adopts the panel data analysis. Lastly, the paperwork involves parameters that demonstrate the possess of foreign grants, loans, and domestic obtaining in financial status in addition to the traditional domestic factors, such as per capita income, mining share in national income, and agricultural share in national income, to identify the impact of external environmental factors in a country's tax ratio<sup>65</sup>.

Due to several critiques of the tax ratio regression, the objective of the study was to develop the optimum tax ratio approach<sup>66</sup>. Historically, a country is considered to have poor tax effort if the ratio between actual tax collection and expected tax collection is less than one. A country is said to have an elevated tax rate if the ratio is more exceeds one effort<sup>67</sup>. The tax effort index regression methodology, nonetheless, is a technique for assessing relative tax capacity and effort and explaining the tax effort variation; it is not acceptable to use this to deduce the viability of the degree to which the real tax revenue by absolute value due to the absence of theoretical support justification<sup>68,69</sup>. Hence, the study took a strategy to give a

firmer theoretical foundation for the ideal tax rate by integrating the welfare function with the tax ratio model tax ratio<sup>70</sup>.

The data utilized in the tax ratio model was less persuasive, which is the other critique. The tax ratio models extensively utilized cross-sectional data limited explanatory power since it ignored the modifications that were place over time<sup>71</sup>. Consequently, the sample size in the study included eight African nations between the years 1973 and 1981, and the information from the panel analysis was applied<sup>72</sup>. The research's other major achievement is the breadth of its interpretative variable<sup>73</sup>. The per capita income, agricultural, mining, and international trade shares of GNP are all considered in the tax ratio model, which is in line with earlier empirical studies and the current research. To distinguish the impact of external financial environments, the study, unlike all other research, additionally includes the percentage of foreign grants, loans, and domestic borrowing in the share of GNP on the tax ratio<sup>74</sup>.

The results from the research found that when other indicators of economic progress were taken into account, there was a negative and substantial correlation between per capita income and the tax ratio in the model<sup>74</sup>. The study points the explanatory power of per capita income as a factor in the tax ratio model produces diverse results, either significant or different from prior research, which points out that as the per capita income as the proxy of the stage of development yields different results from nations that are less developed or not relevant<sup>75</sup>. The outcomes from the study further verified this conclusion<sup>76</sup>.

Furthermore, Both the agricultural and international trade shares of the GNP were strongly correlated with the tax ratio. The international trade share and the agriculture share of the GNP were inversely correlated. The bigger agriculture sector suggests a lower level of tax base, and the greater international commerce sector represents the broader tax base, therefore this result is consistent with prior tax ratio research tax handles<sup>77</sup>. The research project did not, however, discover a correlation amongst the mining portion of GNP and the tax ratio, in

contrast to earlier studies<sup>78</sup>. Also, it claimed that this may be because mining hadn't been a significant industry in the countries studied<sup>79</sup>.

Considering the regression's outcomes, the study constructed the using tax effort indices for eight African nations, it was discovered that two of the nations had statistically higher tax effort indices than one, while the other two had significantly lower tax effort indices<sup>80</sup>. The tax effort indexes for the other four nations were statistically equal to one. Nevertheless, the study emphasizes that there is no assurance that all factors influencing the tax ratio are taken into account, making it risky to draw conclusions about "good guys" and "bad guys" from such statistical data in the model<sup>81</sup>. The analysis's policy guidance is still highly useful, but only in light of other factors: If a nation has a high tax effort index, it means the nation, in comparison to other nations, finds it significantly harder to generate additional money through taxation for more government expenditure and vice versa<sup>82</sup>.

Finally, in the study, according to the author, more research ought to be done using a larger database and over a longer period of time, as well as taking into account a more superior theoretical model than the welfare function<sup>83</sup>. This suggestion has proved examined consideration in 1998<sup>84</sup>. The research on the performance of tax revenue among 39 countries in sub-Saharan Africa during the period presented its goal, taking into account the large fiscal deficits among sub-Saharan African countries in the 1990s and acknowledging that the tax ratio studies in earlier literature failed to pay attention to influences of economic policies and corruption on tax revenue of 1985 to 1996<sup>85</sup>. Additionally, by incorporating the value functioning, whose was created, it enhanced Leuthold's model by Heller<sup>86,87</sup>. As a result, it has strengthened the theoretical foundation and structured the form of Leuthold's intended tax ratio to be reduced, leading to the use of an imbalanced panel data analysis in the research.

The study's expansion of the explanatory factors is one of its key contributions. According to a scholar's article titled "The Impact of Macroeconomic Policies on the Level of Taxation and

the Fiscal Balance in Developing Countries," researchers should look beyond the conventional tax revenue determinants in order to provide a satisfactory explanation for the wide fluctuations of the tax ratios that the study follows arguments<sup>89,90</sup>. His study includes not only the conventional explanatory variables like per capita income, openness, and agricultural share of GDP, but also additional factors that concentrate on explanatory variables related to economic policy like inflation, percentage change in the real effective exchange rate, structural reforms, government provision of public services, and the level of corruption, which produced the intended outcomes<sup>91</sup>. By doing this, the study was capable to raise the topic of whether corrupt practices and economic policies may affect tax collections performance<sup>64</sup>.

Comprehensive information supporting the link between tax effectiveness and factors linked to policy was also provided by a scholar<sup>67</sup>. Theoretically, the national economy, taxation, and tax policy are all closely related. Economic factors and political variables were separated in the tax effort index research of 86 developing nations. The research incorporated elements from three areas of economic variables: the amount of national income, the sectoral mix of domestic output, and the transparency of the economy<sup>67</sup>. In his study, the national wealth level is proxied by the GDP per capita. The agriculture income shares in GDP and the mining income share in GDP were used to determine the domestic product's sectoral composition. Finally, the percentage of imports in the GDP was used to gauge how open the economy was. The study's primary goal was to identify any associations between tax revenue performance and the legitimacy, effectiveness, and credibility of the federal government. As explanatory variables in the function to represent government legitimacy, efficiency, and effectiveness, the author created the degree of resistance to the government, the democracy index, the frequency of coups, and the indicator of government trustworthiness and credibility<sup>67</sup>. The Gastil index of democracy was used to gauge the level of opposition to the government, the

index of inflation volatility (VOLA) was used as a stand-in for public trust in the government, and the sum of the average annual numbers of anti-government protests, general strikes, and riots was used to gauge democracy. People's attention has been called to the impact of government political capabilities by the regression finding.

The academic contends that although conceptually tax money and non-tax revenue are both sources of income for the government, they are fundamentally distinct. They might not differ significantly from one another empirically, nevertheless, in emerging nations. This is because public companies, which account for a sizable portion of non-tax revenue, were given important positioning and a distinct status in emerging nations than in rich nations. Developing nations have a significant presence of public companies. Due to their monopolistic status, public businesses frequently served as the sole provider of some specialized public goods and services. Therefore, the political parameters of taxes are comparable to the non-tax revenue in developing nations<sup>67</sup>.

A panel data tax effort index study for ten nations for the years 1992 to 2000 was set up by a researcher with a focus on the tax revenue performance in Central and Eastern European countries<sup>68</sup>. Only three variables totaled the study's model. The percentage of agricultural revenue in the GDP, which represented the level of advancement, came first. The second indicator of tax handles was the percentage of GDP's industrial sector income. In contrast to other research, the scholar classified the industrial sector as include both the mining and manufacturing sectors. The final factor was the degree of openness, which is determined by the GDP proportion of income from imports. In relation to the tax ratio, the agricultural revenue share in GDP was statistically significant and negative, supporting earlier research on the industry. Nevertheless, the GDP revenue from the industrial sector and the GDP income from imports were both adversely and statistically insignificantly correlated with the tax ratio. The author makes the case that this may be due to the extensive usage of tax incentives in

nations in Central and Eastern Europe. Last but not least, the author determined each country's tax effort index by dividing the actual tax collection by the predicted tax capacity. This calculation shows that the majority of Central and Eastern European nations witnessed a reduction in tax effort, which resulted in relatively low tax revenue performance. Poland, Romania, and the Slovak Republic were common examples<sup>68</sup>.

Using the tax effort index model, a study of the tax performance of several nations and factors influencing it was conducted by two researchers<sup>69</sup>. Their study's primary goal was to identify and examine numerous elements related to the performance of the tax system using relatively significant amounts of data. Between 1975 and 1998, 116 nations from around the world were included in the research. The four primary categories from which the study's variables were mostly chosen were the economy's openness level, population factor, population factor, external financial element, and the economy's stage of growth. 8 explanatory factors were therefore used in the research. These variables include per capita GDP, the percentage of international trade reflected in the ratio of total exports to GDP, the percentage of foreign aid to GDP, the percentage of external debt to GDP, population density, the percentage of agricultural sector income in GDP, the percentage of manufacturing income in GDP, and the shadow economy, which is measured by a shadow variable that indicates tax evasion—the first innovation in the literature. They then divided the 116 nations into four categories based on their stage of economic growth in recognition that various countries may indicate a varied link between tax performance and pertinent parameters. The four categories were: the low-income group, the higher middle-class group, the lower middle-class group, and the high-income OECD group.

With the exception of the agricultural share, which had a negative and significant sign, the openness level, which had a positive and significant sign, and the foreign debt, which had a negative and significant sign and was consistent with previous studies, the results of the other

variables in the study seem to support some alternative theories. This analysis disproved the idea that foreign aid crowds out other sources of funding since it appeared to be insignificant in all categories. Both the low-income group and the high-income group had significant levels of the shadow variable, which measures tax evasion, but curiously, the two groups' significant levels had opposite signs: the low-income group's was positive, while the high-income group's was negative. They contend that this may be the result of the shadow economy, which they claim encouraged tax cheating in low-income nations while increasing tax collections in other ones. Another comparable circumstance with the population density variable surfaced. It was discovered that, while the population density had a negative effect on the tax ratio in high-income nations, it had a positive effect in low-income countries and a negative effect on the tax ratio in upper-middle income countries. When the regression is repeated using interacting factors between GDP and manufacturing, the manufacturing share of GDP does not significantly differ from zero over the whole sample. The authors contend that this is caused by the various developmental phases of the various nations, as well as the divergent performance of specific factors, such as the manufacturing share. It may not be entirely acceptable to further describe this fact as "a one size fits all" approach<sup>69</sup>.

Three experts conducted cross-country statistical analyses on the drivers of tax revenue performance from both the traditional tax base and societal/political issues, with a focus on the tax revenue performance in Latin American nations<sup>70</sup>. As the authors point out, telling emerging nations with low tax revenue performance to "find oil" or "rearrange nature's bounty" would not be very helpful; a more practical remedy would be the enhancement of their governance structures institutions<sup>70</sup>. Following the study purpose, they split the explanatory variables into two categories: the demand side elements (societal institutions), which have received relatively less attention in prior tax effort studies, and the supply side components (conventional tax bases), which are generally recognized in the literature. On the

supply side, the authors took into account GDP per capita, population growth, openness level (calculated as the sum of all imports and exports divided by GDP), and the GDP percentage of non-agriculture income. Explanatory factors on the demand side were divided into seven categories. As follows:

1. The standard of governance index, which includes sub-indices for voice and account, political stability, rule of law, and corruption control, was calculated by averaging values from 100 variables across six governance dimensions.
2. The International Country Risk Guide (ICRG), a substitute for the quality of governance index that includes sub-indices for fraud, rule of law, bureaucratic quality, and ethnic strife.
3. The amounts of politicians and bureaucrats' efforts to obtain and distribute advantages is represented by the length of time and number of entry processes.
4. Taxation morale, a measure of the public's willingness to pay taxes;
5. The darkness economy, which gauges the unofficial sector and offers an out;
6. The disparity in income which depicts the wealth and income inequality in the distribution of households; and,
7. The degree of regionalization of the economy.

The study also involves a pair of measurements as the dependent variable: tax effort, measured as the ratio of actual tax collection to estimated tax capacity; and revenue effort, which was identified for the first time in the literature, measured as the ratio of actual current revenue collection to estimated current revenue capacity, where current revenue in the study was calculated as the sum of tax revenues and non-repayable receipts excluding grants. The justification for the revenue ratio is based on the usage of revenue classification and any potential errors therein, particularly in emerging and post-industrial nations. A stronger model test might be accomplished by integrating the current revenue analysis<sup>70</sup>.

The study's findings show that while if conventional tax handles continue to be important in the tax effort model, per capita GDP in both the tax and current revenue models was consistently negative in relation to the tax/current revenue ratio, though not necessarily significantly so<sup>70</sup>. Similarly, to per capita GDP, the population growth rate was consistently but not always significantly inversely correlated with the tax/current revenue ratio. The best explanatory power among all supply side components was the non-agricultural income portion of GDP, which showed to be positively and substantially connected to the tax/current revenue ratio. Both the tax ratio and the current revenue ratio were inversely correlated with the openness level, which occasionally seems to be statistically significant in the tax effort regression but not in the current revenue effort regression.

Two academics carried out an innovative and statistically sophisticated analysis of tax revenue efficiency. Initially taking into account the unique characteristics of each nation, this study uses the stochastic frontier panel data tax ratio analysis. Furthermore, with 113 nations, the sample size was enough. Interestingly, the study divided the entire sample into two groups based on each country's unique economic structure rather than the most popular method in the prior literature of categorizing nations based on their level of progression. 96 nations not dependent on natural resources made up the first category, and 17 nations whose economies were based on resources made up the second. Additionally, certain important social aspects were incorporated into the development of the explanatory variables. They contained the per capita GDP as a measure of development stage, the total of imports and exports as a percentage of GDP representing the degree of openness, and the proportion of income from the agricultural sector as a percentage of GDP to indicate the ease of tax collection. Along with these three supply-side variables, the authors also took into account the total public expenditure on education as a measure of educational attainment, the GINI coefficient, which measures the degree of income inequality, the Consumer Price Index (CPI),

which gauges inflation, and the Corruption Perception Index, which gauges government inefficiency<sup>71</sup>.

The findings for the nations not depending on natural resources are in line with earlier research, and they made some pretty significant advances to our understanding of the factors that affect the tax ratio. All variables, with the exception of the CPI, were found to be significant in the model, with the per capita GDP and education level showing positive signs and the agricultural sector showing negative ones. The key conclusion of this section of the study was that there was a strong negative relationship between the tax ratio and the GINI index and corruption. This demonstrated how important an impact institutional strength and economic disparity have on a nation's ability to collect taxes. The results from the 17 nations that rely on natural resources were broadly comparable to those from the 96 countries that don't; nonetheless, the CPI continued to be insignificant, and corruption seemed to have lost its impact<sup>71</sup>.

Examining the connection between effective governance and revenue performance from taxes by a scholar<sup>26</sup>. In addition to taking into account economic considerations, the study placed a strong emphasis on how governance quality affects tax capacity and effort. Evidence from earlier studies suggests that institutional elements are one of the aspects that determine how well revenue function. 55 developed and developing nations' data from the years 2002 to 2012 were used by the author. The institutional capability and corruption control in his study served as indicators of the effectiveness of government. The World Bank publishes the Worldwide Governance Indicators (WGI), which served as the source for both of the variables.

As a result, the tax ratio is described by six factors in the study's tax effort index model: institutional capacity, corruption control, the proportion of broad money in GDP, the ratio of total imports to total exports, and the urban population rate. The expert contends that

improved institutional capability and more corruption control often indicate an effective administration and the desire of the populace to pay taxes<sup>72</sup>. As a result, it was anticipated that the tax ratio would be favorably correlated with institutional ability and corruption control. The study further suggested that a higher rate of government spending also suggests a bigger demand for tax collection, consequently a positive correlation between the ratio of taxes to GDP and the percentage of government spending was anticipated<sup>25</sup>. Since accessibility has been a commonly used and studied variable, the positive sign was anticipated to be consistent with earlier research. It was anticipated that Huossain's model would provide a favorable result since the proportion of wide money, which was used to measure the amount of monetization, supposedly had a beneficial impact on the indirect taxes<sup>72</sup>. The author also contends that when urbanization increases, there is often an increase in the demand for public goods and services. Additionally, as urbanization increases, there is a decrease in the amount of agricultural activity in rural regions<sup>72</sup>.

The wide money in percentage of GDP was the sole non-significant variable in the research. All other factors had the anticipated indications and were statistically significant. Both the ability of the institutions and the suppression of corruption were statistically significant and favorable. The study's key conclusion indicated that, in both emerging and developed nations, the performance of tax revenue and the standard of governance are closely related. It follows that increasing the tax base and enhancing institutional variables are both effective ways to increase tax revenue performance<sup>72</sup>.

### **2.3.3 Empirical Evidence from Time Series Studies**

In relation to the financial strain on local governments, two academics undertook a tax effort study of tri-cities in the Commonwealth of Virginia, USA<sup>73</sup>. Findings related to the link between local government budgetary stress and tax revenue performance were a particular area of study. Seven explanatory variables are included in their model, including the fiscal

stress index (measured by the composite stress index which was calculated and published by the Joint Legislative Audit and Review Commission (JLARC) of the Commonwealth of Virginia), annual taxable retail sales (1000 dollars), family income (1000 dollars, median adjusted), state aid (total funds transferred from the state, 1000 dollars), unemployment rate, per capita welfare expenditure, and the com.

Most of the variables in the regression result from their model were significant, which was usually fruitful. The tax ratio and the fiscal stress index were strongly and favorably correlated, indicating that increased fiscal stress had a beneficial impact on local government's tax collection performance. The tax ratio was considerably and negatively correlated with the overall amount of funds transferred from the state. This result was comparable to the results of the international comparisons, which showed a similar link between the performance of the country's tax income and the importation of grain. However, the combined variable that combines the impacts of employment and welfare spending turned out to be statistically significant when the unemployment rate and per capita welfare expenditure were considered separately and highly significant. This discovery makes two significant points. First off, it demonstrates that one of the factors affecting the performance of tax income was the government's expenditure actions or behaviors. Second, as the author contends, broadening the tax base may not be the sole option to enhance the tax performance in local government. A lower unemployment rate and reduced welfare spending might also improve taxation efficiency<sup>73</sup>.

In Indonesia, a research was conducted to maximize local governments' tax income possibilities by a researcher<sup>74</sup>. The investigation concentrated on the tax capacity for provincial level government units in Indonesia before the decentralization, and he attempted to add to the explanation and solution of local government's poor revenue performance shortly after the decentralization, given that Indonesia had experienced a major fiscal

decentralization in 2001 and local governments were having serious concerns about the lack of revenue caused by the decentralization. Instead of looking at the variance in tax effort differences, the study created a tax frontier technique to look at the theoretical maximum tax capacity. Local tax and property tax were two specific tax types that the study found to be pertinent. Thus, the municipal tax ratio and the property tax ratio were created as two dependent variables. The labor force participation rate, agriculture portion of GDP, degree of openness (ratio of total imports and exports to GDP), and education level (number of high school students per capita) were all included as explanatory variables in the regression. Additionally, a number of dummy variables were incorporated, including those that represent regional disparities and various levels of relatively wealthy and impoverished regions<sup>74</sup>.

In the tax effort index model, the openness level was favorable and substantial for both the municipal tax ratio and the property tax ratio. This supported earlier international studies on the beneficial effects of accessibility levels in emerging nations. In regard to the local tax ratio, the agricultural component of GDP showed a decreasing trend but was statistically insignificant. However, the education level produced a pretty perplexing result. The examination of the property tax ratio revealed that the education level was no longer relevant in relation to the local tax ratio, and that the sign had unexpectedly become negative. The study's findings demonstrate that none of Indonesia's local governments have generated all of their potential tax revenue. The author also makes the point that, even if hypothetically, the decentralization process may result in a higher local tax effort owing to the need for funds, it would also bring a much larger local spending obligation. The author also highlighted certain significant aspects of government inefficiencies which may harm tax efforts, namely corruption. The research project, nevertheless, did not offer any actual proof<sup>74</sup>.

Three academics offered another fiscal change associated with the performance of the provincial tax income. The research was not just concerned with the local governments'

ability to levy taxes, but also with how fully they had exercised that ability. For the years 1986 to 2004, the authors conducted a panel data tax capacity and tax effort study at the province level in China. The 1980s and early 1990s budgetary changes were the primary focus of the study. Per capita GDP, agricultural proportion of GDP, industrial share of GDP, total foreign trade share of GDP, and population density are explanatory variables considered in the study<sup>75</sup>.

The researcher's tax effort index model revealed the considerable positive association between industry share and local tax capacity<sup>75</sup>. This outcome is consistent with China's budgetary framework, which was heavily reliant on the income from industrial sectors<sup>76</sup>. Though not substantial, the per capita GDP showed an upward trend. This outcome was in line with the literature's assertion that the per capita GDP function's significance in emerging nations was ambiguous. According to earlier tax ratio inter-country research, the agricultural sector and level of openness were considerably and adversely correlated with the tax ratio, whereas the openness level was strongly and positively correlated. Although a positive sign was found, the population density was not significant in the function. They discovered large spatial variations when analyzing the tax effort of various jurisdictions<sup>75</sup>. While the less established provinces had a significantly lower tax capacity but a greater tax effort, the comparably richer and coastal areas displayed a higher tax capacity but a lower tax effort. According to the authors, although the tax sharing system implemented as part of the 1994 fiscal reform had a major negative impact on local tax share of GDP, the decentralized fiscal reform, which began in the 1980s, had a beneficial influence on the revenue capacity of local government<sup>76</sup>.

Three academics recently conducted research on local provincial tax efforts in connection to China's fiscal decentralization<sup>77</sup>. Between 1996 and 2006, 31 provinces were included in the research. The authors used four distinct estimations of the prospective tax capacity, including

personal income (PI), gross regional product (GRP), total taxable resources (TTR), and the representative tax system utilizing regression analysis (RTS/R), in order to more effectively produce the tax effort indices. The ratio of actual tax collection to four distinct anticipated tax capabilities therefore represents the four alternative tax effort methodologies. Decentralization of fiscal level, the interaction term between the decentralization of finances and temporal trend (FD\*T), per capita GDP, the industrial share of GDP, and the overall trade share of GDP are the explanatory variables included in the equation<sup>77</sup>.

Similar to the other studies findings, another notable researcher found that while China's per capita GDP has a negative effect on tax effort, the industrial share and trade share of GDP have substantial positive effects on local tax efforts. However, this newer study indicates that the tax sharing system reform had played a significant positive role in the increase of the local governments' tax effort in all four different approaches of tax effort, which is in contrast to the conclusion of Wang et al. (2009) on the impact of the 1994 tax sharing system<sup>77</sup>.

Two researchers conducted a single nation framework tax revenue performance analysis utilizing a tax effort index model<sup>78</sup>. The researchers concentrated on Pakistan's low tax to GDP ratio, and the study employed a time-series analysis spanning the years 1973 and 2009. Three phases of regression were used by the author. The first regression solely took into account economic tax factors, such the contribution of industry and agriculture to the GDP and openness. Exchange rate, amount of revenue generation, and inflation rate were among the factors in the second regression that was introduced to the economic policy. External factors like external debt and overseas remittances were included in the third regression. The findings demonstrated an upward correlation between the tax ratio and the agricultural and manufacturing shares of GDP, but the agricultural share is not significant, and what's more, the service sector and per capita income in the first regression equation had a negative sign, which is unusual in most other studies. The final finding shows that traditional tax handles,

such as per capita GDP and GDP decomposition factors, have no significant influence on the tax ratio. Nevertheless, economic policy variables and external variables have a considerable impact on the tax ratio<sup>78</sup>.

A researcher used a regression method to examine the tax income in Turkey<sup>79</sup>. For the purpose to contribute to the research on Turkey's budget deficit issue, the author looked at the factors that affect tax income using a time series regression that covered the years 1970 to 2010. According to the findings, the GDP shares of the agricultural and industrial sectors, foreign debt, the pace of monetization, and the degree of urbanization all have a significant role in determining tax revenue in Turkey. Tax revenue and the GDP proportion of the agriculture sector were shown to be negatively correlated. Nevertheless, it has been discovered that there is no substantial correlation between Turkey's tax revenue performance and openness level, which is determined by the ratio of GDP to the sum of exports and imports<sup>79</sup>.

Using the tax effort index concept, two academics calculated the tax capacity and tax effort performance of 24 province level administrative entities in Taiwan from 2001 to 2010. The authors took into account factors including fiscal transfer, public spending, and, curiously, non-tax revenue in addition to the conventional demographic considerations and the breakdown of GDP. The findings showed that local governments in Taiwan had wide variations in their ability to collect taxes, and that local governments frequently made little effort to do so. Furthermore, it was shown that the amount of public spending per person, the proportion of local fiscal revenue that comes from sources other than taxes, and the degree of debt dependency all had a positive and substantial influence on the local tax effort. Election years, central grants, and centrally distributed tax income, however, had a detrimental effect on local tax initiatives<sup>80</sup>.

A study explores the causes and consequences of the spread of Value Added Tax (VAT). A panel study of 143 countries for 25 years were observed. The result shows that VAT has a significant but mixed impact. This implies that while some countries would have gained revenue from the adoption of VAT, others would not. Collectively, the adoption of VAT had a long run increase in overall revenue to GDP ratio of about 4.5 percent. However, allowing the impact of VAT to vary with country specifics will shift the effect to become negative though acting in the opposite direction are gains that tend to be greater in higher income and in more open economies<sup>81</sup>. A scholar investigated the relationship between Value Added Tax (VAT) and Gross Domestic Product (GDP) in Nigeria. The study finds that VAT is not effective as revenue earner; this implies that significant parts of GDP which represent aggregate national income as well as aggregate national expenditure are not collected as tax<sup>82</sup>. Three scholars analyze the revenue effect of the value added tax (VAT), in the SAARC region. Panel data of SAARC countries from 1995 to 2010 on various macroeconomic factors were obtained to determine the effect of VAT on revenue ratio. The results indicate prosperous set of determinants of VAT adoption as it proves to be a vital instrument to collect tax and enhance revenue ratio. The result shows that most of the SARRC countries that adopted value added tax have gained a more effective tax instrument to upgrade their GDP to revenue ratio<sup>83</sup>. In the same vein, three researchers examine the impact of value added tax in Pakistan's economy. Using household survey data to grasp the effect of value added tax on, social and economic life of the populace. Results show that VAT would disturb economic order of the society<sup>84</sup>. Two scholars studied the effect of increasing rate of VAT by targeting poverty and inequality. An empirical model based on consumer theory of demand was established to study the impact. Simulation results showed that increased rate of VAT would have negative significant impact on poverty<sup>85</sup>. Although the increased rate would have a negative impact on

overall consumption, yet its effect on poor is greater compared to the rich. A study looked at whether the ratio of government revenue to GDP rises steadily after implementation of VAT in 11 European countries. He concluded that the implementation of the VAT instantly increased tax ratio, which then continues growing at the higher level<sup>86</sup>.

Furthermore, three researchers attempt to analysis the contribution and performance of VAT in Bangladesh compared to other developing countries. The result shows that the performance of VAT was quite satisfactory in the initial years; afterwards, VAT collection remained stagnant at a certain level. The study finds that the stagnation happened as a result of: relatively small number of VAT tax-payers, a general lack of awareness, and a weak monitoring system<sup>87</sup>. A study examined the impact of implementing Value Added Tax on Export of goods and services in selected countries. Four different indices for export; export of goods and services, export of goods and services (BOP), export of goods and services (annual % growth), export of goods and services (% of GDP) to investigate the sensitivity to different definitions. Findings of the study, based on Mean Difference Statistical Test in two three-year periods before and after introduction of VAT show that, in different indices, the impact of VAT on export is positive<sup>89</sup>.

In Lithuanian, a study looked at the impact of VAT standard tariff, reduced tariffs and shadow economy on income from this tax. The Lithuanian VAT structure, the dynamics of income from this tax and amendments in the Law on Value Added Tax in terms of narrowing and widening the taxable base according to the theoretical analysis of the sources were analyzed using multiple regression, correlation, and optimization and C-effectiveness ratio analysis. The analysis revealed that, the amendments in the Law on Value Added Tax in terms of narrowing and widening the taxable base has influenced the amount of income from VAT collected to the budget<sup>90</sup>. Three scholars studied the contribution of VAT to GDP in Nigeria. Their findings show that VAT revenue to total tax revenue averaged 12.4% which

they considered low compared to other African countries such as Ivory Coast, Kenya and Senegal that had 30%. The study also observed a positive and significant correlation between VAT and GDP<sup>91</sup>. Two researchers studied the growth pattern of VAT in European Union (EU) countries to ascertain whether the implementation of VAT has led to an increase in the overall tax burden. Using Ordinary Least Square (OLS) and Seemingly Unrelated Regression (SUR). They found that VAT has often been disapproved as it is said to be a money machine for government and a regressive tax. The results however, show that VAT can be put into practice without becoming money machines for government. They submit that EU countries used VAT to substitute a number of indirect taxes and not to boost overall tax burden<sup>92</sup>.

The effect of value added tax on the economic growth of Nigeria was examined. The result shows that VAT contributes significantly to the total tax revenue of government and by extension the economic growth of Nigeria. The growth pattern of GDP from 1994 (the year of inception) to 2009 was oscillating. It increased geometrically between 2010 and 2011. VAT revenue growth had consistent increase though the growth was not as explosive as that of the GDP. To boost tax revenue, we need to boost revenue collected from VAT. This can be achieved not necessarily by increasing the VAT rate of 5% percent but by closing every VAT revenue leakage, sensitizing the managers of companies operating in Nigeria on the need to remit the VAT revenue collection and proper training of the Federal Inland Revenue staff in charge of VAT revenue collection<sup>93</sup>.

A study examined the revenue productivity implications of tax reforms in Tanzania. In the study, the tax buoyancy was estimated using double log form equation (2) and tax revenue elasticity using the proportional adjustment method (equation 4). The argument for the use of proportional method was that a series of discretionary changes had taken place during the sample period, 1979 to 1989, making the use of dummy variable technique impossible to apply<sup>94</sup>. For the study period, the overall elasticity was 0.76 with buoyancy of 1.06. The study

concluded that the tax reforms in Tanzania had failed to raise tax revenues. These results were attributed to the government granting numerous tax exemptions and poor tax administration.

The productivity of the Nigerian tax system for the period 1970-1990 was evaluated. The aim was to devise a reasonable accurate estimation of Nigeria's sustainable revenue profile. In the study, tax buoyancy and tax revenue elasticity were estimated using two equations. The slope dummy equations were used for the oil boom and SAPs. It was found that on the overall, productivity level was satisfactory. However, the results indicated wide variations in the level of tax revenue by tax source. The variations were attributed to the laxity in administration of non-oil tax sources during the oil boom periods. Significant reduction in public expenditure and prudent management of financial resources were suggested as solutions to the fiscal deficit. The research went on to state that the tax information system needed to be improved in order to improve performance evaluation and promote effective macroeconomic organization and implementation<sup>95</sup>.

A researcher evaluated impact of tax reforms on revenue collection in Malawi from 1970 to 1994. According to the findings, there was 0.95 buoyancy and 0.6 elasticity. The analysis found that the tax bases have expanded more slowly than the GDP. Ghana's tax reform and revenue productivity for the years 1970 to 1993 were also the subject of a study by the researcher. Results for the years 1970 to 1982 indicated a pre-reform buoyancy of 0.72 and an elasticity of 0.71. From 1983 to 1993, following reform, there was a rise in buoyancy of 1.29 and elasticity of 1.22. According to the study's findings, tax revenue productivity increased dramatically between 1983 and 1993 as a result of the reforms<sup>96</sup>.

Using the Index technique, the Zambian tax system's revenue productivity was examined from 1981 to 1999. The results indicated an elasticity of 1.15 and buoyancy of 2.0, confirming that tax reforms have increased the overall tax system's revenue productivity.

Nevertheless, since temporal trends were employed as substitutes for discretionary modifications, which was the study's main flaw, these conclusions were not trustworthy weakness<sup>97</sup>.

Estimated income elasticity of the tax code for Kenya from 1962/1963 to 1972/1973. Without accounting for atypical findings, tax revenue was regressed on income. The findings demonstrated that throughout the time period under study, the tax structure was income inelastic (0.81). According to the report, the system needs urgent modifications to increase efficiency. The findings also suggested that Kenya's tax system wasn't strong, consequently the nation would need aid from abroad to reduce the deficits in the budget<sup>98</sup>.

From 1972–1973 through 1990–1991 in Kenya, the revenue productivity of tax revisions was examined. After accounting for arbitrary adjustments, tax revenue was regressed on income. To make it simpler to examine the effects of tax reforms on the revenues from various taxes, the research period was split into two halves. For the years 1972 to 1981, it was discovered that the income elasticity of the overall tax system was 0.67. As a result, the government's tax receipts as a percentage of the growing GDP decreased. Sales tax was estimated to be 0.6, import duties to be 0.45, and income tax to be 0.93 elastic. The whole tax system's buoyancy for the same time period was 1.19, which suggests that it was fairly effervescent. According to the research, buoyancy was 1.00 and total elasticity was 0.86 for the years 1982 to 1991. According to the study's findings, the system did not achieve its income goals, necessitating continual revision as the economy's structure changed. Nevertheless, the study failed to consider the data's time series features, hence the conclusions could not be trusted<sup>99</sup>.

It was investigated how Kenya implemented value added tax (VAT) in 1990 to replace sales tax. The study examined the design, operation, and effectiveness of VAT. According to the computed buoyancy and elasticity coefficients, the response of VAT income to changes in GDP was not very strong. This implied that the administration of VAT lacked rigor and was

ineffective. However, the calculation of the buoyancy and elasticity coefficients was carried out without any consideration for the time series' characteristics or for any atypical observations in the data. As a result, the findings were unreliable for strategy<sup>100</sup>.

GDP was used to estimate the tax buoyancy and income-elasticity of Kenya's tax system. Tax revenues from various sources were regressed on their tax bases. Based on empirical evidence, the study concluded that the tax system had failed to raise necessary revenues. However, the shortcomings of the study were, first, it never considered other important determinants of tax revenues, for example, unusual circumstances that could have affected tax revenue productivity<sup>101</sup>. Second, it never disaggregated tax revenue data by source hence it was difficult to say which taxes and bases contributed more to the exchequer. Third, it never took into account the time series properties of the data<sup>102</sup>.

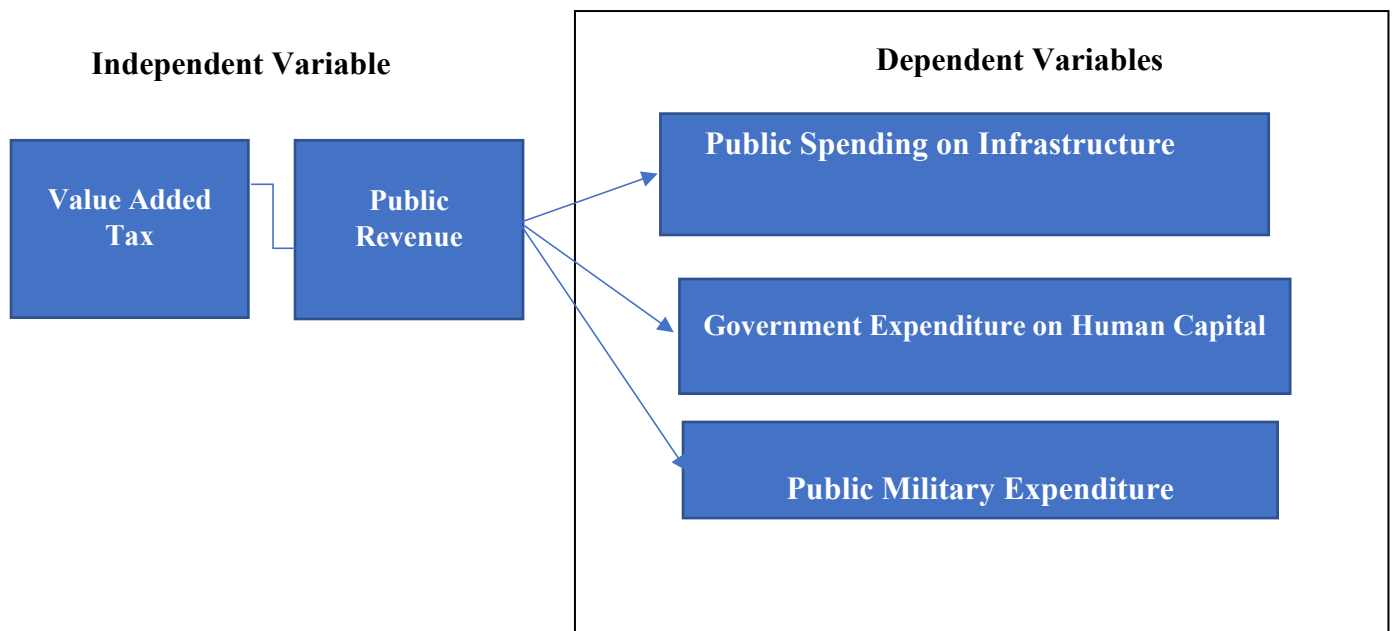
The theories of tax buoyancy and elasticity are used to evaluate the success of Kenya's tax reforms in making individual tax yields responsive to fluctuations in national income. To calculate the responsiveness of tax yields on income, they utilized equation 2. The findings demonstrated that tax changes had a favorable effect on both the general tax system and individual tax burdens. Notwithstanding the beneficial effects, the research found that the reforms had not succeeded in making the VAT responsive to changes in income. VAT, nevertheless, had only been in existence for around eleven years, thus it did not make statistical sense to put it to a regression model on its own<sup>103</sup>.

A researcher identifies the factors that affect Value Added Tax income and evaluates how yields respond to base modifications and amendments. To arrive at its key conclusions, the study relies on Paul Samuelson's general equilibrium analysis of the public sector from 1955. According to the estimation results, there may be a shadow economy since GDP elasticity is lower than elasticities with regard to monetary GDP. Additionally, it has been discovered that tax yields react to modifications in their sources far later than revenues do, and that revenues

are sensitive to reforms and exceptional events. The study comes to the conclusion that changes in its determinants, particularly global commerce, have a significant impact on Kenya's Value Added Tax collection. Making a solid Value Added Tax system is a difficulty<sup>103</sup>.

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## 2.4 Conceptual Model



**Figure 2.2:** Independent & Dependent Variable Model

**Source:** Researcher's Model (2022)

The Conceptual Model expresses the link between the independent variables (Value Added Tax & Public Revenue) and dependent variables (Public Spending, Government Expenditure & Public Military Expenditure). The revenue generation is quantified into total public revenue and key areas where government revenues are spent such as infrastructure, human capital development and security, food productions which all stand as sub-variables of the dependent variable.

## **2.5 Summary of Gap in Literature Reviewed**

The review of previous studies as entrenched under the Review of Empirical Studies above revealed that numerous works have been done by various authors on the impact of Value Added Tax on Public revenue and Government Spending in Nigeria. However, there seems to be an absence of work done on the increase of VAT rate from 5% to 7.5% as enshrined in the Finance Act 2020 and the handshake currently established between Value Added Tax and public revenue in Nigeria, as most of the research work covered from 1994 and 2018 and hence doesn't include the most recent data on this topic. More importantly, none of the previous studies focused on the various heads through which public revenue generation were captured under some sections of the Constitution of the Federal Republic of Nigeria as well as the warrants that authorized government spending be it Capital & Recurrent Expenditure. Finally, there is also the challenge of conflicting number of results as regards the effect of Value Added Tax on public revenue and government spending.

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## **Chapter Three**

### **Methodology**

The approach and processes that was used to conduct the research are discussed in this chapter. They include the research design, study population, sample size, sampling strategy, data gathering method, sources of data, data collection instruments, instrument validity and reliability, data analysis method, and data analysis instrument.

#### **3.1 Research Design**

Research design is defined as a method or process that shows a researcher way of answering research questions and achieving specified objectives. *Ex-post facto* research design is adopted for this study. Thus, a time-series data was used to investigate this study. This is a method of gathering data from veritable institutions both domestic and international. The data will be extracted from Federal Inland Revenue Service (FIRS), National Bureau of Statistics and Central Bank of Nigeria Statistical Bulletin.

#### **3.2 Population of the study**

The population of this study covers the entire Nigeria populace relating to Value Added Tax generated from production as well as the total revenue within the period of 1994 and 2021 as published by Federal Inland Revenue Service (FIRS), National Bureau of Statistics and Central Bank of Nigeria. In summary, the study is designed to gather operational data on Value Added Tax and revenue mobilization in the Nigerian economy as well as those determined its Value Added tax and Tax revenue generation in the twenty-seven-year periods (1994–2021).

#### **3.3 Sample Size and Sampling Technique**

In the sample selection, a non-probabilistic sampling technique of purposive sampling was used in this study. In the case of the purposive sampling, the researcher picks the sample that

will deliver the best information in order to satisfy the research objectives in question or with a purpose in mind.

The sample size for this study was selected from the population based on the information gathered from Federal Inland Revenue Service (FIRS), National Bureau of Statistics and Central Bank of Nigeria for the period under study (1994-2021).

### **3.4 Description of the Research Instruments**

For the purpose of this study, the following variables were identified;

#### **The outcome variables**

##### **i. Public Revenue**

The variable is measured by the total revenue raised through taxation with the aim of offering a country valuable service to the citizens, development, encouraging innovations and trade. In developing countries like Nigeria, enhancing the mobilization of tax revenue is integral for governments to create fiscal space to fund public investment and deliver public services. Also, the key areas where government mobilizes revenue considered are revenue generated towards ensuring adequate infrastructure, human capital development and security.

#### **The explanatory variables**

##### **i. Value Added Tax (main independent variable)**

VAT is a consumption tax paid on all goods and services provided in or imported into Nigeria. The variable measures government levy on the price of a product or service at each stage of production, distribution, or sale to the end consumer. It is a consumption tax that is assessed on products at each stage of the production. This is measured in Naira billion.

## ii **Capital Investment**

The variable is measured by gross fixed capital formation in billions of Naira. It is the total amount of fund used in the acquisition of produced assets (including purchases of second-hand assets), as well as the production of such assets by producers for their own use, minus disposals. Thus, it simply means the total outlays on additions to fixed assets, plus the net change in inventories.

## iii **Labour Force**

It comprises all persons who fulfill the requirements for inclusion among the employed (civilian employment plus the armed forces) or the unemployed within the ages of 15 and 64 years. The employed are defined as those who work for pay or profit for at least one hour a week, or who have a job but are temporarily not at work due to illness, leave or industrial action.

## iv **Credit to Private Sector**

Bank credit in Nigeria and other countries is measured as the credit extended by the banking institutions to the private sector only; both firms and households. It does not include lending to the government.

## v **Foreign Direct Investment**

Foreign direct investment (FDI) stocks measure the total level of direct investment at a given point in time, usually the end of a quarter or of a year. The outwards FDI stock is the value of the resident investors' equity in and net loans to enterprises in foreign economies. The inward FDI stock is the value of foreign investors' equity in and net loans to enterprises resident in the reporting economy. FDI Stocks are measured in USD and as a share of GDP. FDI creates stable and long-lasting links between economies.

The variable is used as a moderating variable.

#### vi **Real Gross Domestic Product (RGDP)**

The real GDP is the GDP that inflation has been adjusted as sourced from the CBN bulletin. Gross domestic product is regarded as all the goods and services produced in country in a year. It is concerned with domestic production and does not include net income from abroad. GDP was chosen because been an indicator of growth we could use. GDP equals; the total incomes of everyone in the economy, and the total expenditure on the economy's output of goods and services. It is a gauge of economic performance because it measures something, that people care about their incomes, similarly, an economy with a large output of goods and services can better satisfy the demands of the households, firms and the government. It is the net income from abroad is added to gross domestic income to get gross national product.

### 3.5 **Model Specification**

Following the theoretical model developed in chapter two and the empirical works of previous studies<sup>1,2,3,4,5</sup>, the adapted and modified model indicating the relationship between value added tax and revenue generation is specified in Equation (3.1). While incorporating key control variables such as capital, labor, domestic credit to private sector, real gross domestic product and foreign direct investment, the empirical model is specified as:

$$REM_t = \alpha_0 + \alpha_1 VAT_t + \alpha_2 CAP_t + \alpha_3 LAB_t + \alpha_4 CPS_t + \alpha_5 GDP_t + \alpha_6 FDI_t + \mu_t \quad (3.1)$$

Where: *REM* is a row vector revenue mobilization variables measured by total public revenue, public infrastructure spending, government expenses on human capital development, and public military expenditure; *CAP* is capital investment measured by gross fixed capital formation; *LAB* is labor force; *VAT* is total value added tax; *CPS* is domestic credit to private

sector;  $FDI$  is foreign direct investment;  $\alpha_0, \alpha_{1-6}$  are parameters;  $t$  is time;  $\mu$  is stochastic term.

From the model developed for the study, a change in the level of revenue mobilization depends on the total sum of value added tax generated in the country. Hence, the independent variables and the moderating variables are positive determinants of dependent variables. Therefore, there supposed to be a positive relationship among the independent variables, moderating variables and the dependent variable. It means that income, domestic credit to private sector, labour, capital, and foreign direct investment will boost revenue mobilization.

### **3.6 Reliability**

Data reliability alongside validity are two crucial determinants of a credible of research work. The main issue of reliability in the context of this research will arise when information is obtained from an undependable or untrustworthy source<sup>1</sup>. To control the incidence of unreliability of data, the data used in this analysis were obtained from the Central Bank of Nigeria (CBN), the Federal Inland Revenue Service (FIRS). Both organizations are the primary institutions that generate the data required for the research.

### **3.7 Validity**

Where research is conducted at a national or regional level, secondary data are the most appropriate sources. Threats to validity in the context of this research would include the soundness of the specifications of the models and the methods, as well as the nature of the data used in the analysis. These problems can be solved to some extent by undertaking diagnostic tests, as outline later in this chapter, and to verify that the suitable models and methods are chosen to suit the nature of the data and to avoid potential threats to the validity of the research findings.

### **3.8 Method of Data Analysis**

Descriptive and inferential statistics were used in this study to analyze the data. The descriptive analysis is performed to reveal and report the striking features of the variables used in the analysis. Descriptive statistics used are graphs to show the trend of the value added tax and revenue mobilization. Tables are also used to present results of analysis. The inferential statistics utilized in this study is the time series regression analysis. The use of time series variables informed the use of inferential tests to examine their properties so as to avoid spurious regression, which is modelling the relationship among non-stationary variables that is variables that has unit root. Therefore, all variables are examined through the unit root tests, and with a difference in the order of integration among variables. Inferential statistics that were used in regression analysis method to evaluate the extent of relationship between Value Added Tax and revenue mobilization. Furthermore, a co-integration test and Autoregressive Distributed Lag (ARDL) of long run relationship was used to estimate nature of relationship between Value Added Tax and revenue mobilization in Nigeria.

### **3.8.1 Unit Root Test**

The unit roots test is basically required to ascertain the number of times a variable/series has to be differenced to achieve stationarity. From this comes the definition of integration: A variable  $Y$ , is said to be integrated of order  $d$ ,  $I(d)$  if it attained stationarity after differencing  $d$  times<sup>6</sup>. A non-stationary time series is a stochastic process with unit roots or structural breaks. However, unit roots are major sources of non-stationarity. The presence of a unit root implies that a time series under consideration is non-stationary while the absence of it entails that a time series is stationary. In a bid to obtain this vital information of stationarity of series, the unit root test is used.

A series is said to be stationary if its mean and variance are constant over time and the value of the covariance between the two time periods depends only on the distance or gap or lag between the two time periods and not the actual time at which the covariance is computed.

Therefore, it is essential that a time series be stationary so that it can be of practical value for long run study and examination. On the other hand, when a time series is non-stationary, it can only be examined within the period under consideration. This is because the time series data will be restricted to just the period under study and it will be impossible to generalize for other time periods thereby defeating the purpose of forecasting. Differencing or Detrending helps to solve the problem of non-stationarity in time series.

There are various methods of testing unit roots. They include Augmented Dickey-Fuller (ADF) and Philip-Perron (PP) tests<sup>7,8</sup>. It is of the view that before pursuing formal tests to plot the time series under consideration, to determine the likely features of the series and; run the classical regression. If the series is trending upwards, it shows that the mean of the series has been changing with time. In the case of the classical regression, if Durbin– Watson statistics is very low and a high R-squared, this perhaps reveals that the series is not stationary<sup>9</sup>. This is the initial step for a more formal test of stationarity. The Augmented Dickey Fuller Test and Phillips-Perron unit root tests were used in this study. Two-unit root tests were conducted so that the sensitivity of conclusions made on time series can be tested and also validated

### **3.8.2 Autoregressive Distributed Lag (ADRL) Bounds Test Approach**

The idea of co-integration is that the linear combinations of two non-stationary series can be stationary. This implies the existence of a long run relationship between the variables. Thus, they can be modelled. In order to empirically analyze the short run dynamic interactions and the long run relationships among the variables of interest, the auto-regressive distributed lag (ARDL) bounds co-integration technique was used.

The co-integration techniques approach was developed by scholars<sup>10,11</sup>. Comparatively, the technique has three advantages over other previous and traditional co-integration methods.

Firstly, ARDL test is relatively more efficient in the case of small and finite sample data sizes. Secondly, the researcher advocated the use of the ARDL model for the estimation of level relationships because the model suggests that once the order of the ARDL has been recognized, the relationship can be estimated by OLS<sup>12</sup>. Lastly and most importantly, the bounds test allows a mixture of I (1) and I (0) variables as repressors, that is, it does not need that all the variables under study must be integrated of the same order and it can be applied when the under-lying variables are integrated of order one, order zero or fractionally integrated. Summarily, by applying the ARDL technique according to a study, unbiased estimate of the long-run model is obtained<sup>13</sup>.

Nonetheless, to apply the bounds test, it is important to ensure that the variables under consideration are not integrated at an order higher than one. In the presence of I (2) variables, the critical values provided by the estimator developer are no longer valid<sup>14</sup>. The ARDL model is then estimated in order to test the existence of long run relationship between VAT and revenue mobilization.

The structural lags are established by using minimum Akaike's information criteria (AIC). From the estimation of UECMs, the long-run elasticities are the coefficients of one lagged explanatory variable (multiplied by a negative sign) divided by the coefficient of one lagged dependent variable<sup>15</sup>. After estimating the ARDL models, the Wald test (F-statistic) was computed to differentiate the long-run relationship between the concerned variables. The Wald test can be carried out by imposing restrictions on the estimated long-run coefficients of the variables. The null and alternative hypotheses are as follows:

$$H_0 : \beta_1 = 0, \beta_2 = 0, \dots, \beta_n = 0 \text{ (no long-run relationship)}$$

Against the alternative hypothesis

$$H_0 : \beta_1 \neq 0, \beta_2 \neq 0, \dots, \beta_n \neq 0 \text{ (a long-run relationship exists)}$$

The computed F-statistic value will be evaluated with the critical values. The lower bound critical values assumed that the explanatory variables  $x_t$  are integrated of order zero, or I (0), while the upper bound critical values assumed that  $x_t$  are integrated of order one, or I(1). Therefore, if the computed F-statistic is smaller than the lower bound value, then the null hypothesis is not rejected and we conclude that there is no long-run relationship between the dependent variables and their determinants. Conversely, if the computed F-statistic is greater than the upper bound value, then variables share a long-run level relationship. On the other hand, if the computed F-statistic falls between the lower and upper bound values, then the results are inconclusive.

The Long-run model is given as:

$$REM_t = \alpha_0 + \alpha_1 VAT_t + \alpha_2 CAP_t + \alpha_3 LAB_t + \alpha_4 CPS_t + \alpha_5 GDP_t + \alpha_6 FDI_t + \mu_t \quad (3.1)$$

To distinguish the short-run impact from long-run impact, the error correction model framework is written as:

$$\begin{aligned} \Delta REM_t = & \alpha + \sum_{i=1}^{N1} \delta_i \Delta REM_{t-K} + \sum_{j=0}^{N2} \eta_j \Delta VAT_{t-K} + \sum_{j=0}^{N3} \beta_j \Delta CAP_t + \sum_{j=0}^{N4} \theta_j \Delta LAB_{t-k} + \sum_{j=0}^{N5} \gamma_j \Delta CPS_{t-K} \\ & + \sum_{j=0}^{N6} \theta_j \Delta GDP_{t-k} + \sum_{j=0}^{N7} \gamma_j \Delta FDI_{t-k} + \alpha_1 VAT_t + \alpha_2 CAP_t + \alpha_3 LAB_t + \alpha_4 CPS_t + \alpha_5 GDP_t + \alpha_6 FDI_t + \mu_t \end{aligned} \quad (3.2)$$

To determine the speed of adjustment in a co-integrating ARDL model, equation (3.2) can be re-specified to include an error correction term as follows:

$$\begin{aligned} \Delta REM_t = & \rho I_{t-1} + \sum_{i=1}^{N1} \delta_i \Delta REM_{t-K} + \sum_{j=0}^{N2} \eta_j \Delta VAT_{t-K} + \sum_{j=0}^{N3} \beta_j \Delta CAP_t + \sum_{j=0}^{N4} \theta_j \Delta LAB_{t-k} + \sum_{j=0}^{N5} \gamma_j \Delta CPS_{t-K} \\ & + \sum_{j=0}^{N6} \theta_j \Delta GDP_{t-k} + \sum_{j=0}^{N7} \gamma_j \Delta FDI_{t-k} + \mu_t \end{aligned} \quad (3.3)$$

Where:

*REM* = Row Vector Revenue Mobilization variables measured by total public revenue, public infrastructure spending, government expenses on human capital development, and public military expenditure; *CAP* = Capital Investment measured by gross fixed capital formation; *LAB* = Labor force; *VAT* = Total Value Added Tax; *CPS* = Domestic Credit to private sector; *FDI* = Foreign Direct Investment.  $\delta$ ,  $\eta$ ,  $\beta$ ,  $\theta$  and  $\gamma$  are the short-run coefficients and  $\alpha_1 - \alpha_6$  are long-run parameters for the explanatory variables;  $p$  is the coefficient of the error correction term which must be negative,  $t$  represents the periods under study;  $\mu$  are the error term.

## Endnotes

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## Chapter Four

### Results and Discussion of Findings

#### Preamble

This chapter contains data presentation, analysis and interpretation of results.

In this chapter, descriptive and inferential statistics were used in this study to analyze the data.

The inferential statistics utilized in this study is the time series regression analysis which comprised of correlation matrix, Variance Inflation Factor (VIF), Test of Hypotheses for the research questions, Auto-regression Distribution Lag (ADRL), Augmented Dickey-Fuller (ADF) and Philip-Perron (PP) test and Unit Root Test were all used to analysis with the use of secondary data that used E-view because it is a panel data which consist time series data and cross section data.

#### 4.1 Presentation of Data

**Table 4.1.1: Data on the four hypotheses' GDP, Total Tax Revenues, and VAT**

| Year(s) | VAT (₦' Million) | GDP (₦' Million) | % Growth in VAT | Total Tax Revenue |
|---------|------------------|------------------|-----------------|-------------------|
| 1994    | 7,261            | 1,399,702        | -               | 949,187.90        |
| 1995    | 20,761           | 2,907,358        | 186%            | 1,906,159.70      |
| 1996    | 31,000           | 4,032,300        | 49%             | 2,231,532.90      |
| 1997    | 34,000           | 4,189,250        | 10%             | 1,731,800.00      |
| 1998    | 36,000           | 3,989,450        | 6%              | 2,575,100.00      |
| 1999    | 47,100           | 4,679,212        | 31%             | 3,920,500.00      |
| 2000    | 57,500           | 6,713,575        | 22%             | 5,347,500.00      |
| 2001    | 91,800           | 6,895,198        | 60%             | 6,069,800.00      |
| 2002    | 108,600          | 7,795,758        | 18%             | 5,727,500.00      |
| 2003    | 136,400          | 9,913,518        | 26%             | 7,866,600.00      |
| 2004    | 159,500          | 11,411,067       | 17%             | 4,844,600.00      |
| 2005    | 178,100          | 14,610,882       | 12%             | 7,303,700.00      |
| 2006    | 221,600          | 18,564,595       | 24%             | 4,628,500.00      |
| 2007    | 289,600          | 20,657,318       | 31%             | 9,007,700.00      |

|      |           |             |     |              |
|------|-----------|-------------|-----|--------------|
| 2008 | 401,700   | 24,296,329  | 39% | 1,805,600.00 |
| 2009 | 481,400   | 24,794,239  | 20% | 8,866,600.00 |
| 2010 | 564,890   | 54,612,264  | 17% | 6,844,600.00 |
| 2011 | 659,154   | 62,980,397  | 17% | 3,303,700.00 |
| 2012 | 710,555   | 71,713,935  | 8%  | 5,628,500.00 |
| 2013 | 802,684   | 80,092,563  | 13% | 3,007,700.00 |
| 2014 | 802,965   | 89,043,615  | 0%  | 4,605,600.00 |
| 2015 | 767,330   | 93,426,656  | -4% | 7,466,600.00 |
| 2016 | 828,200   | 108,916,911 | 8%  | 4,944,600.00 |
| 2017 | 972,350   | 114,834,459 | 17% | 7,503,700.00 |
| 2018 | 1,108,140 | 121,674,276 | 14% | 4,728,500.00 |
| 2019 | 1,188,580 | 144,210,492 | 7%  | 5,207,700.00 |
| 2020 | 1,536,834 | 152,324,071 | 29% | 4,605,600.00 |
| 2021 | 2,072,850 | 175,500,000 | 35% | 5,866,600.00 |

**Source:** CBN Statistical Bulletin; Federal Inland Revenue Service, World Bank and National Bureau of Statistics Report 2021.

**Table 4.1.2: Estimates of Regression using the Ordinary Least Square (OLS) method**

| <b>Dependent Variables</b>            | <b>REM</b>      |
|---------------------------------------|-----------------|
| <b>VAT (Value Added Tax)</b>          | 0.551***(0.008) |
| <b>CAP (Capital Investment)</b>       | 0.941 (0.03)    |
| <b>LAB (Labour Force)</b>             | 0.615 (0.005)   |
| <b>CPS (Credit to Private Sector)</b> | 0.657 (0.036)   |
| <b>GDP (Gross Domestic Product)</b>   | 0.55 (0.035)    |

|                                        |                 |
|----------------------------------------|-----------------|
| <b>FDI (Foreign Direct Investment)</b> | 0.673 (0.001)   |
| <b>C (Regression Coefficient)</b>      | 0.787***(0.000) |
| <b>R<sup>2</sup> (Reg. Coeff. Sq)</b>  | 0.621790        |
| <b>Adjusted R<sup>2</sup></b>          | 0.558755        |

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**Source: Researchers' E-View 9 result, 2022**

$$REM_t = 0.787 + 0.541VAT_t + 0.941CAP_t + 0.615LAB_t + 0.657CPS_t + 0.55GDP_t + 0.673FDI_t + \varepsilon_t$$

The Ordinary Least Square (OLS) estimates, as well as significant statistics like R<sup>2</sup> and adjusted R<sup>2</sup>, are included in the regression findings. The variance in Revenue Mobilization as a result of the six dependent variables was shown by the coefficient of determination (R squared) of 62 % (Value Added Tax, Capital Investment, Labour Force, Credit to Private Sector, Gross Domestic Product, Foreign Direct Investment) the remaining 38% of the variables were left out of the research. The findings revealed that there is a positive relationship between Value Added Tax, Public Revenue and Government Expenditure in Nigeria. At a 5 % level, Value Added Tax invariably have a beneficial influence on Revenue Mobilization in Nigeria. Furthermore, the significant coefficient is 0.541, implying that a 1% increase in Value Added Tax will result in a 54% increase in Revenue Mobilization over time, but at a lower proportion. As a result, the more Value Added Tax, the more likely there is to be Revenue Mobilization; this was backed by a p-value of 0.008<0.05 level of significance.

Furthermore, the findings revealed a positive relationship between Capital Investment& Revenue Mobilization in Nigeria, with a regression coefficient of 0.941, indicating that Capital Investment is more closely linked to Revenue Mobilization. The significance of Capital Investment& Revenue Mobilization in Nigeria, is also confirmed by the p-value of

$0.03 < 0.05$ . The conclusion is that a 1% increase in Capital Investment & Revenue Mobilization in Nigeria, leads to a 94% increase in Government Revenue in Nigeria.

Similarly, data revealed a positive correlation between field Labour Force and Revenue Mobilization in Nigeria, with a regression coefficient of 0.615, indicating that Labour Force is less related to Revenue Mobilization in Nigeria compare with Capital Investment. The significance of Labour Force is also confirmed by the p-value of  $0.005 < 0.05$ . The implication is that a 1% increase in Labour Force leads to a 62 percent increase in Revenue Mobilization in Nigeria. Implementing a long-term Labour Force regime capable of increasing Revenue Mobilization in Nigeria.

And also, data revealed a positive correlation between Credit to Private Sector and Revenue Mobilization in Nigeria, with a regression coefficient of 0.657. The significance of Labour Force is also confirmed by the p-value of  $0.0036 < 0.05$ . The implication is that a 1% increase in Credit to Private Sector leads to a 65 percent increase in Revenue Mobilization in Nigeria. Implementing a good Credit to Private Sector is capable of increasing Revenue Mobilization in Nigeria.

More so, data revealed a positive correlation between Gross Domestic Product and Revenue Mobilization in Nigeria, with a regression coefficient of 0.55. The significance of Gross Domestic Product is also confirmed by the p-value of  $0.035 < 0.05$ . The implication is that a 1% increase in Gross Domestic Product leads to a 55 percent increase in Revenue Mobilization in Nigeria. Implementing import and export operation is capable of increasing our good and service through Revenue Mobilization in Nigeria.

In addition, data revealed a positive correlation between Foreign Direct Investment and Revenue Mobilization in Nigeria, with a regression coefficient of 0.673. The significance of Foreign Direct Investment is also confirmed by the p-value of  $0.001 < 0.05$ . The implication

is that a 1% increase in Foreign Direct Investment leads to a 67% increase in Revenue Mobilization in Nigeria. Implementing Foreign Direct Investment operation is capable of increasing services through Revenue Mobilization in Nigeria.

**Table 4.1.3: Correlation Matrix**

|            | VAT            | CAP            | LAB            | CPS            | FDI            | GDP |
|------------|----------------|----------------|----------------|----------------|----------------|-----|
| <b>VAT</b> |                |                |                |                |                |     |
| <b>CAP</b> | 0.910<br>0.000 | 1              |                |                |                |     |
| <b>LAB</b> | 0.970<br>0.000 | 0.904<br>0.000 | 1              |                |                |     |
| <b>CPS</b> | 0.989<br>0.000 | 0.930<br>0.000 | 0.975<br>0.000 | 1              |                |     |
| <b>FDI</b> | 0.989<br>0.000 | 0.918<br>0.000 | 0.963<br>0.000 | 0.997<br>0.000 | 1              |     |
| <b>GDP</b> | 0.973<br>0.000 | 0.999<br>0.000 | 0.951<br>0.000 | 0.979<br>0.000 | 0.974<br>0.000 | 1   |

**Source:** E-views 9 output p-values are parenthesized as built.

Table 4.1.3 shows that the variables are highly linked, necessitating discussion of multicollinearity in the research. Even at a strict 1%, the correlation coefficients are fairly high and significant.

**Table 4.1.4: Var. Inflation Factor (VIF)**

| Var. Inflation Factor | Coefficients    | Uncentered | Centered   |
|-----------------------|-----------------|------------|------------|
| <b>Variable</b>       | <b>Variance</b> | <b>VIF</b> | <b>VIF</b> |
| C                     | 1.90E+12        | 2.66       | NA         |
| VAT                   | 43.12671        | 15.06      | 6.72       |
| TTR                   | 0.018485        | 10.78      | 6.72       |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

According to the findings in Table 4.1.4, the variance inflation factor (VIF) for VAT and TTR is 15.08 and 10.78, correspondingly, above the threshold of 10 and indicating the issue of multicollinearity, which was taken into account in the present investigation.

**Table 4.1.5: Unit Root Test, A Stationarity Test**

|     | LEVEL              |                   | FIRST DIFFERENCE   |                   |            |
|-----|--------------------|-------------------|--------------------|-------------------|------------|
| VAR | ADF Test Statistic | PP Test Statistic | ADF Test Statistic | PP Test Statistic | ADF/PP CV  |
| VAT | 0.743717           | 1.249464          | -3.455036          | -5.30787          | 0.59522883 |
| GDP | 1.071143           | 0.974357          | -3.697945          | -3.83426          | 1.0993332  |
| TTR | 0.794698           | 0.996435          | -4.99552           | -9.27056          | 0.79754123 |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

The stationarity of the data was assessed using the unit root test, and the test's outcome is displayed in table 4.1.5. Table 4.1.5's conclusion demonstrates that the variables are integrated of order one at a 5% significance level. All of them have the same integration order. At the initial difference, it is discovered that they are immobile. The chance of the t-statistic being significant and the absolute value of the ADF and PP test statistics for the first difference being larger than 5% threshold of significance cause the null hypothesis of unit root to be rejected. It displays the results of the stationarity tests for Augmented Dickey-Fuller and Phillip Peron. The findings demonstrate that at levels, the ADF test statistic and the Phillip Peron test statistic have absolute values that are less than the crucial threshold of 5%, suggesting that the data are not stationary. However, the ADF and PP test statistics demonstrate that the variables are stationary at the first difference since their absolute values are bigger than the crucial threshold of 5%.

**Table 4.1.6: Test for Co-integration**

|                                                        |       |        |        |       |      |
|--------------------------------------------------------|-------|--------|--------|-------|------|
| Sample: 1996 to 2018 (adjusted)                        |       |        |        |       |      |
| After modifications, there were 23 observations total. |       |        |        |       |      |
| Trend supposition: Trend with linear determinism       |       |        |        |       |      |
| GDP VAT TTR Series                                     |       |        |        |       |      |
| None *                                                 | 0.796 | 54.012 | 29.797 | 0.000 | 0.05 |
| At most 1 *                                            | 0.449 | 17.498 | 15.495 | 0.025 |      |
| At most 2                                              | 0.152 | 3.793  | 3.841  | 0.052 |      |

|                                                                                                                                                                    |            |           |                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|----------------|---------|
| At the 0.05 level, the trace test shows two cointegrating equations (s). * At this level, the hypothesis is rejected. p-values from MacKinnon-Haug-Michelis (1999) |            |           |                |         |
| Lags interval: 1 to 1 (in the initial differences)                                                                                                                 |            |           |                |         |
| Unlimited Test of Cointegration and Rank (Trace)                                                                                                                   |            |           |                |         |
| Trace that is Speculated                                                                                                                                           |            |           |                |         |
| No. of CE(s)                                                                                                                                                       | Eigenvalue | Statistic | Critical Value | Prob.** |

**Source:** P-values are included in parentheses as compiled from E-views 9

Table 4.1.6 displays the outcome of the Johansen the Model for Correcting Errors to ascertain the co-integration test. The outcome shows short run and the long-run effect of two co-integrating equations are present. In explanatory variable on the dependent in virtue of the aforementioned outcome, we undertake variable.

**Table 4.1.7: Model for Vector Auto Regression (VAR)**

|                                                                                                        |            |           |                |         |
|--------------------------------------------------------------------------------------------------------|------------|-----------|----------------|---------|
| Sample: 1996 to 2018 (adjusted)                                                                        |            |           |                |         |
| Observations included: 20 after corrections                                                            |            |           |                |         |
| Trend supposition: deterministic linear trend series: TTR                                              |            |           |                |         |
| VAT                                                                                                    |            |           |                |         |
| (In initial differences) Lags interval: 1 to 1                                                         |            |           |                |         |
| The Trace test for unrestricted cointegration Hypothetical                                             |            |           |                |         |
| Trace                                                                                                  |            |           |                |         |
| 0.05                                                                                                   |            |           |                |         |
| No. of CE(s)                                                                                           | Eigenvalue | Statistic | Critical Value | Prob.** |
| None *                                                                                                 | 0.523145   | 23.57497  | 15.49471       | 0.0025  |
| At most 1 *                                                                                            | 0.354806   | 8.764094  | 3.841466       | 0.0031  |
| At the 0.05 level, the trace test shows two cointegrating equations (eqns).                            |            |           |                |         |
| * This means that the hypothesis is rejected at this level. MacKinnon-Haug-Michelis p-values from 1999 |            |           |                |         |

**Source:** The output p-values are included in parentheses as compiled from E-views 9.

Table 4.1.7 demonstrates that the variables for VAT and TTR are not co-integrated when the Trace statistic's result is compared to the crucial value of 5%. This implies that there isn't an equilibrium over the long term.

**Table 4.1.8: Frugality in the ECM Result**

| Dependent Variable: D(GDP)<br>Method: Least Squares |           |                   |          |          |
|-----------------------------------------------------|-----------|-------------------|----------|----------|
|                                                     | Coeff     | Std. Error        | t-Stat   | Prob.    |
| ECM(-1)                                             | -0.917795 | 0.207348          | -4.42635 | 0.0006   |
| D(GDP(-1))                                          | -0.02353  | 0.219187          | -0.10735 | 0.916    |
| D(GDP(-2))                                          | -0.071686 | 0.253321          | -0.28298 | 0.7813   |
| D(VAT(-1))                                          | -90.3622  | 38.41349          | -2.35236 | 0.0338   |
| D(VAT(-2))                                          | -48.60712 | 25.51615          | -1.90496 | 0.0775   |
| D(TTR(-1))                                          | 8376.222  | 3467.942          | 2.415329 | 0.03     |
| D(TTR(-2))                                          | 3530.839  | 3293.476          | 1.07207  | 0.3018   |
| C                                                   | 7536760   | 2163068           | 3.484291 | 0.0036   |
| R-squared                                           | 0.643395  | Mean dep var      |          | 4561191  |
| Adj R-squared                                       | 0.465092  | S.D. dep var      |          | 7392921  |
| Log-likelihood                                      | -367.3153 | Han-Quinn criter. |          | 34.21303 |
| F-statistic                                         | 3.60844   | Durbin-Watson     |          | 2.229538 |
| Prob(F-stat)                                        | 0.0196    |                   |          |          |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

The outcome of the prudent error correction model is shown in Table 4.1.8. The Durbin-Watson statistic and the coefficient of determination of 64% in the table showed that the model has a strong fit and that there is no autocorrelation. Since the related p-value for the F-statistic of 3.61, which is significant at a 5% level, is 0.02, the whole model is considered significant at this level. The Error Correction Model (ECM) is significant at a 1% level and has a negative coefficient. This indicates that after two years, 64% of the divergence from the long-term equilibrium connection between the Growth in the Domestic Product (GDP) and its drivers is adjusted. The one-year lags of VAT and TTR are both significant in describing

fluctuations in GDP at a 5% level, according to a cursory analysis of the t-statistics of the coefficients of the explanatory variables.

*Do Not Copy, Lead City University, Nigeria*

**Table 4.1.9: (VAR) Model for Vector Auto Regression**

|         | TTR        | VAT        |
|---------|------------|------------|
| TTR(-1) |            | -0.000151  |
|         | 0.381752   |            |
|         | -0.23516   | -0.00184   |
|         | [ 1.62338] | [-0.08225] |
| TTR(-2) | -0.386875  | 0.00065    |
|         | -0.23193   | -0.00182   |
|         | [-1.66809] | [ 0.35802] |
| VAT(-1) |            | 2.538226   |
|         | -40.38753  |            |
|         | -46.1388   | -0.36109   |
|         | [-0.87535] | [ 7.02936] |
| VAT(-2) |            | -1.703361  |
|         | 91.35085   |            |
|         | -56.1268   | -0.43926   |
|         | [ 1.62758] | [-3.87783] |
| C       |            | 8274.589   |
|         | -2147615   |            |
|         | -1898170   | -14855.4   |
|         | [-1.13141] | [ 0.55701] |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

According to table 4.1.9 above, the findings of the VAR model show that a one-year lag in total tax revenue (TTR<sub>t-1</sub>) accounts for around 38% of changes in total tax revenue, while a two-year lag has a negative relationship with TTR. Value-added Tax (VAT-1) with a one-year lag is not significantly connected to TTR, while Value-added Tax (VAT-2) with a two-year lag is highly related to TTR and accounts for around 91% of changes in TTR. This implies that it takes around two (2) years for VAT to significantly affect Total Tax Revenue (TTR). TTR delays have a small and minor impact on VAT. The results mentioned above might support the variance.

**Table 4.1.10: Difference Composition**

| Variance Decomposition of TTR: |         |      |      | Variance Decomposition of VAT: |         |     |       |
|--------------------------------|---------|------|------|--------------------------------|---------|-----|-------|
| Period                         | S.E.    | TTR  | VAT  | Period                         | S.E.    | TTR | VAT   |
| 1                              | 521978  | 1000 | 0    | 1                              | 40850.7 | 0.3 | 99.6  |
| 2                              | 579276  | 91.2 | 8.0  | 2                              | 11140.5 | 0.2 | 99.3  |
| 3                              | 603284  | 89.2 | 10.6 | 3                              | 22360.5 | 0.3 | 99.3  |
| 4                              | 643596  | 82.3 | 17.7 | 4                              | 38622.3 | 0.5 | 99.9  |
| 5                              | 888900  | 43.5 | 56.8 | 5                              | 60743.3 | 0.6 | 99.38 |
| 6                              | 1455564 | 16.7 | 83.2 | 6                              | 80358.5 | 0.7 | 99.0  |
| 7                              | 2350900 | 6.8  | 93.1 | 7                              | 237264  | 0.7 | 99.2  |
| 8                              | 3611644 | 3.2  | 96.7 | 8                              | 163931  | 0.8 | 99.1  |
| 9                              | 5269628 | 1.9  | 98.0 | 9                              | 76240   | 0.9 | 99.0  |
| 10                             | 7321219 | 1.4  | 98.6 | 10                             | 12163   | 0.9 | 99.0  |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

Table 4.1.10 shows that for the short run periods 1 and 2, respectively, VAT accounts for 0% and 8% of the prediction error variations of TTR. The chart also demonstrates that over time and in the long term, VAT accounts for a growing share of the variance in prediction error for TTR. TTR does not, however, account for a sizable amount of the prediction error variations for VAT, in contrast to VAT. The Variance Aggregation findings unequivocally demonstrate that VAT

with time progressively accounts for variations in TTR. The significance of the aforementioned finding is that VAT has a strong ability to explain variations in the TTR over time.

**Table 4.1.11: Dependence Variable**

| Dependent Variable | Variable: Coefficient | VAT Std. Error | t-Statistic | Prob. |
|--------------------|-----------------------|----------------|-------------|-------|
| C                  | -17483.3              | 4417.36        | -3.95928    | 0.008 |
| TIME               | 4081.54               | 336.15         | 12.1521     | 0     |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

To find out how VAT varies over time, Table 4.1.11 displays the outcome of the regression of VAT versus time. With a t-statistic of 12.1 and a p-value of 0, the coefficient of time has a positive value of 40,812.5, as shown in the table above. This demonstrates that VAT is increasing over time and has a favorable tendency.

## 4.2

## Test of Hypothesis

### 4.2.1

### Hypothesis One

**H<sub>01</sub>:** Value added tax has no significant effect on revenue generation in Nigeria.

**Table 4.2.1: One – Sample Statistic**

|                   | N  | Mean      | Std. Deviation | Std. Error<br>Mean |
|-------------------|----|-----------|----------------|--------------------|
| VAT               | 27 | 29390.22  | 20290.82       | 5231.27            |
| Total Tax Revenue | 27 | 437718.70 | 202117.99      | 55018.57           |

**Source:** Computation from SPSS 18 version

**Table 4.2.2: One – Sample Test**

|                   | Test Value = 0 |    |                 |                  |                                             |            |
|-------------------|----------------|----|-----------------|------------------|---------------------------------------------|------------|
|                   | t              | df | Sig. (2-tailed) | Mean Differences | 95% Confidences Interval of the Differences |            |
|                   |                |    |                 |                  | Lower                                       | Upper      |
| VAT               | 5.63           | 14 | .000            | 293790.22        | 181765.29                                   | 405815.14  |
| Total Tax Revenue | 8.09           | 14 | .000            | 4327718.70       | 3180218.00                                  | 5475219.39 |

**Source:** Computation from SPSS 18 version

### Decisions:

The computed t-value from the one sample t-test table above is 13.714, but the table t-value is 1.812. This indicates that the computed t-value ( $13.714 > 1.812$ ) is higher than the table t-value. Value Added Tax (VAT) is evident from this has effect on revenue. The study therefore, reject null hypothesis and uphold alternative hypothesis which states that Value Added Tax (VAT) has significant effect on revenue generated in Nigeria.

#### 4.2.2

#### Hypothesis Two

**H<sub>02</sub>:** There is no significant relationship between value Added Tax (VAT) and Public Infrastructure expenditure in Nigeria.

**Table 4.2.3: One – Sample Statistic**

|     | N  | Mean      | Std. Deviation | Std. Error<br>Mean |
|-----|----|-----------|----------------|--------------------|
| VAT | 27 | 293790.22 | 202290.82      | 52231.27           |
| GDP | 27 | 195983.19 | 173232.12      | 44728.21           |

**Source:** Computation from SPSS 18 version

**Table 4.2.4: One – Sample Test**

|     | Test Value = 0 |    |                 |                  |                                             |               |
|-----|----------------|----|-----------------|------------------|---------------------------------------------|---------------|
|     | T              | df | Sig. (2-tailed) | Mean Differences | 95% Confidences Interval of the Differences |               |
|     |                |    |                 |                  | Lower                                       | Upper         |
| VAT | 5.625          | 27 | .000            | 293790.22000     | 181765.2969                                 | 405815.1431   |
| GDP | 4.382          | 27 | .001            | 195983.2619200   | 100050.294840                               | 291916.229000 |

**Source:** Computation from SPSS 18 version

#### Decisions:

The computed t-value from the one sample t-test table above is 10.007, but the table t-value is 1.812. This indicates that the estimated t-value exceeds the table t-value ( $10.007 > 1.812$ ). It displays that good accountability of Value Added Tax (VAT) has contributed to the development of public infrastructure in Nigeria. As a result, the study rejects the null hypothesis and supports the alternative hypothesis that Value Added Tax (VAT) leads to the development of public infrastructure through Gross Domestic Product in Nigeria.

### 4.2.3

### Hypothesis Three

**H<sub>03</sub>:** Value Added Tax (VAT) have no significant effect on public spending on human capital development in Nigeria.

**Table 4.2.5: One – Sample Statistics**

|                   | N  | Mean       | Std. Deviation | Std. Error<br>Mean |
|-------------------|----|------------|----------------|--------------------|
| VAT               | 27 | 1863926.67 | 1429760.19     | 369162.49          |
| Total Tax Revenue | 27 | 321001.22  | 194025.54      | 50097.18           |

**Source:** Computation from SPSS 18 version

**Table 4.2.6: One-Sample Test**

|                   | Test Value = 0 |    |                 |                 |                                           |              |
|-------------------|----------------|----|-----------------|-----------------|-------------------------------------------|--------------|
|                   | t              | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |              |
|                   |                |    |                 |                 | Lower                                     | Upper        |
| VAT               | 5.049          | 27 | .000            | 1863926.66667   | 1072151.8668                              | 2655701.4665 |
| Total Tax Revenue | 6.408          | 27 | .000            | 321001.22000    | 213553.4557                               | 428448.9843  |

**Source:** Computation from SPSS 18 version

### Decisions:

The computed t-value from the one sample t-test table above is 11.457, but the table t-value is 1.812. This indicates that the computed t-value ( $11.457 > 1.812$ ) is higher than the table t-value. It demonstrates how Value Added Tax (VAT) has made it easier for businessmen to spend by removing their burdens and complexities. Thus, the analysis rejects the null hypothesis and supports the alternative hypothesis that Value Added Tax (VAT) has a significant effect on public spending on human capital development in Nigeria.

#### 4.2.4

#### Hypothesis Four

**H<sub>0</sub>4:** The generation of Value Added Tax (VAT) does not have any significant effect on public military expenditure in Nigeria.

**Table 4.2.7: One – Sample Statistics**

|     | N  | Mean     | Std. Deviation | Std. Error<br>Mean |
|-----|----|----------|----------------|--------------------|
| VAT | 27 | 18626.67 | 142970.18      | 36962.49           |
| GDP | 27 | 32101.22 | 194025.54      | 50097.18           |

**Source:** Computation from SPSS 18 version

**Table 4.2.8: One – Sample Test**

|     | Test Value = 0 |    |                 |                  |                                             |              |
|-----|----------------|----|-----------------|------------------|---------------------------------------------|--------------|
|     | t              | df | Sig. (2-tailed) | Mean Differences | 95% Confidences Interval of the Differences |              |
|     |                |    |                 |                  | Lower                                       | Upper        |
| VAT | 6.055          | 27 | .000            | 1863926.66667    | 1072151.8668                                | 2655701.4665 |
| GDP | 7.406          | 27 | .000            | 321001.22000     | 213553.4557                                 | 428448.9843  |

**Source:** Computation from SPSS 18 version

### Decisions:

The computed t-value from the one sample t-test table above is 13.461, but the table t-value is 1.812. This indicates that the computed t-value ( $13.461 > 1.812$ ) is higher than the table t-value. It displays that good generation of Value Added Tax (VAT) has contributed to the development of public military in Nigeria. As a result, the study rejects the null hypothesis and supports the alternative hypothesis that Value Added Tax (VAT) leads to the development of public military expenditure through Gross Domestic Product in Nigeria.

The four hypotheses were investigated, and the results indicate that Value Added Tax (VAT) adds to both Nigeria's total public income and GDP growth. Additionally, it emerges that the Value Added Tax (VAT) revenue target has an effect on the actual VAT throughout the research period.

### 4.3

### Discussion of Findings

The finding implies that according to the first theory, VAT has little effect on overall revenue generation in Nigeria. We rejected this theory and adopted the alternative, which said that VAT had a considerable influence on public revenue, based on the findings of the empirical investigation. The result is consistent with several extant studies. Although this study did not take into account the long-run characteristics of the study's data, which covered a period of time, the results are compatible with those of experts who used the Ordinary Least Square estimation of multiple regression of Twenty - Seven (27) years<sup>1</sup>. The considerable impact of VAT on total revenue seen in this study is consistent with research showing a strong positive impact of VAT on national income as determined by correlation analysis<sup>2</sup>. As a result of using the Error Correction Model data analysis approach to account for the stationary nature of the research's variable, the study gives more convincing evidence<sup>3</sup>.

The study, which tested the second hypothesis, found that there was no significant relationship between Nigerian public infrastructure spending and VAT, but that a two-year lag in VAT had a detrimental impact on GDP growth. This result is in line with negative but insignificant relationship between VAT and Public Infrastructure expenditure<sup>4</sup>, this in this investigation was demonstrated by the VAT one-year lag. Because the same techniques were used in both investigations, our findings were consistent<sup>5</sup>.

Our results in relation to hypothesis three, which claims that value-added tax does not have a significant effect on public spending on human capital development through GDP. It is also determined that the trend is not important. This provides the notion that there have been rises in VAT throughout time in capital development in Nigeria, demonstrating that the tax authorities

were resolving VAT collection issues and removing systemic friction. This result conflicts with that of another expert, who determined that the VAT dropped between 2005 and 2011<sup>6</sup>. The discrepancy can be ascribed to the technique being different in that this study used secondary data as opposed to primary data in a survey research design used by other experts<sup>7</sup>. Our finding is in consonance with other scholars, they all reported that from 1994 to 2021, VAT increased steadily, indicating a favorable trend in VAT as demonstrated by this study<sup>9</sup>.

The four assumptions were investigated, and the results indicate that Value Added Tax (VAT) adds to both Nigeria's overall tax income and GDP growth. Furthermore, it emerges that the Value Added Tax (VAT) revenue objective affects the actual VAT during the research period<sup>11</sup>.

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## **Chapter Five**

### **Conclusion**

In this chapter, we presented the summary of the basic findings of this work and, at the same time, compared them with the objectives of this work. Meanwhile, the contributions of the study as well as the conclusion and recommendations are also made based on the findings of this study.

#### **5.1 Summary of Findings**

The following conclusions were made in light of the analyses' findings;

- i. The outcome demonstrates how Value Added Tax (VAT) helps Nigeria generate its entire tax income.
- ii. The study also found a connection between Value Added Tax (VAT) and Public Infrastructure expenditure which adds to the Nigerian Gross Domestic Product.
- iii. Value Added Tax (VAT) have significant effect on public spending on human capital development within the period of the study in Nigeria.
- iv. And that the generation of Value Added Tax (VAT) has significant effect on public military expenditure in Nigeria.

#### **5.2 Conclusion**

In this study, the impact of Nigeria's Value Added Tax (VAT) on tax collection and economic expansion was examined. It especially looked at the trajectory of Value Added Tax (VAT) over the period under study as well as its impact on GDP or total revenue earned in Nigeria from 1994 to 2021.

In the study, time series data were used to perform a regression for VAT on total tax revenue and GDP. The regression employed was autoregression and vector error correction methods. The statistics for the years 1994–2021 include GDP, VAT, and Total Tax income at the end of each year. Tests for stationarity and co-integration were undertaken in order to incorporate the variables' long-term characteristics. According to the study, VAT significantly affects total tax income with a two-year lag and progressively accounts for changes in total tax revenue over time. The research demonstrates that VAT significantly and adversely affects GDP with a one-year lag. Since the trend in VAT has a positive coefficient, it is clear that VAT is rising with time.

### **5.3 Recommendations**

Following the study's conclusions, it was determined that the VAT has a considerable beneficial impact on the GDP, CAP, and TTR of the Nigerian economy. It also has a large positive impact on the GDP of other developing nations.

Consequently, the researcher suggested the following:

- i. In order for economic entities to coordinate their efforts with those of tax authorities, the government should assess the VAT collecting process critically, do away with bureaucratic red tape, and increase accountability.
- ii. Governmental companies, agencies, and ministerial departments are urged to be dependable, obedient, and prudent with the public monies obtained through the VAT by constructing the infrastructure required to enhance Nigeria's economic activities and raise GDP.

- iii. The government should make conscious efforts to broaden economic activity to increase the improved level of life since standard of living improves with greater per capita income.
- iv. The government should keep a careful eye on those who are eligible to pay VAT in order to encourage quick remittance of VAT income and submission of VAT invoice for accurate tax audit by the Federal Inland Income Services (FIRS) to guarantee adherence to tax laws as of the date of due.

#### **5.4 Contribution to Knowledge**

This study really digs deep into the submissions of previous literature in taking a position, and would also serve as a reference material for future researchers because of its ability to fill-in the vacuums noted in previous studies, hence the need to extend the work to 2021 thereby capturing the effect of the increase of VAT from 5% to 7.5% on public revenue and spending.

Basically, the study does not only support the fact (with evidences) that value-added tax is an integral component to total annual revenue in Nigeria but also showed its immense contribution to government meeting her both recurrent and capital expenditures.

The study was also conducted to correct the negative perception of the populace (individual taxpayers and business owners) that the increase in VAT rate from 5% to 7.5% as enshrined in the Finance Act 2020 was not the root cause of increase in the supplied of goods and services of items as VAT is a chain consumption tax system where the final consumers bear the burden of tax.

It also emphasized on the handshake that existed between Value Added Tax and Public Revenue (both independent variables) as an influence on the government spending on infrastructure, human capital and military expenditure.

### **5.5 Suggestions for Further Studies**

Given that this research work centered solely on the impact of value added tax (VAT) on public revenue and government spending in Nigeria. Future researchers can examine the contribution of other indirect taxes such as import duties, customs and excise duties, stamp duties, and *ad valorem* on public revenue and government spending.

The study covered a period of twenty-seven years (1994 – 2021), future study may expand the period by incorporating the current years in Nigeria.

Other econometric techniques can also be used by further researchers to examine the same subject matter. There are notable drawbacks in the course of this study which includes lack of statistics to cover other sub-Saharan African nations for the period. Therefore, the study enjoins other researchers to consider studying other nations in African continent for a comparative result.

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## Appendices

### Appendix 1

Value Added Tax and Gross Domestic Product (GDP) (1994 – 2021)

| Years | VAT (₦' Million) | GDP (₦' Million) | % Growth in VAT |
|-------|------------------|------------------|-----------------|
| 1994  | 7,261            | 1,399,702        |                 |
| 1995  | 20,761           | 2,907,358        | 186%            |
| 1996  | 31,000           | 4,032,300        | 49%             |
| 1997  | 34,000           | 4,189,250        | 10%             |
| 1998  | 36,000           | 3,989,450        | 6%              |
| 1999  | 47,100           | 4,679,212        | 31%             |
| 2000  | 57,500           | 6,713,575        | 22%             |
| 2001  | 91,800           | 6,895,198        | 60%             |
| 2002  | 108,600          | 7,795,758        | 18%             |
| 2003  | 136,400          | 9,913,518        | 26%             |
| 2004  | 159,500          | 11,411,067       | 17%             |
| 2005  | 178,100          | 14,610,882       | 12%             |
| 2006  | 221,600          | 18,564,595       | 24%             |
| 2007  | 289,600          | 20,657,318       | 31%             |
| 2008  | 401,700          | 24,296,329       | 39%             |
| 2009  | 481,400          | 24,794,239       | 20%             |
| 2010  | 564,890          | 54,612,264       | 17%             |
| 2011  | 659,154          | 62,980,397       | 17%             |
| 2012  | 710,555          | 71,713,935       | 8%              |
| 2013  | 802,684          | 80,092,563       | 13%             |
| 2014  | 802,965          | 89,043,615       | 0%              |

|      |           |             |     |
|------|-----------|-------------|-----|
| 2015 | 767,330   | 93,426,656  | -4% |
| 2016 | 828,200   | 108,916,911 | 8%  |
| 2017 | 972,350   | 114,834,459 | 17% |
| 2018 | 1,108,140 | 121,674,276 | 14% |
| 2019 | 1,188,580 | 144,210,492 | 7%  |
| 2020 | 1,536,834 | 152,324,071 | 29% |
| 2021 | 2,072,850 | 175,500,000 | 35% |

**Source:** CBN Statistical Bulletin; Federal Inland Revenue Service, World Bank and National Bureau of Statistics Report 2021.

| <b>Appendix 2</b>                      | <b>Preliminary Test</b> |
|----------------------------------------|-------------------------|
| <b>Dependent Variables</b>             | <b>REM</b>              |
| <b>VAT (Value Added Tax)</b>           | 0.551*** (0.008)        |
| <b>CAP (Capital Investment)</b>        | 0.941 (0.03)            |
| <b>LAB (Labour Force)</b>              | 0.615 (0.005)           |
| <b>CPS (Credit to Private Sector)</b>  | 0.657 (0.036)           |
| <b>GDP (Gross Domestic Product)</b>    | 0.55 (0.035)            |
| <b>FDI (Foreign Direct Investment)</b> | 0.673 (0.001)           |
| <b>C (Regression Coefficient)</b>      | 0.787*** (0.000)        |
| <b>R<sup>2</sup> (Reg. Coeff. Sq)</b>  | 0.621790                |
| <b>Adjusted R<sup>2</sup></b>          | 0.558755                |

**Source:** Researchers' E-View 9 result, 2022

| <b>Correlation Matrix</b> |                |                |                |            |            |            |
|---------------------------|----------------|----------------|----------------|------------|------------|------------|
| <b>VAT</b>                | <b>VAT</b>     | <b>CAP</b>     | <b>LAB</b>     | <b>CPS</b> | <b>FDI</b> | <b>GDP</b> |
| <b>CAP</b>                | 0.910<br>0.000 | 1              |                |            |            |            |
| <b>LAB</b>                | 0.970<br>0.000 | 0.904<br>0.000 | 1              |            |            |            |
| <b>CPS</b>                | 0.989<br>0.000 | 0.930<br>0.000 | 0.975<br>0.000 | 1          |            |            |

|            |       |       |       |       |       |   |
|------------|-------|-------|-------|-------|-------|---|
| <b>FDI</b> | 0.989 | 0.918 | 0.963 | 0.997 | 1     |   |
|            | 0.000 | 0.000 | 0.000 | 0.000 |       |   |
| <b>GDP</b> | 0.973 | 0.999 | 0.951 | 0.979 | 0.974 | 1 |
|            | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |   |

**Source:** E-views 9 output p-values are parenthesized as built.

### Var. Inflation Factor (VIF)

| Var. Inflation Factor |              |            |          |
|-----------------------|--------------|------------|----------|
|                       | Coefficients | Uncentered | Centered |
| Variable              | Variance     | VIF        | VIF      |
| C                     | 1.90E+12     | 2.66       | NA       |
| VAT                   | 43.12671     | 15.06      | 6.72     |
| TTR                   | 0.018485     | 10.78      | 6.72     |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

### Unit Root Test, a Stationarity Test

|     | LEVEL                 |                      | FIRST DIFFERENCE      |                      |            | Sou<br>rce:<br>The<br>out |
|-----|-----------------------|----------------------|-----------------------|----------------------|------------|---------------------------|
| VAR | ADF Test<br>Statistic | PP Test<br>Statistic | ADF Test<br>Statistic | PP Test<br>Statistic | ADF/PP CV  |                           |
| VAT | 0.743717              | 1.249464             | -3.455036             | -5.30787             | 0.59522883 |                           |
| GDP | 1.071143              | 0.974357             | -3.697945             | -3.83426             | 1.0993332  |                           |
| TTR | 0.794698              | 0.996435             | -4.99552              | -9.27056             | 0.79754123 |                           |

put p-values are in parentheses as compiled from E-views 9.

### Test for Co-integration

Sample: 1996 to 2018 (adjusted)

After modifications, there were 23 observations total.

Trend supposition: Trend with linear determinism

GDP VAT TTR Series

|                                                                                                                                                                    |       |        |        |       |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|--------|-------|------|
| None *                                                                                                                                                             | 0.796 | 54.012 | 29.797 | 0.000 | 0.05 |
| At most 1 *                                                                                                                                                        | 0.449 | 17.498 | 15.495 | 0.025 |      |
| At most 2                                                                                                                                                          | 0.152 | 3.793  | 3.841  | 0.052 |      |
| At the 0.05 level, the trace test shows two cointegrating equations (s). * At this level, the hypothesis is rejected. p-values from MacKinnon-Haug-Michelis (1999) |       |        |        |       |      |

Lags interval: 1 to 1 (in the initial differences)

Unlimited Test of Cointegration and Rank (Trace)

Trace that is Speculated

| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.** |
|--------------|------------|-----------|----------------|---------|
|--------------|------------|-----------|----------------|---------|

**Source:** P-values are included in parentheses as compiled from E-views 9

### Model for Vector Auto Regression (VAR)

| Sample: 1996 to 2018 (adjusted)                                                                        |            |           |                |         |
|--------------------------------------------------------------------------------------------------------|------------|-----------|----------------|---------|
| Observations included: 20 after corrections                                                            |            |           |                |         |
| Trend supposition: deterministic linear trend series: TTR                                              |            |           |                |         |
| VAT                                                                                                    |            |           |                |         |
| (In initial differences) Lags interval: 1 to 1                                                         |            |           |                |         |
| The Trace test for unrestricted cointegration Hypothetical                                             |            |           |                |         |
| Trace                                                                                                  |            |           |                |         |
| 0.05                                                                                                   |            |           |                |         |
| No. of CE(s)                                                                                           | Eigenvalue | Statistic | Critical Value | Prob.** |
| None *                                                                                                 | 0.523145   | 23.57497  | 15.49471       | 0.0025  |
| At most 1 *                                                                                            | 0.354806   | 8.764094  | 3.841466       | 0.0031  |
| At the 0.05 level, the trace test shows two cointegrating equations (eqns).                            |            |           |                |         |
| * This means that the hypothesis is rejected at this level. MacKinnon-Haug-Michelis p-values from 1999 |            |           |                |         |

**Source:** The output p-values are included in parentheses as compiled from E-views 9.

### Frugality in the ECM Result

| Dependent Variable: D(GDP)<br>Method: Least Squares |           |                   |          |          |
|-----------------------------------------------------|-----------|-------------------|----------|----------|
|                                                     | Coeff     | Std. Error        | t-Stat   | Prob.    |
| ECM(-1)                                             | -0.917795 | 0.207348          | -4.42635 | 0.0006   |
| D(GDP(-1))                                          | -0.02353  | 0.219187          | -0.10735 | 0.916    |
| D(GDP(-2))                                          | -0.071686 | 0.253321          | -0.28298 | 0.7813   |
| D(VAT(-1))                                          | -90.3622  | 38.41349          | -2.35236 | 0.0338   |
| D(VAT(-2))                                          | -48.60712 | 25.51615          | -1.90496 | 0.0775   |
| D(TTR(-1))                                          | 8376.222  | 3467.942          | 2.415329 | 0.03     |
| D(TTR(-2))                                          | 3530.839  | 3293.476          | 1.07207  | 0.3018   |
| C                                                   | 7536760   | 2163068           | 3.484291 | 0.0036   |
| R-squared                                           | 0.643395  | Mean dep var      |          | 4561191  |
| Adj R-squared                                       | 0.465092  | S.D. dep var      |          | 7392921  |
| Log-likelihood                                      | -367.3153 | Han-Quinn criter. |          | 34.21303 |
| F-statistic                                         | 3.60844   | Durbin-Watson     |          | 2.229538 |
| Prob(F-stat)                                        | 0.0196    |                   |          |          |

**Source:** The output p-values are in parentheses as compiled from E-views

### (VAR) Model for Vector Auto Regression

|         | TTR        | VAT        |
|---------|------------|------------|
| TTR(-1) |            | -0.000151  |
|         | 0.381752   |            |
|         | -0.23516   | -0.00184   |
|         | [ 1.62338] | [-0.08225] |

|          |            |            |
|----------|------------|------------|
| TTR(-2)  | -0.386875  | 0.00065    |
|          | -0.23193   | -0.00182   |
|          | [-1.66809] | [ 0.35802] |
| VAT(-1)  |            | 2.538226   |
|          | -40.38753  |            |
|          | -46.1388   | -0.36109   |
|          | [-0.87535] | [ 7.02936] |
| VAT (-2) |            | -1.703361  |
|          | 91.35085   |            |
|          | -56.1268   | -0.43926   |
|          | [ 1.62758] | [-3.87783] |
| C        |            | 8274.589   |
|          | -2147615   |            |
|          | -1898170   | -14855.4   |
|          | [-1.13141] | [ 0.55701] |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

#### Difference Composition

| Variance Decomposition of TTR: |         |      |      | Variance Decomposition of VAT: |         |     |       |
|--------------------------------|---------|------|------|--------------------------------|---------|-----|-------|
| Period                         | S.E.    | TTR  | VAT  | Period                         | S.E.    | TTR | VAT   |
| 1                              | 521978  | 1000 | 0    | 1                              | 40850.7 | 0.3 | 99.6  |
| 2                              | 579276  | 91.2 | 8.0  | 2                              | 11140.5 | 0.2 | 99.3  |
| 3                              | 603284  | 89.2 | 10.6 | 3                              | 22360.5 | 0.3 | 99.3  |
| 4                              | 643596  | 82.3 | 17.7 | 4                              | 38622.3 | 0.5 | 99.9  |
| 5                              | 888900  | 43.5 | 56.8 | 5                              | 60743.3 | 0.6 | 99.38 |
| 6                              | 1455564 | 16.7 | 83.2 | 6                              | 80358.5 | 0.7 | 99.0  |
| 7                              | 2350900 | 6.8  | 93.1 | 7                              | 237264  | 0.7 | 99.2  |
| 8                              | 3611644 | 3.2  | 96.7 | 8                              | 163931  | 0.8 | 99.1  |
| 9                              | 5269628 | 1.9  | 98.0 | 9                              | 76240   | 0.9 | 99.0  |
| 10                             | 7321219 | 1.4  | 98.6 | 10                             | 12163   | 0.9 | 99.0  |

**Source:** The output p-values are in parentheses as compiled from E-views 9.

### Appendix 3

1. Value added Tax has no significant effect on revenue generation in Nigeria.

|                   | N  | Mean      | Std. Deviation | Std. Error<br>Mean |
|-------------------|----|-----------|----------------|--------------------|
| VAT               | 27 | 29390.22  | 20290.82       | 5231.27            |
| Total Tax Revenue | 27 | 437718.70 | 202117.99      | 55018.57           |

**Source:** Computation from SPSS 18 version.

#### One – Sample Test

|                   | Test Value = 0 | t    | df | Sig. (2-tailed) | Mean Differences | 95% Confidences Interval of the Differences |            |
|-------------------|----------------|------|----|-----------------|------------------|---------------------------------------------|------------|
|                   |                |      |    |                 |                  | Lower                                       | Upper      |
| VAT               |                | 5.63 | 14 | .000            | 293790.22        | 181765.29                                   | 405815.14  |
| Total Tax Revenue |                | 8.09 | 14 | .000            | 4327718.70       | 3180218.00                                  | 5475219.39 |

**Source:** Computation from SPSS 18 version.

2. There is no significant relationship between value Added Tax (VAT) and Public Infrastructure expenditure in Nigeria.

|     | N  | Mean      | Std. Deviation | Std. Error<br>Mean |
|-----|----|-----------|----------------|--------------------|
| VAT | 27 | 293790.22 | 202290.82      | 52231.27           |
| GDP | 27 | 195983.19 | 173232.12      | 44728.21           |

**Source:** Computation from SPSS 18 version

|     | Test Value = 0 | T     | df | Sig. (2-tailed) | Mean Differences | 95% Confidences Interval of the Differences |             |
|-----|----------------|-------|----|-----------------|------------------|---------------------------------------------|-------------|
|     |                |       |    |                 |                  | Lower                                       | Upper       |
| VAT |                | 5.625 | 27 | .000            | 293790.22000     | 181765.2969                                 | 405815.1431 |

|     |       |    |      |                |               |               |
|-----|-------|----|------|----------------|---------------|---------------|
| GDP | 4.382 | 27 | .001 | 19598326.19200 | 10005029.4840 | 29191622.9000 |
|-----|-------|----|------|----------------|---------------|---------------|

**Source:** Computation from SPSS 18 version

3. Value Added Tax (VAT) have no significant effect on public spending on human capital development in Nigeria.

**Table 4.2.5: One – Sample Statistics**

|                   | N  | Mean       | Std. Deviation | Std. Error Mean |
|-------------------|----|------------|----------------|-----------------|
| VAT               | 27 | 1863926.67 | 1429760.19     | 369162.49       |
| Total Tax Revenue | 27 | 321001.22  | 194025.54      | 50097.18        |

**Source:** Computation from SPSS 18 version

### One-Sample Test

|                   | Test Value = 0 |    |                 |                 |                                           |              |
|-------------------|----------------|----|-----------------|-----------------|-------------------------------------------|--------------|
|                   | t              | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |              |
|                   |                |    |                 |                 | Lower                                     | Upper        |
| VAT               | 5.049          | 27 | .000            | 1863926.66667   | 1072151.8668                              | 2655701.4665 |
| Total Tax Revenue | 6.408          | 27 | .000            | 321001.22000    | 213553.4557                               | 428448.9843  |

**Source:** Computation from SPSS 18 version.

4. The generation of Value Added Tax (VAT) does not have any significant effect on public military expenditure in Nigeria.

|     | N  | Mean     | Std. Deviation | Std. Error Mean |
|-----|----|----------|----------------|-----------------|
| VAT | 27 | 18626.67 | 142970.18      | 36962.49        |
| GDP | 27 | 32101.22 | 194025.54      | 50097.18        |

**Source:** Computation from SPSS 18 version

### One – Sample Test

|     | Test Value = 0 |    |                 |                  |                                             |              |
|-----|----------------|----|-----------------|------------------|---------------------------------------------|--------------|
|     | t              | df | Sig. (2-tailed) | Mean Differences | 95% Confidences Interval of the Differences |              |
|     |                |    |                 |                  | Lower                                       | Upper        |
| VAT | 6.055          | 27 | .000            | 1863926.66667    | 1072151.8668                                | 2655701.4665 |

|     |       |    |      |              |             |             |
|-----|-------|----|------|--------------|-------------|-------------|
| GDP | 7.406 | 27 | .000 | 321001.22000 | 213553.4557 | 428448.9843 |
|-----|-------|----|------|--------------|-------------|-------------|

**Source:** Computation from SPSS 18 version

## Lead City University

### Student Bio-data

#### A. Personal Data

Full Name: Oladimeji Hammed SORINMADE

Address: 44, Araromi Street, Ikorodu

Date of Birth: 22<sup>nd</sup> January, 1981

Place of Birth: Ilupeju, Lagos State

Nationality: Nigerian

Next of kin: Sorinmade Oluwayemisi Aina

Address: 44, Araromi Street, Ikorodu

Mobile Number; 08130303889, 07085473321

#### B. Educational Background

##### Educational Institutions Attended with Dates and Qualifications

|                                                      |             |
|------------------------------------------------------|-------------|
| Edu Nursery and Primary School, Ikotun Lagos         | 1985 – 1991 |
| Ositelu Memorial College, Ogere Remo Ogun State      | 1992 – 1998 |
| Lagos State Polytechnics, Ikorodu                    | 2000 – 2006 |
| Ladoke Akintola University of Technology – Ogbomosho | 2015 - 2016 |

##### Academic Qualification Obtained (with dates)

|                                            |      |
|--------------------------------------------|------|
| First School Leaving Certificate (F.S.L.C) | 1991 |
| General Certificate Examination (G.C.E)    | 2001 |

|                                        |      |
|----------------------------------------|------|
| Higher National Diploma ( Distinction) | 2007 |
|----------------------------------------|------|

|                                         |      |
|-----------------------------------------|------|
| Master in Business Administration (MBA) | 2016 |
|-----------------------------------------|------|

**C. Working Experience with Dates**

|                                       |                           |
|---------------------------------------|---------------------------|
| Great Brand Nigeria Limited           | Sept, 2009- July, 2015    |
| Blafy International Limited           | August 2015 - Dec, 2015   |
| Church-gate Nigeria Limited           | Jan, 2016 – Sept, 2018    |
| R.T Briscoe Nig. Plc                  | Sept, 2018 – August, 2021 |
| CIG Motors Nig. Ltd                   | Sept 2021 – July, 2023    |
| NASCON (A subsidiary of Dangote PLC ) | August, 2023 – to date    |

**D. Award and Fellowship – Best Manager of the Year 2022**

**E. Membership of Academic Professional Bodies**

|                                                     |      |
|-----------------------------------------------------|------|
| Institute of Chartered Accountants of Nigeria (ACA) | 2011 |
| Chartered Institute of Bankers of Nigeria (CIBN)    | 2022 |
| Institute of Chartered Accountants of Nigeria (FCA) | 2023 |

|                        |     |
|------------------------|-----|
| <b>F. Publications</b> | NIL |
|------------------------|-----|

**G. Major Conference attended with Dates**

|                 |      |
|-----------------|------|
| ICAN Conference | 2023 |
|-----------------|------|

**H References**

|                              |             |
|------------------------------|-------------|
| Mrs. Mogaji Hamdalat Aramide | 08039843224 |
|------------------------------|-------------|

|                          |             |
|--------------------------|-------------|
| Barrister Levi Adikwaone | 08023081105 |
|--------------------------|-------------|

**Signature**

**Date**

**The University Compliance Certification**

This is to certify that this thesis was carried out by Oladimeji Hammed SORINMADE with matriculation number LCU/PG/001971 on the topic Value Added Tax, Public Revenue and Government Expenditure in Nigeria, in the Department of Management and Accounting, Faculty of Management and Social Sciences, Lead City University, Ibadan, for the award of Master Degree (M.Sc.) in Finance and this work has not been previously submitted and is in full compliance with the approved University format and style.

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**Signature**

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**Date**