IMPACT OF TAX RELATED INCOME ON ECONOMIC STABILITY OF ADAMAWA STATE

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ABSTRACT

The study examined the impact of tax related revenue on economic stability of Adamawa State, The study adopted a survey method of research design in the form of cross-sectional study in which data was collected through questionnaire administered to 187 respondents from Adamawa State Board of Internal Revenue and other stakeholders in the state. The collected data was analyzed using descriptive, correlation and regression analysis in other to establish the impact of tax related revenue of economic stability of Adamawa State. The result of the analysis revealed that tax revenue sources, including PAYE and WHT are significant determinants of economic stability in Adamawa State. However, specific revenue measures like PAYE and WHT might have short-term benefits but pose challenges for long-term sustainability, as indicated by the explosive behavior implied by the error correction terms. Therefore, while tax revenue is crucial for stability and infrastructural development, careful policy considerations are needed to ensure these revenue streams contribute to sustainable economic and infrastructural progress. The study therefore, recommends that policymakers to strengthen revenue collection systems to sustain and stimulate economic development. Diversifying revenue sources beyond traditional taxes such as PAYE, CIT, WHT, DAT, and ADT can mitigate overdependence on any single stream and reduce vulnerabilities associated with fluctuations in specific revenue types. Overall, a strategic approach focused on expanding and stabilizing IGR, coupled with prudent fiscal management, will support sustainable infrastructural development and foster resilient economic stability in Adamawa State.

Keywords: *Tax revenue, economic stability, Pay As you Earn, Withholding tax, Tax administration*

1.0 Introduction

Different countries throughout the globe do design different system and form of governance to enable them to run, control and manage their territories. Nigeria is not exempted and her present form of governance is through federalism, which involves three tiers of governments, that is, federal, state and local government level. Out of all these three tiers of government, state government is very strategic in terms of development and service delivery to the people.

State government is the hub in a federalism that helps to create and sustain socio-economic and political development. Tax revenues include PAYE (Pay As You Earn), direct assessment, withholding tax, property tax, capital gains tax for individuals, sales or consumption tax, pool betting taxes, lottery and casino taxes, business premises and registration fees, development levies for taxable individuals, fees for right of occupancy on urban land owned by the State government, market taxes and levies.

These tax and non-tax revenues that are generated by the state government excluding the share of the federation account are known as the State Internally Generated Revenue (IGR). Among them, the most prominent and frequently featuring in State IGR collections are the PAYE, withholding tax (WHT), direct assessment tax and the administrative Tax (comprising the licenses, fees and fines). Every income that is received by an individual, whether self-employed or salaried staff is chargeable for PAYE under the Personal Income Tax Act (PITA), 2011. The withholding tax from business names (enterprises not incorporated with the Corporate Affairs Commission) is accruable to the State and collectible by the State Internal Revenue Service (SIRS) while those from incorporated entities (private or public companies) are paid to the Federal government through the Federal Internal Revenue Service (FIRS). The individuals that run their small businesses with the state are those chargeable and are assessed for the direct assessment tax based on the state direct assessment baseline, policy or laws.

Economic stability is concerned with increase in production of goods and services over a given period of time (Edori, 2022). Unarguably, the desire to achieve and sustain economic stability target is reason behind the important roles played by tax policies in both developed and developing economies. It is the objective of any well-meaning government to enhance the living conditions of her citizens through the use of major economic policy, which tax policy is one of them (Adegboyo, Keji & Fasina, 2021). Tax policy is one of the economic policies mostly used to stabilize and sustain the economic stability, especially at the time of economic downturn. The implementation of tax policy in any economy is practically used to assess sustainable economic activities of the country. The evolutionary pattern of tax policy development is paramount to the measurement of the stability and performance of the several types of taxation in different economies all over the globe. The greater percentage of income tax revenue is generated from conglomerates and from government workers in most African countries. The administration of the tax to petty traders, self-employed staff or professionals are confronted with dangerous administrative challenges because of the difficulties faced in the assessment of income tax where no proper book of accounts are prepared and kept (Adefeso, 2018).

Most state governments in Nigeria do no longer perform their responsibilities simply because of poor finances arises from tax revenue. The bad financial situation is further aggravated by the prevailing inflationary situation in this country which erodes the value of funds available to render essential social services to the people. Economic stability is highly associated with fund, much revenue is needed to plan, execute and maintain infrastructures and facilities at the state government level. They need revenue generated for such developmental projects like construction of accessible roads, building of public schools, health care centers, construction of bridges among others are sources generated from taxes, royalties, haulages, fines and grants from states, national and international governments. Thus, state government cannot embark, execute and possibly carryout the maintenance of these projects and other responsibilities without adequate revenue generation.

It is an indisputable fact that the revenue generation of most state governments in Nigeria is far below what it should be, all things being equal. The resultant effect of the poor revenue generation is that inadequate finance remains the most single devastating problem undermining effective state government administration in the country. Irrespective of the percentage increase in IGR in Adamawa State, close observation showed that the state still could not meet up with their statutory responsibilities of service delivery. This is evidenced in the available numbers of non- tarred state roads, lack of proper drainage systems, absent of street-light in some streets in the city, ill-equipped general hospitals, ill-equipped tertiary institutions, and so on. It is still not resolved how the increase in tax revenue and public expenditure has not reflected commensurately in the provision of basic amenities in the state.

State governments have not been able to meet their obligations to the people because they depend majorly on allocation from the Federal government, which keeps dwindling in value. There are lots of untapped sources of revenue that state governments can use to increase their revenue base to help them perform their constitutional duties but they have not been able to toe these lines for economic buoyancy. The level of effectiveness in the collection of personal income tax (PAYE), withholding tax (WHT), direct assessment tax and administrative tax (licenses, fees & fines) in Adamawa State is abysmally low. With an estimated population of 4.9 million people and a Gross Domestic Product (GDP) of N2.66 trillion in 2021, Adamawa state has the 18th largest economy among the 36 states.

The state government is faced with myriads of problems ranging from corruption and embezzlement, poor financing, mismanagement of funds to poor leadership. This has deterred the development of state government in Nigeria. The major issues are; what has contributed to the non-performance; is it because of total dependence on federal statutory allocation? Is it as a result of poor tax revenue drive? Is it because of ineffective utilization of available scarce resources or mismanagement by public office holder? Among others, state government has always been over dependent on the statutory allocation thereby causing the state government to underperform which includes; Dilapidated infrastructural facilities, Unavailability of social services to rural populace and Underdevelopment of Local communities.

Indubitably much has been written about the need for enhanced allocation to the sub-nationals (states and local governments) from the Federation Account, as well as how to improve IGR of state governments in Nigeria, not much attention has been paid to the interaction between the tax revenue and the economic stability of the states. However the researcher will examine the effect of tax revenue [using Pay-as-you-earn (PAYE), withholding tax (WHT), direct assessment tax (DAT), and administrative tax (ADT) as proxy on economic stability measured with the infrastructural and social development of Adamawa State, Nigeria.

Based on the above stated problems, it has become necessary to conduct an analysis on the effect of tax revenue on the economic stability of Adamawa State.

2.0 LITERATURE REVIEW

This section reviews the literatures that are relevant to the problem under study. The review also covers conceptual issues, empirical issues as well as the theoretical framework of the study. The literature on tax revenue was reviewed, researches on tax revenue on economic activities will also be reviewed. Various theories that explain the concept of tax revenue in relation to economic activities will also be reviewed and a theory underpinning the study was adopted.

2.1 Conceptual Review

This section covers the conceptual clarifications that will be used in the study. These concepts includes the concept of tax revenue which explain various component of tax revenue, and the concept of economic stability.

2.1.1 Concept of Tax revenue and state IGR

Tax revenue assists the state government to be responsible and deliver on her mandate as a state to the citizen. This service delivery to the people includes the basic socio-economic needs of the people. There are plethora of challenges that faces revenue generation in public sector of Adamawa State such as non-deduction and failure to remit the deductions into government account. Meanwhile, poor government revenue generation mechanism has left most of the natural resources of the state unharnessed. This situation led to poor budget performance in government sector due to non-availability of enough internal revenue to finance major public expenditure both capital and recurrent.

The Constitution of the Federal Republic of Nigeria provided for the type of taxes that could be collected by the State governments as different from those to be collected by the federal government and the local government areas in Nigeria. Pay as You Earn (PAYE) system was originally developed in 1944 by Sir Paul Chambers in the United Kingdom. The tax authorities of many countries employ the Pay-as-You Earn (PAYE) system, where deductions are made from payrolls by the employer and subsequently remitted to the tax authorities on behalf of government with regular paychecks as they are earned (Hayes, 2023).

Pay As You Earn (PAYE) is a form of tax automatically deducted by an employer of labour from the staff's salaries and wages. PAYE is also known as Personal Income Tax (PIT), which in line with the provisions of Section 81 of the Personal Income Tax Act (PITA). Every income that is received by an individual, whether self-employed or salaried staff is chargeable under PITA. The amount to be deducted as PAYE is determined by employers in some countries but subject to government review. PAYE as deducted from each staff salary/wage by the employer must be remitted to the government periodically as provided by the law (Osun IRS, 2018). PAYE is designed to ensure that the aggregate amount of monthly deductions during a year is equal to the annual amount payable using the rates specified in Section 81 of the Personal Income Tax Act 1993 and the Operation of the Pay As You Earn (PAYE) Scheme Regulations (Adinoge, et al, 2022).

The Personal Income Tax Amendment Act of 2011 scrapped the old relief systems and increased relief for all taxable person(s). The amendment combined all reliefs into the Consolidated Relief Allowance (CRA), which combines all previous reliefs (Housing, Meal, Utility, Transport, Leave allowances, etc) into a single relief of N200,000 subject to a minimum tax of 1% of gross income (whichever is higher) plus 20% of the gross income. In addition to the Consolidated Reliefs and Allowances (CRA), the following items are tax exempt and tax is calculated after amounts paid in respect of these items are deducted; National Housing Fund Contributions, National Health Insurance Scheme, Life Assurance Premiums, Pension Deductions

At the end of the year, organizations must file updated returns on all salaries and wages paid to staff within the preceding tax year. Inability to file taxes is a criminal offence in Nigeria and any employer who defaults in making proper tax deduction or accurately account for deducted tax must pay the total amount of taxes due upon conviction. The employer will pay 10% annual interest in addition to the taxes for every year the taxes were not filed or not correctly filed. Also, employers of labour are liable to penalties and interest for failure to remit and late remittance to the appropriate authorities. Changes in the PIT law will affect the computation and remittance of PAYE. Therefore, employers and management personnel are advised to get current updates regarding the PIT law and assess the new law's impact on their employees.

Company Income Tax (CIT) collected by the state government in Nigeria is a significant component of tax revenue (IGR). It is imposed on the profits of companies operating within the state, including both incorporated and unincorporated entities. While the Federal Inland Revenue Service (FIRS) primarily collects CIT from companies with operations nationwide, the state governments have the constitutional authority to collect CIT from companies that are not registered with the Corporate Affairs Commission or that operate solely within the state (Personal Income Tax Act, 2011).

State governments, therefore, administer and collect CIT from non-incorporated companies, small-scale businesses, and enterprises not registered at the federal level, contributing to their internal revenue base (Abba, Bello, & Aliyu, 2017). This process enables states to harness revenue from corporate activities within their jurisdiction, supporting local development projects and service delivery (Ajayi et al., 2021).

In Nigeria, the collection of CIT by states varies depending on their capacity and enforcement mechanisms, but it remains a critical avenue for enhancing their financial independence and funding infrastructural stability (Olaoye & Akintayo, 2019). The emphasis on expanding and effectively managing company income tax collection is vital for states seeking to reduce over-dependence on federal allocations and to boost local economic development (Abba et al., 2017).

Withholding tax is also known as tax retention, tax deduction at source. It is an income tax paid to the government by the payer of the income rather than by the recipient of the income. The tax is thus withheld or deducted from the income due to the recipient. In most jurisdictions like in Nigeria, tax withholding applies to contract income, interest or dividends.

Generally, the amount of tax withheld is recorded as a payment on account of the taxpayer's final tax liability. The withheld tax may be refunded once it is determined, when a tax return is filed and the taxpayer's tax liability is less than the tax withheld or additional tax may be due if it is determined that the payer's tax liability is more than the tax withheld. In some cases, the withheld tax is treated as discharging the recipient's tax liability, and no tax return or additional tax is required. Such withholding is known as final withholding.

The amount of tax withheld on income payments other than employment income is usually a fixed percentage. In the case of employment income, the amount of withheld tax is often based on an estimate of the employee's final tax liability, determined either by the employee or by the government. The residence of the taxpayer is generally not relevant for the purpose of determining liability to tax or the application of Withholding Tax charge, but it is important to consider whether the provider/supplier of the goods or services is liable to Nigerian tax like Personal Income Tax. The payment rates applicable in the state for individual dividends, interest, and rent is 10%, Directors fees 10%, Royalties 15%, Commissions, Consultancy, Technical Services Fees 10%, Management Fees 5%, Construction/ Building Contracts 5%, and Contracts other than outright sales and purchase of goods in the ordinary course of business is also 5 %.(Olaoye & Akintayo ,2019; Adinoge, et al, 2022).

Administrative fees include fees for compulsory licenses, fines and other administrative fees that are sales of services. Other administrative fees include fees such as drivers' licenses, passports, court fees, radio licenses, and televisio licenses. Radio and television licenses are collected when public authorities provide general broadcasting services in the State. Before these fees will be considered as a sale of a service, the state government must exercise some regulatory functions in that regards.

These regulatory functions are inform of checking the competence or qualifications of the person concerned, checking the efficient and safe functioning of the equipment in question, and conducting some other kind of control that it wouldn't have been obliged to do if those entities are not in place. Fines and penalties are compulsory payments imposed on entities by courts of law or quasi-judicial bodies for violations of laws or administrative rules. Fines and penalties that are due to infringement of regulations and seen as relating to a particular tax are jointly recorded with that tax. Most fines and penalties are ascertained at a particular time.

Administrative fees are taxes imposed on offices, vehicles, land, property and equipment. They include but not limited to motor and drivers' licenses; land registration and survey fees; fines imposed on offices as well as fees received for international mail convey boxes and bags. PITA provides that any person or body corporate who, being obliged to deduct tax, fails to deduct or having deducted, fails to remit such deductions to the relevant tax authority within thirty (30) days from the date the amount was deducted or the time the duty to deduct arose, shall be liable to a penalty of an amount of 10 per cent of the tax not deducted or remitted plus interest at the prevailing monetary policy of the Central Bank of Nigeria (CBN).

2.1.2 Concept of Economic Stability

Economic stability simply refers to the increase in the production of economic goods and services in comparison with a given period of time (Senzak & Gbegi, 2021). In Jhingan (2016), economic stability is defined as a process which increases the real per capita income of a country. Economic stability can be described as a rise in the volume of the goods produced and services rendered over a particular period of time (Ordu & Nkwoji, 2019). The Organization for Economic Cooperation and Development (OECD) sees economic stability as a phenomenon of an active market productivity resulting in increase in Gross Domestic Product (GDP). Economic stability, according to Odu (2022), is the increase in the value of goods and services produced by an economy.

Economic stability is measured either in nominal or real terms. Though other alternative metrics exist for measuring aggregate economic stability, it is conventionally measured in terms of gross domestic product (GDP) or gross national product (GNP) (Senzak & Gbegi, 2021). The economists use an increase in country's Gross Domestic Product (GDP) to measure economic stability. It is the belief of the economists that adequate use of capital expenditure by government will result to rise in the productive sector of the economy, generate employment opportunities and finally result to a remarkable increase in the GDP. In a similar way, wobbling country's GDP may be a sign of wrongly channeled expenditure particularly when the government recurrent expenditure is substantially higher than the capital expenditure (World Bank, 2013). Meanwhile, economic stability can also be seen as the rise in a country's productive capacity measured by the comparison of the increase in gross national product over the year. The rise in capital stock, advancement in technology and enhancement in the literacy rate are some of key drivers of economic stability in a country.

The cardinal objectives of economic development policies in a given State are to seek economic stability through improved productivity, introducing political systems that are in tandem with the preferences of its citizens as accurately as possible, extension of rights to all social groups, creating enabling environment for institutions and entities to function strive optimally, in such a way that they will be able to handle technical and complex tasks. One of those tasks involves sourcing for finance through taxes and deploying the revenue generated for the provision of public goods and services (Bayly, 2008; Brautigam, 2002; Kenneth & Mark, 2010; Daron & James, 2012).

Economic stability is basically determined by how much revenue a state generated and channeled towards its development. The state government's inability to meet financial challenges caused by population stability and infrastructural decay as a result of dwindling oil prices and prevailing inflationary conditions in the country have forced some states in Nigeria to look inward through the formulation of different tax policy reforms, using social engineering as a mechanism to stimulate economic stability (Sunday, Uniamikogbo, Erah, & Aggreh, 2020; Oshemi & Otusanya, 2022).

Economic stability is explained as a constant increment in the production capacity of a country (as measured by reviewing the current year's gross national product to the previous year's), as well as an increment in per capita national output, measured by shifting the country's production possibility frontier outwards (Salami, Apelogun, Omidiya & Ojoye, 2015). The state government's role in attaining economic stability for both urban and rural states in Nigeria is critical, and tax revenue, as an instrument of fiscal policy, can be a beneficial tool used by the government in stimulating economic stability (Edewusi & Ajayi, 2019). The relationship between tax revenue and economic stability is a contested subject as taxation, a major component of tax revenue, has a significant impact on the economy, while firms and individual decisions are also affected by tax (Mdanat, Shotar, Samawi, Muloot, Arabiyat & Alzyadat, 2018). Irrespective of the revenue reported by the state government for many years now, the revenue has been inadequate in meeting its financial and social obligations in the provisions and maintenance of public goods, which is necessary for the enhancement of economic stability (Adefolake & Omodero, 2022).

The economy of a nation is a very important part of that nation. Salami, et al. (2015) viewed economic stability as a persistent increase in the net national product over a given time period. Peter and Adesina (2015) observed that an increase in capital stock, literacy level and level of technology is very crucial in improving economic stability of a state. They believe that certain economic determinants will showcase the dimension of the economy and an improved understanding of the economy. Some of the economic determinants/indicators include Gross Domestic Product (GDP), Gross National Product (GNP) and Per

Capita Income. Based on this perspective, economic stability can be defined conceptually as a gradual upswing in national revenue or output as a direct consequence of the government's deliberate manipulation of economic indicators through fiscal or monetary policy measures (Etim, Nsima, Austin, Samuel, & Anselem, 2021).

2.2 Empirical Review

Sokoh (2023) examined tax revenue (IGR) in Delta State as a tool for infrastructural development. To analyze the impact of tax revenue on infrastructural development in Delta State, the Ordinary Least Squares was applied on the secondary data obtained from publishing materials from Delta State Ministry of Finance covering the period from 2008 to 2018. The results indicated that the tax revenue has an insignificant impact on government expenditure on health while internally generally revenue by the Delta State Government has a significant impact on government expenditure on education infrastructure. Based on the findings, the study recommended that the government should increase the budgetary provision on health to at least 40 percent of the tax revenue.

Abdulwahab and David (2023) examine the effects of tax revenue on the economic stability of Nigeria for the period of 1998 to 2021. Specifically, the study evaluated the influence of petroleum profit tax, company income tax, custom and excise duty, value added tax and educational tax on economic stability in Nigeria. Secondary data sourced from Central Bank of Nigerian statistical bulletin was employed. Ex-post facto and correlational research design was adopted and fixed effects regression model was used to analyze petroleum profit tax, company income tax, custom and excise duty, value added tax and education tax on gross domestic product (economic stability). The results indicated that petroleum profit tax, custom and excise duty, value added tax and education tax has a statistically positive and significant effect on gross domestic product (economic stability) in Nigeria while company income tax has a negative and significant effect on gross domestic product (economic stability) in Nigeria. The study recommended that tax authorities should venture to support companies to pay tax in other to enhance the stability of Nigerian economy.

Oshemi and Otusanya (2022) investigated the impact of tax revenue volatility on Nigeria's economic stability. With the employment of an ex-post facto research design, secondary data obtained National Bureau of Statistics, Central Bank of Nigeria Statistical Bulletin, and World Development Indicators for the period from 1981 to 2020, which gives forty (40) observations, were analyzed using Pearson correlation and OLS for long run estimates between all variables. Results showed that tax revenue volatility comprising of oil and non-oil tax revenue sources moderated by inflation rate, interest rate, exchange rate and crude oil price had a positive and significant relationship in the short run but a positive and insignificant relationship in the long run on economic stability in Nigeria. It concluded that macro-economic determinants such as inflation, effective exchange rate, interest rate and prices of crude oil contribute to the fluctuations in total tax revenue. The study then recommended that government should amend tax laws and policies so as to ensure adequate tax revenue generation to cushion the effects of potential shocks.

Odu (2022) investigated the effect of Value-added Tax (VAT) on revenue generation and economic stability in Nigeria. It focused on examining the effect of VAT on Gross Domestic Product (GDP) and the total revenue generated in Nigeria for the period (1994-2018). Time series data were generated to run the regression for VAT on total tax revenue and GDP. While vector error correction and auto-regression models were used to analyze the data the study reveals that VAT has a significant effect on total tax revenue the study also shows that VAT has a significant and negative effect on GDP. The study then recommends that government should critically evaluate the process of VAT collection and improve transparency to ensure that economic units can join hands with the efforts of tax authorities in the country.

Adefolake and Omodero (2022) assessed the effects of tax revenue on the economic stability of Nigeria for the period spanning from 2000 to 2021. The study specifically evaluated the influence of hydrocarbon tax, corporation income tax and Value Added Tax on Nigeria’s economic stability. A time series data sourced from CBN statistical bulletin and Federal Inland Revenue Service published reports were employed. Ex-post facto research design was adopted and data collected were analyzed and tested using the Vector Error Correction Model. A Johansen co-integration test was carried out and it revealed a long-run relationship among the variables. The findings showed that PPT and VAT have positive and significant effects on GDP while CIT has a negative and significant effect on GDP. It recommended that trainings and workshops should be organized by government tax agencies to the Nigerian public and companies on the importance and benefits of tax revenue to the economy.

Edori (2022) examined the impact of tax revenue on Nigeria’s economic stability for the period from 2008 to 2017. Company Income Tax, Value Added Tax and Petroleum Profit Tax were used as referents for tax revenue while Gross Domestic Product was used as the proxy for economic stability. Exploratory design and ex-post fact design were adopted and data was secondary data sourced from the CBN statistical bulletin. Ordinary least squared technique and the Granger Causality Test were applied in estimation of the variables in the model. The results revealed that positive but insignificant relationship exist between the variables under study. The study then recommended that Nigerian government should properly and prudently utilize tax revenue for the provision of needed social amenities and infrastructure to enhance economic stability.

Kingsanjo (2019) examined the impact of tax revenue (IGR) on economic output in Kwara State from 1988 to 2017. The secondary data were generated and were subsequently analyzed using Autoregressive Distributive Lag model (ARDL) and Vector Autoregressive (VAR). The ARDL test for co-integration at the levels of variables was carried out by employing the Bound test within the framework of the estimated ARDL model. Based on the first model, all the variables were not statistically significant in determining the output level in the state. Also, the results of the second model showed that inflation rate, interest rate and even gap (deficit) have negative impact on output. The study then recommended that the state government should ensure that more funds are being expended on developmental project rather than stomach infrastructure added with adequate and properly monitoring in order to achieve inclusive economic stability of Kwara State, Nigeria.

Andrew (2019) determined the effect of tax revenue on infrastructure stability in Lagos State. Secondary data was used and the date was generated from the State and Local Government Programmed (SLGP) Consultants' Report 320 from the Planning and Budgeting website of Lagos State Ministry for the period of 1996 to 2015. The Pearson correlation analysis and regression analysis were used to evaluate the relationship between the revenue generated internally and the stability of infrastructure using SPSS. In general, the finding showed that there is a substantial positive relationship between tax revenue and infrastructural stability in Lagos State. The results also revealed that taxes, which are a component of income generated internally, do not have a major effect on the stability of Lagos State's infrastructure whereas permits, fines, and fees (administrative tax) have a significant effect on Lagos State's Infrastructure Stability.

2.3 Theoretical Framework

This study is anchored on the theory of fiscal decentralization which was introduced by the German-born American economist, Richard Musgrave in 1959 (Senzak & Gbegi, 2021). However, the theory of fiscal federalism was first propounded in Oates (1972). Fiscal decentralization refers to the degree of independent decisionmaking power in the provision of public services at different levels of government. The concept is on a continuous spectrum rather than being dichotomously centralized or decentralized. Depending on the degree of fiscal decision-making at the sub-national level, it may have three different names: deconcentration, delegation, and devolution (Bird and Vaillancourt, 1998). This theory holds that sub-national governments, specifically state governments, will be in a better position to render welfare services to their people and make them participate in the decisions that affects them if fiscal powers are completely transferred to them by the central government (Bahl, 1999).The theory of fiscal decentralization assumes That: a federal system of government can be efficient and effective at solving economic problems of governments, such as equality in distribution of income, efficient and effective allocation of resources, and economic stability, Nationally bounded public goods are more efficiently provided by the national government, such as foreign policy, defense, immigration and international trade, Based on the principle of fiscal equivalence, the geographic boundaries of the diverse range of local public goods should align (as far as possible) with political boundaries of the second-tier governments (states) and the third-tier governments (local governments), and The assignment of responsibility for the various types of service delivery must be transparent and clearly understood and agreed by all parties (Slavinskaite, 2015).

Decentralization has different meaning and uses. Adamolekun, Olowu and Laleye (2004) grouped decentralization into four, the first the authors called "administrative decentralization" is referred to as decentralization. The second was referred to as devolution of power. The third was called delegation of authority and the fourth which is the final is otherwise known as fiscal decentralization which is the heart of the relationship between the central government and the sub-national government units commonly known as the inter-governmental relations. The main thing about decentralization is the transfer of power and this could be a variety of formal institutions or non-formal organization (Rondinelli, 1981).

The relevance of the fiscal decentralization theory to this study is based on the revenue assignment and revenue sharing approaches. Revenue assignment sources are assigned to the state government from which they can mobilize resources and are controlled by them. There are many different sources from which the state governments can generate funds internally, but regrettably they go cap in hands to the federal government to beg, for money.

3.0 METHODOLOGY

This study employed an *ex-post facto* design due to the nature of the variables involved, which can only be estimated through the collection of secondary data. The population of the study consists of staffs of the Office of state board of internal revenue service (SBIR) Yola office Adamawa state which is handled with the responsibility of administering and collecting taxes within their fiscal jurisdiction for the Adamawa state government. The total staff of the Board is 187 headed by the Executive Chairman who is the Chief executive and the Accounting Officer. The sampling technique employed in this study will be simple random sampling, a non-probability sampling method. This approach guarantees that each staff member within the ministry has an equal opportunity to be selected for inclusion in the sample. The study utilizes secondary data collection method**.** The study employed the multiple linear regression model which was stated as follows:

$Y = \beta 0 + \beta 1x1 + \beta 2x2 + \beta 3x3 + \beta 4x4 + \varepsilon$……………   . . Equ (1)

Where;

Y = Dependent variable (economic stability)

β0 = Constant

β1, …, β4 = Coefficient of the independent variables

x1, …, x4 = Independent variables (PAYE, WHT, DAT, and ADT)

Ɛ = Stochastic error term

The explicit representation of the base line model as specified by the researcher for the purpose of determining the impact of tax revenue on economic stability in Adamawa State, Nigeria is stated as follows:

$GDP = \propto + \beta 1PAYE + \beta 2WHT + \beta 3DAT + \beta 4ADT + \varepsilon$ Equ (2)

Where,

GDP = Gross Domestic Product (dependent variable)

PAYE = Pay AS You Earn (independent variable)

WHT = Withholding Tax (independent variable)

DAT =Direct Assessment Tax (independent variable)

ADF = Administrative fee (independent variable)

1 . . β4 = Slopes of coefficient of the explanatory variables

= constant

∝

ε = stochastic error term.

4.0 Result and discussion

This section presents an in-depth analysis of the effect of Tax revenue (IGR) on the economic stability of Adamawa State. Building upon the theoretical framework and empirical evidence discussed in previous chapters, this section aims to examine the nature and extent of the relationship between various revenue components such as Company Income Tax (CIT), Withholding Tax (WHT), Direct Assessment Tax (DAT), and Administrative Tax (ADT) and the overall economic performance, measured by Gross Domestic Product (GDP).

Utilizing econometric models and statistical tests, this chapter explores both short-term and long-term impacts of IGR on economic stability, highlighting the significance, direction, and stability of these relationships. The findings are crucial for understanding how revenue mobilization influences development outcomes and for informing policy measures geared towards sustainable fiscal management. Through this analysis, we seek to provide comprehensive insights into the role of tax revenue as a vital driver of economic progress in Adamawa State.

It is expected that the independent variables used in this study can determine the behavior of the dependent variable. Based on this expectation, the Granger causality is conducted among the variables to actually see the extent the independent variables can influence the behavior of economic stability Adamawa State. The null hypothesis is that one variable of interest does not granger cause the other and the hypothesis cannot be rejected if the probability value of the F- Statistic is not more than 10%. The result of the granger causality test is presented in Table 1

Table 1: Granger Causality Test Results

IGR indicator:	F-Statist	Prob.
Causality between IGR Indicators and GDP		
CIT does not Granger Cause GDP	4.7256	0.0037
GDP does not Granger Cause CIT	2.0126	0.0353
WHT does not Granger Cause GDP	8.4309	0.0008
GDP does not Granger Cause WHT	1.2373	0.1750

DAT does not Granger Cause GDP	2.7297	0.0684
GDP does not Granger Cause DAT	4.7453	0.0035
ADT does not Granger Cause GDP	3.0417	0.0493
GDP does not Granger Cause ADT	3.3069	0.0338

Source: Extracted from E-Views 12 Output 2025

The Granger Causality test results in Table 1 reveals that the null hypotheses for tax revenue indicators in the determination of economic stability reaction cannot be accepted as the probability values of F-Statistics are less than 10%. This implies that tax revenue indicators can determine the behaviour of economic stability in Adamawa State.

Table 2: Error Correction Model of Long Run and Short Run effect of Pay as You Earn on Gross Domestic Product

Dependent Variable: D (GFCF); Selected Model: ARDL (3, 3, 0, 4, 0, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	5.5620	0.8146	5.1804	0.0000***
D(GDP(-1))	0.5432	0.1460	1.6347	0.0142**
D(GDP(-2))	0.3347	0.0431	2.0564	0.0047***
D(PAYE)	-0.0766	0.0138	-2.6349	0.0012***
D(PAYE(-1))	0.1011	0.0136	3.2845	0.0001***
D(PAYE(-2))	0.0555	0.0129	1.8621	0.0076***
EC(-1)	-1.0344	0.2186	-5.3878	0.0000***
R-squared	0.7085	Akaike info criterion		1.0312
Adjusted R-squared	0.6425	Durbin-Watson stat		1.3576
F-statistic	11.2448	Prob(F-statistic)		0.0000

Source: Extracted from E-Views 12 Output 2025

The estimated error correction parameter [EC (-1)] in Table 2, as expected, is negative (-1.0344) and statistically significant at 1% and 5% level. However, the absolute value is more than the expected limit of

1, suggesting that the Pay as You Earn model is explosive, and convergence is unrealistic. This is an indication that the Pay as You Earn is unsustainable.

Table 3: Error Correction Model of Long Run and Short Run Effect of Withholding Tax on Gross Domestic Product

Dependent Variable: D(GDP); Selected Model: ARDL (4, 1, 1, 1, 2, 3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.8973	0.1643	4.7223	0.0000***
D(GDP(-1))	1.3294	0.2206	3.4588	0.0002***
D(GDP(-2))	1.0297	0.1366	3.7754	0.0001***
D(GDP(-3))	0.5740	0.1613	2.9342	0.0006***
D(WHT)	-0.2022	0.0559	-4.3065	0.0000***
EC(-1)	-2.1967	0.355	-6.3406	0.0000***
R-squared	0.7627	Akaike info criterion		1.6984
Adjusted R-squared	0.3017	Durbin-Watson stat		1.8251
F-statistic	13.1398	Prob (F-statistic)		0.0000

Source: Extracted from E-Views 12 Output 2025

The coefficient of the error correction term [EC (-1)] in Table 3 is -2.1967. As expected, it is negative and statistically significant, but the absolute value of the coefficient is greater than 1, meaning that convergence is illusive. This further validates the negative and significant long run response of economic stability peroxided by Gross Domestic Product.

The findings of this study, effect of tax revenue on economic stability in Adamawa State, from the various models and hypothesis tests provide insightful evidence regarding the relationships between tax revenue, taxes, and economic stability in Adamawa State, aligning with the research aims.

Firstly, the Granger causality results indicate a significant bidirectional relationship between tax revenue indicators specifically CIT, WHT and GDP. The low p-values (all below 0.05) for CIT (p=0.0037 and 0.0353), WHT (p=0.0008), suggest that these revenue sources significantly influence economic stability, this is in line with the previous studies such as Tyoakosu & Awuhie (2017) who examined Personal Income Tax and the Performance of Tax revenue in Benue State – Nigeria and the results showed that pay-as-you-earn has significant positive contribution to tax revenue in Benue state. Also, the studies of Mbah & Onuora (2018) on the effect of tax revenue on infrastructural development of South East States of Nigeria, and Omodero, Ekwe & Ihendinihu (2018) on the Impact of Tax revenue on Economic Development in Nigeria revealed that the impact of IGR (PAYE inclusive) on economic development in Nigeria is robust and positively significant. This confirms that tax revenue plays a crucial role in shaping economic dynamics, addressing the first aim of examining their relationship.

Regarding the impact of pay-as-you-earn (PAYE) on economic stability, the ARDL model's results reveal a negative and significant short-term effect, with the coefficient for D(PAYE) at -0.0766 (p=0.0012). The significant lagged effects further imply that while current PAYE contributions might temporarily dampen stability, their influence in subsequent periods could be more complex, perhaps reflecting transitional or adjustment processes. However, the long-term sustainability of PAYE as a revenue source appears questionable, supported by the error correction term's absolute value exceeding 1 (-1.0344), indicating potential instability or explosive behavior in the model. This raises concerns about the long-term effectiveness of PAYE in fostering sustained economic stability, which is central to the second aim.

The analysis of withholding tax (WHT) shows a significant negative short-term impact on GDP, with a coefficient of -0.2022 (p=0.0000), and a similarly negative and significant error correction term (-2.1967). The magnitude exceeding 1 suggests that WHT's effect may be overly aggressive or unsustainable, implying that reliance on withholding tax could be detrimental to long-term stability. The finding is in line with the findings of Imoh (2020) who studied the Effect of Tax revenue on Revenue Stability of Lagos State found that Tax revenue from withholding tax does not have a significant relationship with Economic stability in Lagos state. Thereby addressing the third aim related to infrastructural and overall stability.

In summary, the results collectively suggest that tax revenue sources, including CIT, PAYE, and WHT are significant determinants of economic stability in Adamawa State. However, specific revenue measures like PAYE and WHT might have short-term benefits but pose challenges for long-term sustainability, as indicated by the explosive behavior implied by the error correction terms. Therefore, while tax revenue is crucial for stability and infrastructural development, careful policy considerations are needed to ensure these revenue streams contribute to sustainable economic and infrastructural progress.

5.0 CONCLUSION AND RECOMMENDATIONS

This comprehensive study investigated the relationship between tax revenue (IGR) and economic stability within Adamawa State, Nigeria. Using advanced econometric models, including Granger causality tests and autoregressive distributed lag (ARDL) models, the research identified a significant bidirectional relationship between key revenue sources—namely, Company Income Tax (CIT), Withholding Tax (WHT) and gross domestic product (GDP). These findings confirm that IGR is a critical driver of the state's economic performance, influencing and being influenced by overall economic activity.

The analysis of short-term effects revealed that measures tend to exert negative or insignificant impacts on GDP, suggesting that immediate reliance on these revenue streams might not boost economic stability instantaneously. More importantly, the long-term models demonstrated that the behavior of these revenue sources is unstable and potentially unsustainable. This is evidenced by the error correction coefficients exceeding the absolute value of one, a sign of explosive tendencies in the models that threaten the stability of the revenue-stability relationship over time. Such findings imply that over-reliance on specific revenue sources without structural adjustments could undermine ongoing economic and infrastructural development, potentially leading to fiscal instability.

The ARDL model indicates that increases in PAYE revenue are associated with decreases in GDP during the immediate period, which might reflect the dampening effect of higher payroll taxes on disposable income, consumer spending, or investment activities. Furthermore, the long-term analysis exposes potential instability, as the error correction term associated with PAYE exceeds the value of one in magnitude, an indicator that the model may be experiencing explosive tendencies. This points to the possibility that over-reliance on PAYE as a revenue source could undermine sustainable stability, possibly due to its regressive nature or administrative challenges in tax collection. The negative impact suggests that increases in PAYE revenue do not straightforwardly translate into economic expansion within the short run, and the long-term effects raise concerns about its role in fostering stable and continuous economic development.

Given the significant bidirectional relationship between tax revenue (IGR) and economic stability in Adamawa State, it is crucial for policymakers to strengthen revenue collection systems to sustain and stimulate economic development. Diversifying revenue sources beyond traditional taxes such as PAYE, CIT, WHT, DAT, and ADT can mitigate overdependence on any single stream and reduce vulnerabilities associated with fluctuations in specific revenue types. Recognizing that PAYE has a negative impact on short-term stability suggests the need to review payroll tax policies to prevent suppressing disposable income and consumer spending, which are vital drivers of economic activity. Overall, a strategic approach focused on expanding and stabilizing IGR, coupled with prudent fiscal management, will support sustainable infrastructural development and foster resilient economic stability in Adamawa State.

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