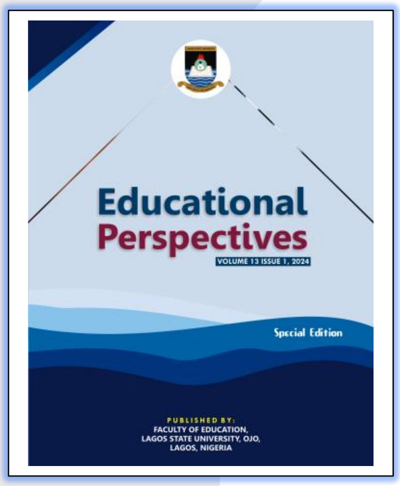

Effect of Tax Reforms on Revenue Performance of Kwara State Internal Revenue Service

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KEYWORDS:

Tax reforms, Internally Generated Revenue, Performance, Taxation, Kwara Sate Internal Revenue Service.

WORD COUNT:
216

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ABSTRACT

This study examined the effect of tax reforms on revenue performance of Kwara State Internal Revenue Service, for the period, January 2018 to November 2022, using three cointegrating regression techniques: Fully Modified Least Squares (FMOLS), Dynamic Least Squares (DOLS), and Canonical Cointegrating Regression (CCR)). In line with ex-post facto research design, monthly time series data were obtained from secondary source, that is, the annual financial statements of the Kwara State Internal Revenue Service. The study focused on tax revenues from corporate entities, Ministries, Departments and Agencies (MDAs), and tertiary educational institutions in Kwara State, as explanatory variables while the total internally generated revenue of Kwara State Internal Revenue Service was the dependent variable. Empirically, the study indicates that tax revenues from corporate entities and tertiary educational institutions had positive and significant effects on revenue performance of Kwara State Internal Revenue Service. Also, tax revenue from MDAs had positive but non-significant effect on revenue performance of Kwara State Internal Revenue Service. It can be concluded that tax reforms, evidenced by tax revenues from corporate entities and tertiary educational institutions, significantly enhanced revenue performance of Kwara State Internal Revenue Service. The study recommends the diversification of revenue sources in Kwara State through various tax reforms geared towards expanding the State revenue generation in both short and long runs.

HOW TO CITE

Tajudeen I.A, Gbenga F.B, Sa'adatu I.K & Hamzat K.M. (2024). Effect of Tax Reforms on Revenue Performance of Kwara State Internal Revenue Service. *Educational Perspectives*, *13*(1), 126-138.

Introduction

Tax revenue mobilization matter in developing countries has comprehensive and renewed interest of scholars. There is a growing awareness that domestic tax revenue in developing countries must be the primary financing source for development, with foreign aid playing essentially a supporting role (Fossat & Bua, 2013). The 2008 global financial and economic crisis has shown the need to pay more attention to domestic resource mobilization because the crisis demonstrated the volatility and uncertainty that surround external sources of development finance (United Nations Economic Commission for Africa [UNECA], 2010). The central concern is related to the need to increase sustainable domestic resource mobilization. Indeed, several countries are still facing the fundamental need of mobilizing more resources from their own tax bases (International Monetary Fund [IMF], 2017). IMF (2017) affirmed that one of the important policies upon which most economists agree is that developing nations must increasingly mobilize their own internal resources to support economic growth. Fossat and Bua (2013) have demonstrated that raising domestic revenue is the most feasible way to achieve fiscal sustainability.

The UNECA (2010) indicated that the achievement of the Millennium Development Goals (MDGS) by low-income countries requires increasing tax revenue up to 4% of Gross Domestic Product (GDP). Revenue mobilization is of high significance for developing countries as they have to finance their development plans and weak revenue mobilization is the source reason of fiscal imbalances in several countries. Tax reforms are deliberate and continuous actions by government and its agencies to alter the existing tax laws and policies to positively impact on the tax administration and collection process with minimal cost. Prior to tax reforms, tax administration reflected inefficiencies in the tax administration and collection system, complex legislations and apathy on the phase of those backyard the tax nets (Ogbodo & Mehara, 2021). The divergence of theoretical views on the link between tax reforms and productiveness is manifested in empirical literature. A number of tax reforms have been carried out in Nigeria over the years. These reforms include establishment of Federal Inland Revenue Service (FIRS) in 1992 through the Finance (Miscellaneous Taxation Provisions) Act No. 3 and Decree No.104.

With the passage of the FIRS (Establishment) Act, the FIRS was granted financial and administrative autonomy from civil service bureaucracy in terms of funding, personnel and material resource management (FIRS, 2014). Other prominent tax reforms include the introduction of Value Added Tax (VAT) in 1992 which was prompted by the recommendation of the Sylvester led study group on indirect taxation, imposition of 10% and 2.5% levy and now 7.5% (Finance Act, 2020) on banks' excess profits and on building and construction companies respectively (Olajide & Associates, 2013).

In Nigeria and Kwara State in particular, the impact of tax revenue has not been promising, thus expectations of government are being cut short. Corruption, evasion, avoidance and tax haven indicators are strongly associated with low revenue (Attali et al., 2008) and indeed, corruption functions like a tax itself. According to Adegbite and Fakile (2011), the more citizens lack knowledge or education about taxation in the country, the greater the desire and opportunities for tax evasion, avoidance and non-compliance with relevant tax laws. Despite the various reforms aimed at improving tax revenue generation, Nigeria has continued to experience unmitigated delinquency through widespread tax evasion and avoidance. These activities are considered as sabotaging the economy and are readily presented as reasons for slow or none development of the country. There are also concerns that the challenges that confront the Federal Inland Revenue Service (FIRS) are similar with the challenges of Kwara State Internal Revenue Service (KW-IRS) with regard to revenue generation and many administrations tried to make some reforms that will help them improve in the area of revenue collections.

The reforms propagated by the Muritala in 2015 (Kwara State Internal Revenue Service KW-IRS) tax administration in Kwara State received commendations from tax professionals as well as criticisms. These reforms included the introduction of an electronic payment, widening of the tax bracket to include individuals and businesses in the informal sector, introduction of a convenient, pocket-friendly and innovative daily tax payment plan called 'Pay Small-Small" and closure of all revenue accounts previously opened and arbitrarily maintained by Ministries, Departments and Agencies (MDAs) in different banks across the state (Ogunshola, 2016). It is in view of the above that this study seeks to determine the effect of tax reforms on performance of Kwara State Internal Revenue Service.

In Kwara State, the 2015 annual Statistical Bulletin of the Kwara State Internal Revenue Service has indicated that tax revenue increases annually which may be due to various tax reforms. The performance of taxation in propelling the revenue base of Government is immensely important to national development (Ogbodo & Mehara, 2021). In contrast with other sources of revenue, tax revenues are relatively predictable, thus enabling governments to plan with a greater degree of certainty than when relying majorly on natural resources (Herbert et al., 2019).

Studies have shown that tax reforms are integral components of macroeconomic of any government. Although, many authors worked on the tax reforms in Nigeria which include Chika et al., 2022; Okeke & Saluadeen, 2021; Ogbodo & Mehara, 2021; Gbeke & Nkak, 2021; Emeneka, 2021; Ezejiofor et al., 2021; Udezo & Onuora, 2021; Olaoye & Ayeni, 2019; Chijioke et al., 2018; Ebi et al., 2017; Nwaorgu et al., 2016; Jelilov et al., 2016; Ebieri et al., 2016; Asaolu et al., 2015, etc. However, some of the studies focused on tax reform on Nigerian economy and other focused on economically advanced states in Nigeria like Lagos State. This study was triggered by the need to fill the gap in literature by examining the effect of tax reforms on performance of Kwara State Internal Revenue Service.
The main objective of this study was to determine the effect of tax reforms on performance of Kwara State Internal Revenue Service. The specific objectives are to:

i. examine the impact of tax reforms of Internally Generated Revenue (IGR) of corporate entities on revenue performance in Kwara State Internal Revenue;
ii. assess the effect of tax reforms of IGR of Ministries Department and Agencies on revenue performance in Kwara State Internal Revenue; and
iii. determine the effect of tax reforms of IGR of tertiary institution on revenue performance in Kwara State Internal Revenue.

Literature Review

Conceptual Review

Concept of Taxation

According to Nzotta (2017), a tax is a compulsory levy contribution made by the citizens to the state or even an alien, subject to the jurisdiction of the government, for reasons of residence or property and this contribution is for general common use. Secondly, a tax imposes a general obligation on the taxpayer. This means the tax payer has a duty to pay the tax, if he is liable and should not in any circumstances evade it. Thirdly, there is the presumption that the contribution to the public revenue made by the taxpayer may not be equivalent to the benefit received from the public sector. Finally, a tax is not levied on a citizen by government because it has rendered specific services to him or his family. In a similar vein, Appah (2014) defined taxation as a form of levy, imposed on all residents living in, as well as non-residents doing business, within a tax jurisdiction. It is a civic and patriotic responsibility of citizens, to pay taxes imposed, which also come to the government as income or revenue yielding device to finance the provisions of socio-economic and infrastructural amenities and also to enhance industrial efficiency. Although, there are various taxes collected by the government such as company income tax, personal income tax, petroleum profit tax, value added tax, capital gain tax, custom and excise duties, education tax as well as other levies (Aregbeyen & Fasanya, 2013).

Tax is a form of financial charge or other levy imposed upon a taxpayer, an individual or legal entity, by a state or the functional equivalent of a state such that failure to pay is punishable by law. Taxes may be direct tax or indirect tax, and may be paid in money or as a labour equivalent (often but not always unpaid labour) (Ifurueze & Ekezie, 2020). Azubike (2019) notes that a tax is a liability imposed upon the tax payers who may be individuals, groups of individuals or other legal entities. It is a liability to pay an amount on account of the fact that the tax payers have income of minimum amount from certain specified source or that they own certain tangible or intangible property, or that they carry on certain economic activities, which have been chosen to be subject to taxation. Ebiringa & Emeh, (2012) see tax as a compulsory levy imposed on a subject or upon his property by the government to generate the needed revenue for the provision of basic amenities and creation of jobs.

The Finance Act 2022 as updated on tax matters from PWC, The Senate and the House of Representatives passed the 2022 Finance Bill on Wednesday 28 December, 2022. The Bill seeks to amend the following laws: Capital Gains Tax Act (CGTA), Companies Income Tax Act (CITA), Customs, Excise Tariff, etc. (Consolidation) Act, Personal Income Tax Act (PITA), Petroleum Profits Tax Act (PPTA), Stamp Duties Act (SDA), Value Added Tax Act (VATA), Corrupt Practices and Other Related Offences Act and Public Procurement Act. Some of the key changes in the bill, which after its assent by the president becomes the Finance Act 2022.

i. Gains on digital assets including cryptocurrency to be specifically chargeable to tax under the capital gains tax act at the rate of 10%.
ii. Capital losses on chargeable assets (including shares) to be tax deductible against chargeable gains on the same class of asset. Currently, losses incurred on the disposal of any asset are not deductible for capital gains tax purposes.
iii. Income derived by a company from gaming, gambling, betting, or lottery business to be taxable under the Companies Income Tax Act.
iv. A company engaged in the commercial winning, capture, production and utilisation of gas will be entitled to a single 50% investment tax credit on its qualifying expenditure for that purpose.
v. Investment allowance of 10% applicable on qualifying expenditure incurred on plant and

equipment is to be repealed. This will however not affect such assets acquired on or before 31 December 2022;

vi. Proposed amendment to the sharing formula for revenue from Electronic Money Transfer from the current 15% for FG and 85% for States to 15% for Federal government, 50% for States and 35% for Local governments; among others.

Kwara State Internal Revenue Service Reform and Performance

To diversify and increase its revenue base, Kwara State Internal Revenue boarded an administration of tax and revenue generation reform by enacting the Kwara State Revenue Generation Law in 2015 to repel the old corruption enriched and ineffective Kwara Board of Internal Revenue. This new revenue generation law birthed Kwara Internal Revenue Service (KW-IRS) in 2015 during the administration of Governor Abdulfatai Ahmed. KW-IRS is the sole agency saddled with the responsibility of effective and effective tax administration and revenue generation in the state. The reform in tax administration contributes to the increase in state revenue generation from ₦7.2billion in 2015 to ₦30.07biilion in 2019 (National Bureau of Statistics, 2020). This moved Kwara State from 19th position on IGR collection in 2015 to 10th position in IGR ranking out of 36 states of the Federation. This is a Tax Authority for each state that is charged with the administration of the income tax law of the state finance (miscellaneous taxation provision) Amendment decree No. 3 of 1993 provided for the establishment of an operational arm known as the state internal revenue service. This board was originally established under section 27 of income tax management Act of 1961 (ITMA). It is the highest echelon of tax administration in Nigeria charged with the responsibility of promoting uniformity both in the application of PITD settle a dispute between a state in respect of double taxation arrangement and to advise the government arrangement and Republic of Nigeria on tax policy and administration matters. Taxes and levies collected by state include: Personal Income Tax (PAYE), Direct Tax (Self and Government) Assessment, With-holding Tax (Individual Only), Capital Gain Tax, Road Taxes, Stamp Duties (Instrument executed by individuals), Pools, gaining and Casino Taxes and Business Premises Registration and Revenue Levy.

Revenue performance refers to the efforts and outcome of revenue agencies in collecting revenue for the government. Revenue performance is the economy, efficiency and effectiveness of revenue collection activities (Udezo & Onuora, 2021). It can be seen as the ability of revenue agencies to attain its goals by using resources in an efficient and effective manner. The main factors contributing to an improved revenue performance are changes in tax legislation, tax administration and minimal tax evasion (Udezo & Onuora, 2021). Revenue performance in any country is dependent on fiscal adjustment. Asaolu et al. (2015) noted that the efficacy of any fiscal adjustment to accomplish fiscal obligations depends on the tax base or capacity relative to the expenditure requirements of the public sector. This fiscal position defining the ratio of capacity to requirements approximates the marginal benefits of public expenditures vis-a-vis marginal sacrifice of the citizenry. As a result, this study will measure revenue performance of Kwara State Internal Revenue Service with total internally generated revenue from 2018 to 2022.

Theoretical Review

This study is anchored on Optimal Tax Reform Theory. The theory originated from the foundational work of Ramsey (1927) and Mirrlees (1971). The standard theory of optimal taxation posits that a tax system should be chosen to maximize a social welfare function subject to a set of constraints. The literature on optimal taxation typically treats the social planner as a utilitarian: that is, the social welfare function is based on the utilities of individuals in the society (Udezo & Onuora, 2021). Under this theory, it is required that the best way to raise revenue is through taxing goods or factors with inelastic demand or supply, and that taxation relating to distribution and externalities or market failures should concentrate on identifying the source or origin of the problem. Thus, for distribution, we should look for the sources of inequality and taxation should be concentrated there (Oriakhi et al., 2014). Regarding externalities, an attempt should be made to tax or subsidize directly the good or activity that produces the externality (Animasaun, 2016). The optimal taxation approach according to them emphasizes the need to analyze the impact of tax reform and evaluate both its administrative costs and its effects on social welfare (Ndiaye, 2019; Oriakhi et al., 2014). The major problem of this approach is that it required substantial data which are difficult to source in developing countries (Udezo & Onuora, 2021). In addition, optimal taxation assumed the existence of perfect tax administration, which does not exist in Nigeria and several developing countries (Appah, 2014).

Empirical Review

There have been several studies concerning the effect or impact of tax reforms in Nigeria and outside Nigeria. For instance, Chika, et al., (2022) investigated the impact of tax reforms on economic growth of Nigeria. The study used estimated technique of both descriptive statistics and Ordinary least square (OLS) regression analysis method. The study revealed the existence of a positive significant impact of Value Added Tax (VAT), Companies Income Tax (CIT), and Petroleum Profit Tax (PPT) on Real Gross Domestic Product (RGDP) in Nigeria among other things. Therefore, the study established that there is a significant positive impact of tax reforms on Nigeria's economic growth. Udezo and Onuora (2021) investigated the effect of tax reforms on revenue performance in Nigeria using time series data from 1991 to 2018. Cointegration test and multiple regression model analysis was used. The regression result showed that reforms in VAT, Personal Income Tax (PIT) and PPT have significant positive effect on revenue performance. While reform in Company Income Tax (CIT) has positive but insignificant effect on revenue performance in Nigeria with data spanning from 1991-2018. Based on this, the study concluded that tax reforms have significant effect on revenue performance in Nigeria. Okeke and Saluadeen (2021) evaluated the 2007 Company Income Tax (CIT) reform with respect to improving the tax compliance behaviour of companies in Nigeria. Data for total annual company income tax paid and the total GDP for the respective years of the study were extracted from National Bureau of Statistics records. The study covers a period of twenty years (ten years, 1997-2006 before and ten years, 2008-2017 after the reform). The Wilcoxon Rank Sum Test was used as analysis tool. The study finds companies to be more complaint after the reform than before. Ogbodo and Mehara (2021) evaluated the effect of tax reforms on internally generated revenue in Nigeria using regression analysis. The study found that petroleum Profit Tax has no significant effect on internally generated revenues in Nigeria. Also, Value Added Tax (VAT) has a significant effect on internally generated revenues in Nigeria. Gbeke and Nkak (2021) used data covering from 1995 to 2019 to study Nigeria's tax revisions and economic growth. The study comes to the further conclusion that while VAT and PPT have a negative influence on economic growth, corporation income tax and customs and excise taxes have a beneficial impact on economic growth.

Emeneka (2021) investigated the impact of tax reforms on Nigeria's economic expansion. The ex-post research design was used, inferential statistics were used in the study, including Pearson correlation and the Ordinary Least Square (OLS) method. It was discovered that Personal Income Tax significantly decreased Nigeria's GDP per capita. Ezejiofor et al. (2021) determined the impact of Nigerian tax collection using correlation and OLS regression techniques. The study revealed that, customs and excise duties have a minimally positive impact on per capita income. The study also found a positive correlation between total tax revenue and unemployment and advised the government to allocate its social welfare programs so that tax payers directly benefit from them.

Olaoye and Ayeni (2019) examined price introduced tax and customs duties on revenue generation in Nigeria from 2000 to 2016. The study concluded that value-added tax and customs duties have no considerable effect on revenue era and there is no long-run relationship among value-added tax, customs responsibilities and revenue era in Nigeria for the duration of the study period.

Ndiaye (2019) assessed the effect of reforms on tax revenue performance in Senegal using various econometric methods based on OLS, instrumental variable two-stage least squares, and iteratively reweighted least squares, to determine whether reforms are important for increasing tax revenue. The findings show that, tax reforms, institutional reforms, and all reforms combined have contributed to significantly increase in tax revenue performance. Theobald, (2018) examined the impacts of tax administration on government revenue in Tanzania-case of Dares Salaam region using questionnaires administered to 85 targeted respondents to access the required information. Study revealed that, good tax design, effective tax policy and laws, tax administrative structure, tax collection methods, proper use of computerized system of maintaining taxpayer register, outsourcing revenue collections to private tax collectors, internal and external capacity building, intensive coordination with other entities and proper maintenance of taxpayer’s records are the main factors that enhance effective tax administration in Tanzania.

Chijioke et al. (2018) evaluated the impact of e-taxation on Nigeria’s revenue and economic growth from second quarter 2013 to fourth quarter 2016. Findings revealed that Federally Collected Revenue and Tax-to-GDP ratio significantly decreased after e-taxation was implemented. Also, tax revenue decreased after the implementation but the mean difference was not statistically significant. Nwaorgu et al. (2016) carried out a longitudinal assessment of tax reforms and national income in Nigeria using time series data from 1971 to 2014 using OLS regression method. The study found that tax reforms significantly improved national income and economic growth during the period of study, especially growth rates of VAT and PIT. Personal Income Tax (PIT) has a positive significant effect on the national income and economic growth, while that of VAT has a negative significant effect on growth of national income. The growth components of CIT and PPT are positive but not statistically significant. On the other hand, reforms in custom and excise duties were found to yield negative and statistically non-significant effect.

Ebieri et al. (2016) carried out an assessment of the impact of tax reforms on economic growth in Nigeria using OL regression technique. The study found that customs and excise duties, VAT, PIT and education tax have no statistically significant impact on economic growth. However, PPT and CIT have positive significant impact on economic growth in Nigeria. Ebi et al. (2017) examined tax reform and tax yield in Nigeria using time series data from 1981 to 2014. The results showed that the fact that tax reforms improve tax revenues. The analysis of tax reforms and tax yield in Nigeria shows that the coefficients of all the tax variables in both pre-reforms and post-reforms are positive during the period of the study.

Jelilov et al. (2016) examined the impact of tax reforms on economic growth of Nigeria from 1986 to 2012. Ordinary least square (OLS) regression technique was employed in analyzing the data. Results shows that tax reforms are positively and significantly related to economic growth and that tax reforms indeed causes economic growth in Nigeria.

Animasaun, (2016) investigated the relationship between tax administration and revenue generation from the perspective of Ogun State Internal Revenue Service. The study employed a survey research design and data were obtained using questionnaire administered to 70 staff of the Ogun State Internal Revenue Service. The collected data were analyzed by both descriptive and inferential statistics. The result revealed that, tax administration did not significantly relate with the amount of revenue generated. Asaolu et al. (2015) examined the impact of tax reforms on revenue generation in Lagos State of Nigeria between 1999 and 2012 using OLS regression technique. The study indicated that there was a long run relationship between the tax reforms and revenue generated in Lagos State; thus, the tax reforms had positive and significant effect on the revenue structure of the State.

Methodology

The scientific approach adopted in this research was ex-post facto research design, which is used in historical data to make decision. This is in view of the fact that the study entails the use of annual reports and financial statement of Kwara State internal revenue service. In carrying out this research, the data were sourced secondarily from annual report and financial statements of Kwara State Internal Revenue Service monthly data over the period of 5 years spanning from January, 2018 to December, 2022. In order to achieve the objective of the study, the researcher proxies tax reform with IGR of corporate entities, IGR of ministries department and agencies and IGR of tertiary institutions. While revenue performance was proxied with total revenue generated by Kwara State Internal Revenue Service from 2018-2022.

The model that was adopted in this study is that of Chika et al. (2022) in the study of the tax reforms and internally generated revenue in Nigeria. The model can be represented as in equation ():

$$IGR = f\ (\alpha + xCIT + xPPT + xVAT + u_t) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

This model for simplicity sake was presented in mathematical terms as depicted in equation (2):

$$TIGR_t = Ƀ_0 + Ƀ_1 CET_t + Ƀ_2 MDAs_t + Ƀ_3 TIS_t + u_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots. (2)$$

Where:

TIGR = Total Kwara State Internally Generated Revenue; CET = IGR in corporate entities; MDAs = IGR in ministries department and agencies (MDAs); TIS= IGR in tertiary institutions; $Ƀ_0$=intercept; $Ƀ_1, Ƀ_2\ and\ Ƀ_3$ = coefficient of estimates; μ - stochastic variable; and subscript t= time period, from January 2018 to December, 2022.

Results and Discussion

Descriptive Statistics

The data in this study were analyzed using descriptive statistics which involved calculating for the mean, median, maximum value, minimum value skewness, kurtosis, standard deviation, Jarque-Bera statistics and probability.

Table 1 contains the descriptive statistics of the variables.

Table 1: Descriptive Statistics

	TIGR	CET	MDAs	TIS
Mean	2.25E+09	8.52E+08	5.79E+08	9.72E+08
Median	2.21E+09	6.37E+08	4.09E+08	5.99E+08
Maximum	6.93E+09	6.18E+09	2.20E+09	5.99E+09
Minimum	5.92E+08	1.70E+08	79428727	32655670
Std. Dev.	1.09E+09	8.18E+08	5.09E+08	1.02E+09
Skewness	1.583319	5.002792	1.768120	2.439056
Kurtosis	7.576349	31.98450	5.251930	11.54315
Jarque-Bera	76.13598	2311.356	43.20812	237.9211
Probability	0.000000	0.000000	0.000000	0.000000
Observations	59	59	59	59

Source: Authors' computation using E-views 10, (2024).

Table 1 shows the mean for each of the variables, the total state collected revenue, reform in corporate entity (CET), reform in Ministries Department Agency (MDAs) and reform in Tertiary institutions (TIS) documented a mean value of 2.25, 8.52, 5.79, and 9.72 respectively within the study period of 2018 to 2022. The total state collected revenue, reform in corporate entity (CET), reform in Ministries Department Agency (MDAs) and reform in Tertiary institutions (TIS) documented a standard deviation which is less than their respective means value (1.09, 8.18, 5.09, 1.02) respectively. This implies that these variables documented slow growth and are not to widely disperse from their mean value within the period under review. This is also seen in the margins between their respective maximum and minimum values. The implication is that, the data of each variable of the interest were close to each other in term of generation.

Jarque-Bera statistics was employed to test the normality of the data used. It is important to state the null hypotheses states that the variables are not normally distributed. However, analysing from the Jarque-Bera statistic at 5% level of significance, the JB value for all the variables are higher and their respective corresponding probability values are greater than 0.05% level of significance. The result shows that all the variables are normally distributed and the variables are fit for the conducting further analysis.

Correlation Analysis

Table 2 presents the correlation matrix of the series.

Table 2: Correlation Matrix

Probability	TIGR	CET	MDAs	TIS
TIGR	1.000000			
CET	0.657024	1.000000		
	0.0000	-----		
MDAs	0.078391	-0.119035	1.000000	
	0.5551	0.3692	-----	
TIS	0.370607	-0.135218	0.083864	1.000000
	0.0039	0.3072	0.5277	-----

Source: Authors' computation using E-views 10, (2024).

Table 2 reveals that, there is a positive correlation between total Kwara State Internally Generated Revenue (IGR), reform in corporate entity (CET), reform in Ministries Department Agency (MDAs) and reform in Tertiary institutions (TIS), with specific values of 0.657024 for TIGR and CET, 0.078391 for IGR and MDAs and 0.370607 for TIGR and TIS. This result connotes that total Kwara State internally generated revenue moves in the same direction over the period covered with the adoption of reform. This implies that multicollinearity is not an issue in the model valuations, hence there is no problem of multicollinearity of data

Variance Inflation Factors

Table 3 contains the Variance Inflation Factors (VIFs) of the series.

Table 3: Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
CET	0.011251	2.169726	1.030890
MDAs	0.028690	2.359480	1.019209
TIS	0.007192	1.969442	1.023481

Source: Authors' computation using E-views 10, (2024).

This study performed a collinearity diagnostic test to see if there is multicolinearity problem. The results revealed that the VIF with a value of 1.03 for CET, 1.31 for MDAs, and 1.02 for TIS, were consistently smaller than the value of 10 suggested by Neter et al (1996) and Cassey and Anderson (1999). Since the VIF (Centred VIF) for any variable does not exceed the threshold of 10 (Gujarati & Porter, 2009), it can safely assert there is no problem of multicollinearity among the explanatory variables.

Unit Root Tests

Table 4 contains the results of the Augmented Dickey-Fuller test statistic and Phillips-Perron test.

Table 4: Augmented Dickey-Fuller Test and Phillips-Perron Test Statistics

	Augmented Dickey-Fuller Test			Phillips-Perron Test		
Variable	t-Statistic	Prob.	I(d)	Adj. t-Stat	0.0000	I(d)
TIGR	-6.117682	0.0000	I(0)	-6.092938	0.0000	I(0)
CET	-8.322774	0.0000	I(0)	-8.468770	0.0000	I(0)
MDAs	-4.229385	0.0014	I(0)	-4.095178	0.0020	I(0)
TIS	-6.141431	0.0000	I(0)	-6.221406	0.0000	I(0)

Source: Authors' computation using E-views 10, (2024).

The results of the ADF test show all the variables to be I(0) series. This mean that total kwara State internally generated revenue (IGR), reform in corporate entity (CET), reform in Ministries Department Agency (MDAs) and reform in Tertiary institutions (TIS). Overall, all the variables used in this study were stationary.

Regression Result

To determine the effect of tax reforms on revenue performance of Kwara State Internal Revenue Service, three cointegrating regressions (Fully Modified Least Squares (FMOLS), and Dynamic Ordinary Least Squares (DOLS), Canonical Cointegrating Regression (CCR) regression) were conducted and the results are displayed in Table 5.

Table 5: Regression Result

	Fully Modified Least Squares (FMOLS)		Dynamic Least Squares (DOLS)		Fully Modified Least Squares (FMOLS)	
	Dependent Variable: IGR					
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
CET	1.029958	0.0000	1.120150	0.0000	1.099538	0.0000
MDAs	0.181664	0.3482	0.178131	0.4261	0.187407	0.3588
TIS	0.574573	0.0000	0.862150	0.0000	0.634094	0.0000
C	7.16E+08	0.0009	3.30E+08	0.0422	5.99E+08	0.0245
R-squared	0.654218		0.808954		0.638286	
Adj. R-sq	0.635008		0.755639		0.618191	
Mean Dev.	2.25E+09		2.20E+09		2.25E+09	
S.D. Dev.	1.10E+09		1.06E+09		1.10E+09	

Source: Authors' computation using E-views 10, (2024).

Table 5 shows the cointegration result of the effect of tax reforms on revenue performance of Kwara State Internal Revenue Service. The result indicated by Fully Modified Least Squares (FMOLS), Dynamic Least Squares (DOLS) and Canonical Cointegrating Regression (CCR) reveal that tax reform of IGR in corporate entities (CET), tax reform of IGR in Ministries Department Agency (MDAs) and tax reform of IGR in Tertiary institutions (TIS) had positive and joint significant effects on revenue performance in Kwara State Internal Revenue. Likewise, R-squared (R^2), the, FMOLS, DOLS and CCR R^2 of the model are 0.65%, 0.80% and 63% respectively, shows that the explanatory variables jointly account for substantial variation in impact of tax reforms function in revenue performance of Kwara state Internal Revenue Service.

Conclusion and Recommendations

This study was carried out to investigate the effect of tax reforms on revenue performance of Kwara State Internal Revenue Service. The study specifically looked at the effect of tax reforms of IGR of corporate entities, tax reforms of IGR of ministries department and agencies and tax reforms of IGR of tertiary institution on revenue performance in Kwara State Internal Revenue. Data used for the study were collected on all the indicators for period 2018 to 2022. The result of Fully Modified Least Squares (FMOLS), Dynamic Ordinary Least Squares (DOLS), Canonical Cointegrating Regression (CCR) and Ordinary Least Squares (OLS) regression was used to analyse the data after carrying out some preliminary tests. The multiple regression results shows that Reform in corporate entity (CET) had a significant positive effect on revenue performance of Kwara State Internal Revenue Service. It further shows that a tax reform in IGR in Ministries Department Agency (MDAs) was found to have a positive but insignificant effect on revenue performance in Kwara State. Also, tax reform in IGR in Tertiary institutions (TIS) has significant positive effect on revenue performance of Kwara State Internal Revenue Service.

The study concluded that tax reforms enhanced revenue performance of Kwara Sate Internal Revenue Service. Based on the findings, the study recommends as follows: (i). Tax authority should maintain the tax reforms of IGR in corporate entities since it's contribute significantly to the total Kwara State internal revenue service since. (ii). Government should monitor the negative impact of tax reforms of IGR of ministries department and agencies since it contributes less to Kwara State Internal Revenue Service. (iii). There should be continuous review and tax reforms of IGR of tertiary institution to reflect the current realities of the modern economy since tax reform was found to have significant effect on revenue performance of Kwara State internal revenue service.

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