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A Comprehensive Review of Tax Policy Changes and Tax Revenue in Kenya

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Government revenue is crucial for fostering economic growth, especially in emerging economies where financial autonomy matters. Mobilising this revenue is key to achieving the United Nations Sustainable Development Goals (SDGs) focused on productivity and inclusive growth. This study analyses Kenya's tax revenue trends from 2001 to 2021, particularly the impact of tax policy reforms on the tax-to-GDP ratio. The findings reveal a significant increase in Kenya's tax revenue from 182,418 million shillings in 2001 to 1,692,662 million shillings in 2021, reflecting the effectiveness of tax reforms. It notes a shift towards direct taxes, which increased both in absolute terms and as a portion of total revenue, indicating improved compliance and administrative efficiency. Key reforms, such as the Tax Modernization Programme and the digital iTax system, enhanced revenue collection by improving compliance and tax base widening. While indirect taxes have traditionally dominated, the gap with direct taxes has narrowed, leading to a more balanced revenue structure.

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The study also highlights challenges, including political disruptions in 2007 and the economic effects of the COVID-19 pandemic in 2020, emphasising the need for resilient revenue strategies. Ultimately, the research concludes that continuous tax policy reform and improved administrative efficiency are essential for Kenya's fiscal sustainability and broader economic development goals.

Keywords: Tax revenue; tax policy; tax reforms; economic development.

1. INTRODUCTION

Government revenue is critical for boosting economic growth. Domestic government revenues in Africa are diminishing due to lower resource prices in resource-rich economies. Non-resource-rich economies have seen increased tax revenue and tax-to-GDP ratios. According to the African Development Bank, the Organisation for Economic Cooperation and Development, and the United Nations Development Programme (AFDB, OECD, UNDP), broadening tax bases has resulted in higher revenue yields (2016). Mobilising government revenue is crucial for achieving the United Nations Sustainable Development Goals (SDGs) of boosting productivity and inclusive growth. This is crucial for promoting financial autonomy in African economies. United Nations, [1].

The availability of economic resources for society is limited. Typically, a rise in government spending results in a decrease in private expenditures [2]. Implementing fiscal policies, such as raising taxes, can transfer resources from the private to the public sector. Governments employ several techniques to raise resources, including borrowing, receiving aid, printing money, and taxes. Taxation remains as a major source of government revenue Chaudhry et al., [3].

Governments in emerging countries attempt to promote and guide economic and social growth. Implementing appropriate tax policies can help mobilise resources more effectively Wawire, [4] With decreasing Official Development Assistance (ODA), aid-dependent countries require effective internal resource mobilisation. In recent decades, many developing countries have implemented reforms such as VAT to improve tax collection. Tax income is a measure of an economy's ability to pay government expenditures. However, most developing countries still have low levels of taxation.

The literature increasingly recognises that relying on external money for development is unsustainable. Not only is this source of finance unpredictable, but it also limits a country's policy flexibility, reduces its sense of ownership in the development process, and can lead to long-term debt sustainability issues [5]. Meanwhile, the issue of Domestic resource mobilisation (DRM) has recently garnered significant emphasis in development plans such as the Istanbul Program of Action (IPoA). The 2002 Monterrey Consensus on Financing for Development, Agenda 2063 of the African Union, and the Sustainable Development Goals (SDGs) African Union, [6], United Nations, [1]. Furthermore, there are numerous recommendations that domestic resource mobilisation can assist emerging countries in boosting economic growth and development. Taxation is regarded as essential in nation-building [7]. While its function in the economy is critical, it is the primary source of domestic revenue.

Kenya's fiscal indiscipline in the 1970s impaired budget and expenditure control. The public sector grew larger and more bureaucratic. During the 1970s, the government held shares in approximately 250 commercial businesses. The government was forced to pay the loans of significant state-owned firms due to their losses. Inefficiencies in the public sector posed a problem for government programs like free university education and healthcare. During the early 1980s, the government had balance of payment (BOP) issues, including a current account deficit, a budget deficit-GDP ratio of above 7%, and high inflation rates. During this period, International Financial Institutions (IFIs) implemented Structural Adjustment Programmes (SAPs) [8]. The government initially resisted abandoning the regulated system, but borrowing from outside eventually led to its approval and subsequent economic liberalisation.

Due to increasing pressure from IFIs, the government was forced to liberalise the economy (Were et al., 2006). Kenya's government initiated the Public Financial Management Reform (PFMR) plan in 2006 aimed at improving fiscal policy responsiveness, accountability, and transparency. Systemic reforms have been implemented in various areas, including external audit, budget development, revenue collection, public procurement, debt and guarantee, and

internal audit. To boost domestic revenue mobilisation, the Kenyan government established the Kenya Revenue Authority (KRA), which is responsible for assessing and collecting income as well as making subsequent adjustments to revenue and tax administration laws. Since its inception in 1995, KRA has established and modified numerous projects and Acts, including the Revenue Act, administrative policies, and Customs Act. Domestic revenue mobilisation is seen as a key weapon utilised by the Kenyan government to achieve its poverty reduction strategy and four prosperity agenda, as well as to create financial independence and prepare for the transition to middle-income status. Kenya's tax income (% GDP) has consistently been dropping, and it is less than the 20% minimum necessary by the (United Nations, [1] to meet the SDGs.

In recent years, the Kenyan government's ability to raise revenue through taxes has attracted greater interest. Tax income is the lifeblood of government spending, funding critical services such as infrastructure, education, and healthcare. Understanding how tax collection trends evolve in Kenya is critical for assessing the country's economic health and ability to invest in the future.

The low tax-to-GDP ratio is characteristic of most SSA countries. Despite their best efforts, many countries are unable to produce adequate income to finance their government deficits and meet their development needs. According to the (United Nations, [1], half of SSA nations generated 16.8% of GDP from tax revenue, which is less than the UN benchmark of 20% to meet the Millennium Development Goals. Kenya's 2010 tax-to-GDP ratio was 17.7%. Although greater than neighbouring nations like Ethiopia (12.2%) and Rwanda (14.1%), it still falls short of the UN standard aim. This means that tax revenue varies by country and has various economic characteristics. This distinction is linked to characteristics that are specific to each country due to socioeconomic and political circumstances. Furthermore, most African countries, including Kenya, have major hard-to-tax sectors, such as small businesses and farms, as well as a high proportion of informal activity.

This study will conduct a complete examination of Kenya's tax landscape. It will examine tax revenue trends for a 20-year period (2001-2021), seeking to discover patterns of increase, stagnation, or decline. It will also look at the tax-to-GDP ratio, which is an important indicator that shows how much of a country's economic output is collected in taxes. This ratio allows us to measure the efficiency of Kenya's tax collection system and its contribution to the national economy.

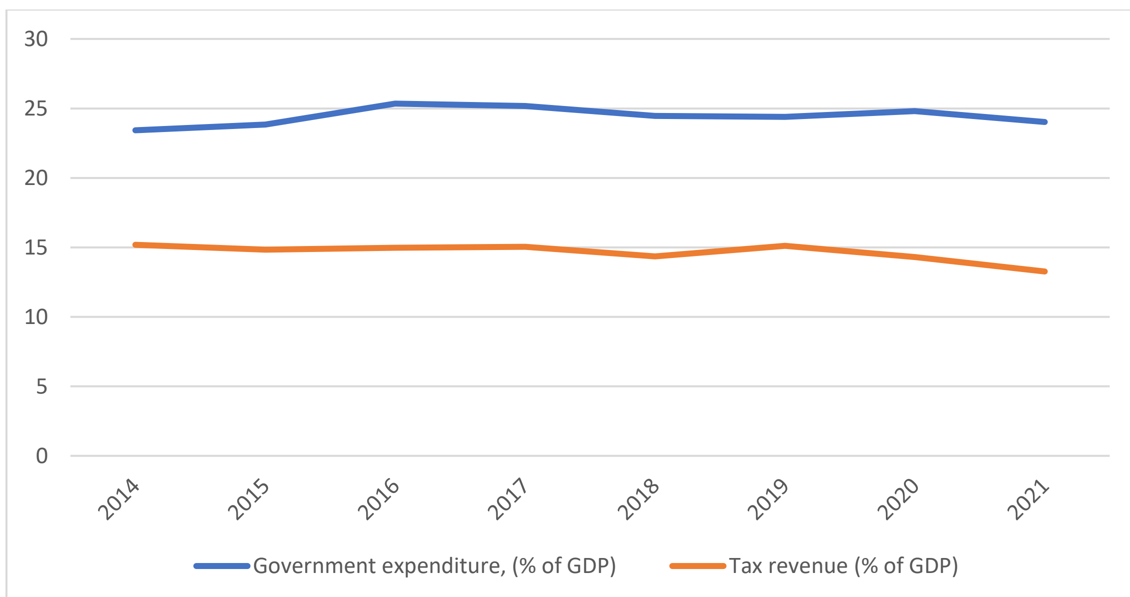

Fig. 1. Trend in Tax Revenue and Government Expenditure as a percentage of GDP
Source: WDI (2021) and IMF (2021)

2. STATEMENT OF THE PROBLEM

Despite various reforms and efforts to enhance tax revenue, Kenya's tax-to-GDP ratio remains below the United Nations benchmark of 20% required to meet Sustainable Development Goals (SDGs) and support economic development. Historically, Kenya has faced challenges related to fiscal indiscipline, inefficiencies in the public sector, and fluctuating economic conditions, which have hampered effective domestic resource mobilisation. The initiation of the Public Financial Management Reform (PFMR) plan and the establishment of the Kenya Revenue Authority (KRA) aimed to address these issues, yet the tax income as a percentage of GDP has continued to fall short of the necessary threshold. This research seeks to provide a comprehensive analysis of Kenya's tax revenue trends over 20 years (2001-2021), exploring patterns of increase, stagnation, or decline and assessing the factors contributing to the persistent low tax-to-GDP ratio. Understanding these changes is crucial for developing strategies to improve tax collection efficiency, enhance revenue mobilisation, and support Kenya's economic and developmental goals.

2.1 Objectives

i. Analyse the trends in Kenya's tax revenue to identify patterns of increase, stagnation, or decline.
ii. Evaluate the tax-to-GDP ratio to gauge the efficiency of Kenya's tax collection system and its impact on the national economy.

2.2 Scope and Limitations

1. Data Availability and Accuracy: The study relies on historical data, which may suffer from accuracy issues or inconsistencies, particularly in earlier years. Incomplete or inaccurate data can affect the reliability of the findings and limit the robustness of the analysis.
2. Scope of Analysis: The research focuses exclusively on Kenya, which may limit the generalizability of the findings to other countries with different economic, social, and political contexts. The unique characteristics of Kenya's tax system and economic conditions may not be applicable to other nations.

3. LITERATURE REVIEW

3.1 Theoretical Review

3.1.1 Theory of Planned Behavior (TPB) in tax policy compliance

The Theory of Planned Behavior (TPB), developed by (Ajzen, 2020), has been a foundational framework for understanding various behavioural intentions, including tax compliance. TPB posits that individual behaviour is driven by three key constructs: attitude towards the behaviour, subjective norms, and perceived behavioural control. In the context of tax compliance, these constructs help in understanding how taxpayers' attitudes, perceived social pressure, and control over compliance behaviour influence their willingness to comply with tax laws [9].

Several studies have applied TPB to tax compliance. For example, Bobek and Hatfield, [10] used TPB to analyse the determinants of tax compliance behaviour in the U.S., identifying that attitudes towards tax evasion, perceived behavioural control, and subjective norms significantly impact compliance intentions. Similarly, Trivedi et al., [10] applied TPB to assess the factors influencing individual tax compliance in Australia, finding that moral obligation and perceived fairness also play significant roles.

While TPB provides a robust framework for understanding tax policy compliance behaviour, recent studies have sought to extend the theory by incorporating additional constructs that may influence compliance. For instance, Al et al., [11] extended TPB by including perceived tax complexity as a factor in understanding compliance behaviour in Malaysia [12]. Saad's study revealed that the perceived complexity of the tax system negatively impacts compliance intentions, suggesting that simplifying tax processes could improve compliance and, hence, increase tax revenue.

The role of trust in tax authorities has also been explored as an extension to TPB. A study by Wahl et al., [13] in Austria showed that trust in tax authorities significantly influences tax compliance, with higher trust levels leading to higher compliance rates. This extension underscores the importance of the relationship between taxpayers and tax authorities in fostering voluntary compliance.

4. EMPIRICAL REVIEW

The empirical analysis of tax systems and reforms reveals significant insights into the determinants of tax revenue and the impact of policy changes. According to Karingi et al. [13,14] The reliance on indirect taxes has expanded at the expense of direct taxes. Consumption taxes were deemed to be more beneficial for growth and investment. Trade tariffs were viewed as tools to promote export-led industrialisation rather than for protection or revenue maximisation; as a result, rather than protecting the manufacturing sector from import competition, trade taxes were employed to promote a competitive export industry.

In a similar vein, Kanyi et al., [15] stated taxation as a measure of state capability, formation, and power relations in society as a whole. Kenya implemented tax reforms to combat inequality and develop a sustainable income structure for state expenditures. The tax modernisation initiative aims to create a sustainable tax system that can adapt to changing situations, both locally and globally. Policies shifted towards relying on indirect taxes rather than direct taxes. Consumption taxes encourage investment and growth. The regression model of Total Tax Revenue on Domestic Taxes and Customs yielded positive and significant coefficients at the 5% level.

Expanding the scope to OECD countries,(Castro G. Á & Camarillo D. B. R., [16] uses static and dynamic panel data to analyse the impact of economic, structural, institutional, and social factors on tax revenue in 34 OECD nations from 2001 to 2011. The data show that GDP per capita, the industrial sector, and civil freedoms all have a positive effect on tax revenue, whereas the agricultural sector and the share of foreign direct investment (FDI) in gross fixed capital formation have a negative influence. The positive effect of the lagged tax revenue variable implies that past tax performance influences current revenue, with a greater impact reported in high-income nations. Furthermore, the study emphasises the constancy of tax effort and the tax gap over time while noting considerable variances across countries, regardless of the level of development.

Genschel & Seelkopf, [17] Compare tax policy changes in underdeveloped nations and transition economies to those in established Western democracies, estimating total tax income by combining domestic taxes and customs duties. Non-Western countries tend to follow Western countries in some areas, but not all. Non-Western countries adopted Western consumption taxation, such as higher value-added tax and lower trade taxation, but did not replicate the strong and progressive personal income tax of the 20th century. Taxation patterns are linked to socioeconomic changes (measured by GDP per capita) and structural issues (determined by country size). Political institutions' impact on taxation is non-linear and complex.

The proper content and level of government taxes have become critical for achieving a broad-based, stable path of economic growth across countries. Kenya has gradually shifted from direct to indirect taxation since 1973, with the goal of building a long-term tax structure capable of generating sufficient money for economic growth.

According to Owino [18], “The Trade-off between Direct and Indirect Taxes in Kenya. An Empirical Analysis” The regression study found a negative association between direct taxes and economic growth, but a positive relationship between indirect taxes and economic growth. On the other hand, tax revenue leads to economic growth. The empirical data show that direct taxes have a negative link with economic growth in Kenya, whereas indirect taxes have a positive correlation, corroborating the endogenous growth models' predictions. Thus, according to these and other findings, the global shift from direct to indirect taxation has empirical support in Kenya. As a result, it advised that the government depend on indirect taxation rather than direct taxation due to its higher economic potential and lower distortionary character.

Alsharari [19] evaluates tax policy adjustments in North Africa and the Middle East, finding that non-resource revenues have decreased slightly while resource income has increased. Analysing government revenues and taxing structures can reveal the effectiveness of previous changes in terms of revenue, equity, and efficiency and identify areas for improvement to create simpler tax systems. The analysis shows that the Maghreb sub-region has higher taxes and revenues than the Mashreq, with the exception of value-added tax, where low rates lead to equal or larger revenue. Income taxes, rather than indirect taxes, were found to partially compensate for revenue losses due to trade liberalisation.

Using a comprehensive dataset from eight nations, Minh Ha et al., [20] researched the determinants of tax income in Southeast Asia. The findings show that economic openness, foreign direct investment (FDI), the foreign debt-to-GDP ratio, and the industrial sector's percentage of GDP all have a favourable impact on tax income. Conversely, official development assistance (ODA) has a detrimental impact on tax income. The report underlines the need for Southeast Asian countries to implement more effective policies in international commerce, attract foreign direct investment, expedite economic restructuring, and develop.

In analysing tax revenue dynamics in Kenya, recent studies underscore the complexity of revenue volatility, particularly in Sub-Saharan Africa, where inconsistent public spending impedes sustainable development. Otieno, [21] extends this exploration by investigating the determinants of tax revenue in Kenya over 39 years from 1984 to 2022. The findings reveal that while agricultural value added significantly boosts tax revenue in the long run, variables such as GDP and government expenditure exhibit no significant long-term impact. In the short run, both the lagged tax-to-GDP ratio and GDP play crucial roles. This research highlights the pivotal role of agricultural productivity in enhancing tax revenue and provides actionable insights for policy improvements.

Analysing the effects of Goods and Services Tax (GST) adoption on revenue efficiency in Indian states, Garg, Priyanka, et al., [22] discovered that the implementation of GST in India has had a negative impact on the revenue efficiency of Indian states. Furthermore, the findings confirm that the service sector's contribution to the state's Net State Domestic Product (NSDP), credit-deposit ratio (CDR), and outstanding net bank credit (ONBC) ratio of scheduled commercial banks (SCBs) are positive, whereas states' reliance on central transfers (DCT) has a negative impact on state governments' tax revenue efforts. Furthermore, GST implementation has a bigger influence on the revenue efficiency of minor states than major states, potentially widening the inter-state inequality gap, as GST revenue accounts for a significant portion of the Indian states' Own Tax Revenue (OTR) in aggregate. Garg, Narwal, et al., [23] confirmed that GST implementation has a greater influence on the revenue efficiency of minor states than major states, potentially widening the inter-state inequality gap, as GST revenue accounts for a significant portion of the Indian states' Own Tax Revenue (OTR) in aggregate.

The study by Garg et al., [23] empirically applies TPB to understand GST compliance behaviour in India. By analysing data from 503 GST taxpayers using exploratory and confirmatory factor analysis, the study finds that TPB explains 60.1% of the variance in compliance behaviour. The study confirms that attitude, subjective norms, and perceived behavioural control positively influence GST compliance, aligning with the traditional TPB framework. This research provides a validated instrumental scale that can be utilised in future studies to further explore GST compliance at both national and international levels.

Garg et al., [24] investigates the determinants of direct tax revenue in India, focusing on traditional, social, financial, and economic policy issues. The data show that, in terms of conventional factors, agriculture harms tax income, whereas trade openness has a favourable, significant effect. Urbanisation rates have a beneficial short- and long-term impact on tax collection. Financially, the credit deposit ratio has a favourable but small effect, whereas financial development greatly increases tax revenue. Among economic policy considerations, FDI, NODAU, and broad money all have a positive impact on tax revenue, with broad money being statistically significant. This report helps policymakers and scholars shape India's direct taxation policies.

Neog & Kumar Gaur, [25] analyses the macroeconomic factors of tax revenue performance in India between 1981 and 2016, highlighting the necessity of increasing tax revenue to avoid excessive reliance on foreign finance, which could lead to a debt trap. Using a dynamic simultaneous equation model, the study finds that economic growth, foreign aid, and trade have a positive effect on tax revenue, whereas inflation, development expenditure, and agricultural contribution have a negative impact. The study uses a dynamic three-stage least squares estimator to discover the avenues via which tax revenue performance might be improved, providing valuable insights for fiscal policy.

A study assessed the impact of GST adoption on the revenue efficiency of Indian states and found considerable results. Garg & Kumar, [26] The

implementation of GST has increased the national C-efficiency ratio while also increasing revenue efficiency in smaller, more consumptive states like Manipur, Mizoram, and Assam. While developed states continue to account for a higher share of total GST revenue, the shift in revenue sources to smaller states suggests that interstate inequities may be reduced. However, the data reveals greater revenue volatility among state governments following GST adoption. These findings have significant ramifications for state and federal governments, policymakers, and India's Fifteenth Finance Commission.

5. METHODOLOGY

In this study, 20-year series data spanning 2001 to 2021 was utilised to examine the trends in tax income as well as to evaluate the tax-to-GDP ratio in Kenya. The study uses secondary data sourced from several local and international institutions, including the Central Bank of Kenya (CBK) and The Kenya Revenue Authority (KRA), the Organisation for Economic Cooperation and Development (OECD) and the World Bank (World Development Indicators (WDI)).

6. RESULTS AND DISCUSSION

6.1 Assessment of the Impact of tax Policy Reforms on Tax Revenue Trends in Kenya

Kenya's tax income increased from 182,418 million shillings in 2001 to 1,692,662 million shillings in 2021. The administration is exploring tax reforms to create a sustainable and productive mechanism for funding government spending without relying on deficit financing. The country's constitution mandates a devolved governance structure, which necessitates increasing tax collection to support both the central and devolved governments.

Tax reforms implemented in the early 1970s have led to an increase in revenue to date. Taxes can be characterised as direct or indirect, depending on how they are collected. Let's examine the trends in the collection of direct and indirect taxes at the central level as well as their proportion in total central revenue.

Table 1. Trends in Direct and Indirect Taxes (Ksh. in Millions)

Year	Total tax revenue	Indirect tax	Indirect tax as % of total tax	Direct tax	Direct tax as % of total tax
2001	182,418	126,338	69.26	56,080	30.74
2002	183,213	122,615	66.92	60,598	33.08
2003	201,474	130,448	64.75	71,026	35.25
2004	228,994	147,056	64.22	81,938	35.78
2005	275,038	174,725	63.53	100,314	36.47
2006	299,299	183,804	61.41	115,495	38.59
2007	363,065	229,418	63.19	133,648	36.81
2008	438,361	256,414	58.49	181,947	41.51
2009	485,032	290,139	59.82	194,893	40.18
2010	539,494	319,134	59.15	220,360	40.85
2011	641,502	368,854	57.50	272,648	42.50
2012	715,022	385,913	53.97	329,109	46.03
2013	808,385	414,914	51.33	393,471	48.67
2014	973271	520,345	53.46	452,927	46.54
2015	1,080,800	575,671	53.26	505,129	46.74
2016	1,210,051	647,022	53.47	563029	46.53
2017	1,373,275	743,962	54.17	629,313	45.83
2018	1,446,826	791,523	54.71	655,304	45.29
2019	1,559,480	871,614	55.89	687,866	44.11
2020	1,615,201	860,834	53.30	754,367	46.70
2021	1,692,662	974,147	57.55	718,515	42.45

Source: Organisation for Economic Co-operation and Development (OECD)

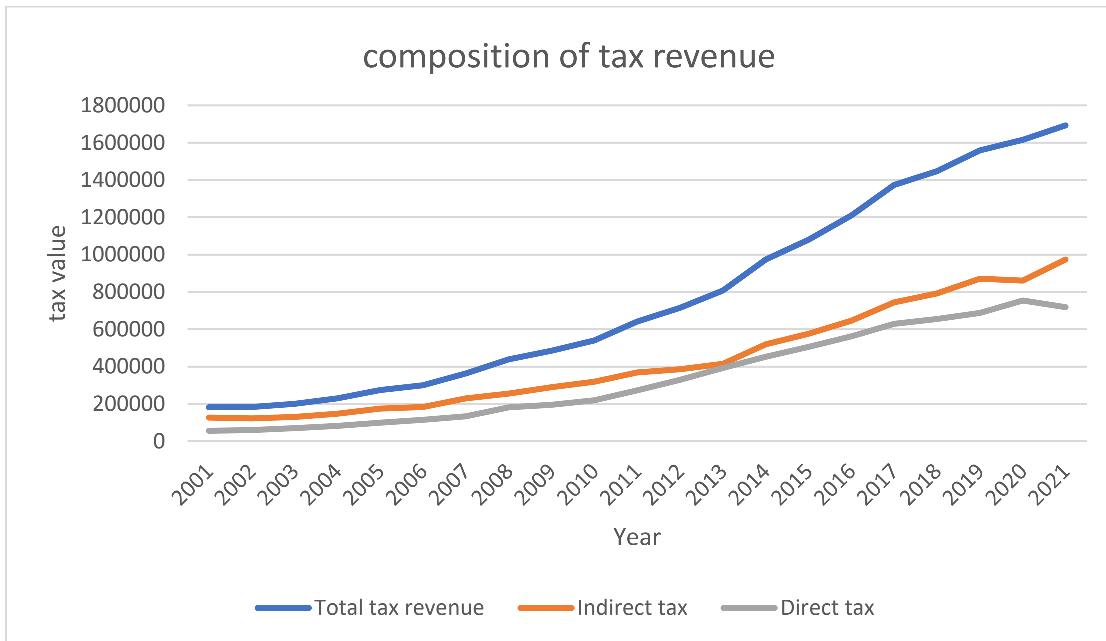

Fig. 2. Composition of central taxes

Source: Organization for Economic Cooperation and Development (OECD)

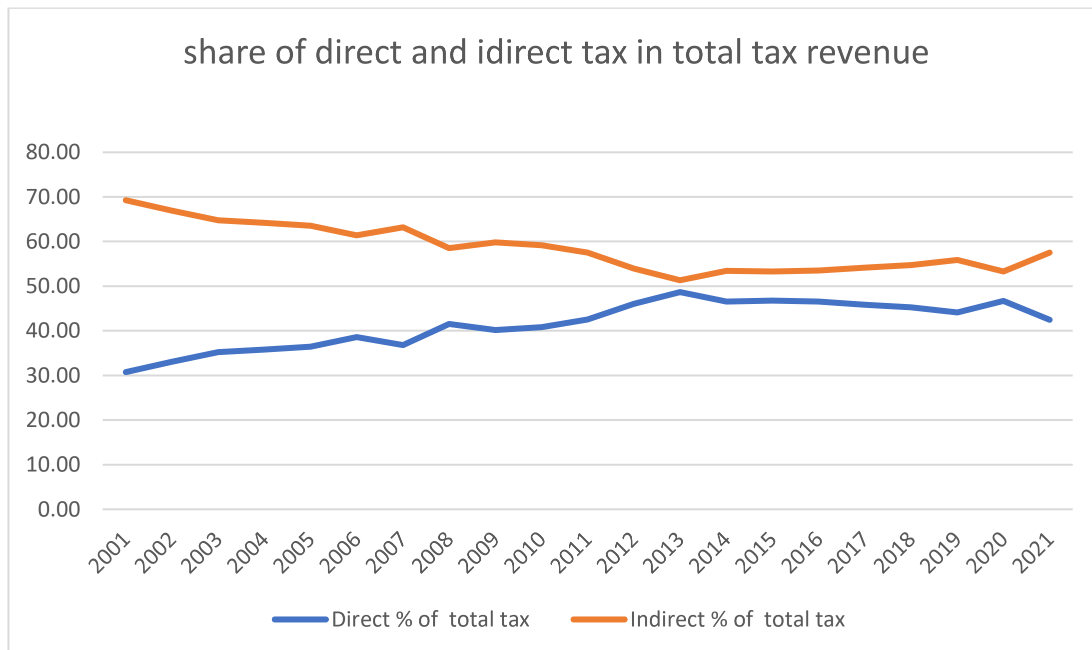

Fig. 3. Trends of direct and indirect taxes

Source: Organisation for Economic Cooperation and Development (OECD)

6.2 Trends in Direct and Indirect Tax

The comparison of direct tax collection to indirect tax collection, Table 1 and Figs. 2 and 3, show that direct taxes have risen since 2001, both in absolute terms and as a per cent of overall revenue. Direct taxes have grown significantly not only in absolute terms but also as a ratio of total taxes, which is particularly driven by reforms enhancing tax administration efficiency.(Karingi & Wanjala, [13], Tax Administration [27]. However, Alsharari, [19], Owino, [18] found contrasting results to this trend; a study by Brown, [28] suggests that political instability, such as that

observed during the 2007 election period, can disrupt direct tax collection temporarily. It began at 30.74 per cent of the total in 2001 and rapidly climbed to 38.59 per cent by 2006. It fell somewhat to 36.81 per cent in 2007 but then recovered, reaching a peak of 48.67 per cent in 2013. However, it then fell somewhat and has remained in the range of 42% to 49% till 2021. In 2013, indirect taxes outperformed direct taxes by a slight margin of 51.33 per cent against 48.67 per cent. Throughout the study period, indirect tax dominated, but the gap has significantly narrowed since 2001.

Kenya had a high dependency on indirect tax from 2001 to 2008, contributing 69.26 per cent of the total tax income, while direct tax only accounted for 30.74 per cent. During the early 2000s in Kenya, indirect taxes, like sales tax or import duties, took centre stage compared to direct taxes on income. This preference for indirect taxes is attributed to several factors. Firstly, collecting them at the point of sale or import made them much simpler and cheaper for the government to administer. Secondly, these taxes cast a wider net, reaching a larger portion of the population through everyday purchases, unlike direct taxes, which might only apply to salaried individuals or formal businesses. Additionally, indirect taxes offered the government a more stable source of income. Even during economic slumps, people tend to continue consuming at least some basic necessities, ensuring a steady flow of revenue. Kenya's economic landscape in the early 2000s has also played a role. A potentially larger informal sector, where income is difficult to track, has made direct taxes less effective. Finally, trade policies focused on import duties have further contributed to their dominance.

The increase in direct tax collection can be linked to the explosive expansion of the organised sector, the expansion of the financial sector's interaction with the rest of the economy, administrative measures taken by the tax administration (Kenya Revenue Authority), and tax structural reforms implemented during the research period. These resulted in improved tax compliance following the rationalisation of tax rates to a realistic level of 20% for the highest rate beginning in 1996, the introduction of technology and automation, and greater enforcement. E-payment of taxes, e-filing of returns, and computerisation of departmental tasks all help to improve tax collection and management [14].

First is the Tax Modernization Programme (TMP), which has had an impact since the beginning of the 2000s. The success of this reform package was dependent on achieving several objectives, including increasing revenue from 22 to 28 per cent of GDP, improving the economic efficiency of the tax system by lowering and rationalising tax rates, and increasing reliance on self-assessment systems. This finding is supported by Wawire, [29], highlighting both successes and challenges in increasing tax revenue over time. It can provide empirical support for the positive effects of reforms like the Tax Modernization Programme on revenue trends.

Second, the Electronic Tax Register (ETRs) was adopted, making it essential for VAT-registered enterprises to send tax invoices that are either ETR-generated or accompanied by ETR receipts. This was supposed to improve administrative efficiency, reduce evasion, and address the long-standing issue of poor record-keeping for business transactions by lowering the time required to prepare VAT returns. Despite these initial measures, there was a decrease in direct taxes in 2007, which can be attributed to the election season. The decrease in direct tax collection in 2007 was a one-time event, as opposed to a constant growth in previous years and a subsequent increase. This may be a reflection of the 2007 election and the political and economic turmoil it created, including political insecurity, disruption of corporate activities, and erosion of trust in government.

Third, Digitization of tax administration, including the Excisable Commodities Management System (EGMS) in November 2013, which is a Track and Trace System (TTS) for excisable commodities such as cigarettes and cigars, the *i*Tax system and KRA M-Service, improved revenue performance, particularly for direct taxes. The *i*Tax system, established in 2013, is a web-based tool that enables taxpayers to register, file, pay, and submit queries. The KRA M-Service platform, created in 2014, allows taxpayers to make payments and obtain tax information via mobile phones Njuguna Ndung'u, [30]. The digitisation of tax collection has resulted in the implementation of excise taxes on financial services and mobile phone airtime. However, their performance remains low. Technology has helped minimise unregistered commercial activity. This will increase the tax base by including more small and medium-sized firms (SMEs) in the tax rate. Digitising the tax system

has reduced corruption and improved efficiency by eliminating in-person encounters.

6.3 Trends in Direct Tax Collection

Kenya's direct taxes are broadly classified into corporate tax, personal income tax, property tax and other direct taxes. Though it has been noticed that the total direct tax collection in Kenya has been increasing at a steady pace in the last 20 years, it is important to see how its components are faring over the same period. From Fig. 4, it can be seen that personal income tax has been in the lead for the last two decades compared to corporate tax, property tax, and other direct taxes. Even though all these components of direct tax have exhibited growth over time, the margin between personal income tax and other components has widened, given its steady increase. CIP, property tax, and other factors represent smaller portions of total direct taxes.

Conversely, corporate income tax (CIT) performance has varied and has been influenced by tax incentives and economic cycles (IMF, 2020; KRA, 2022). Others have seen a slight increase but remain relatively flat. Property tax appears to be the least significant contributor to total direct tax collection. It has remained relatively flat throughout the period.

During this period, personal income taxes outperformed corporation taxes. Tax changes, such as the Pay-as-You-Earn (PAYE) system, have increased direct tax bases and improved tax administration through digitisation KRA 2022; Njuguna Ndung'u, 2017; Wawire, [29]. The Kenyan government's efforts to combat corruption, as well as the mandatory filing of individual tax returns through the *i*tax system, are likely factors contributing to this increase. Tax incentives for corporations to invest (KRA 2011) have led to lower corporate tax performance compared to income taxes.

During the study period, there was no significant increase in property or other taxes. In 2018, the International Monetary Fund (IMF) found that property taxes are insufficient to generate revenue. Property owners may struggle to be traced, there is no legislative framework for property taxation, or there are insufficient resources for property assessment (KRA, 2015; Mccluskey et al., [31]. The total direct tax has experienced fluctuating growth with a width band between 0 per cent and 20 per cent with three years exceptions: 2008 recorded the highest growth of 36.14 per cent, 2011 recorded a growth of 23.73 per cent and the lowest growth was seen in 2021, which recorded -4.75 per cent. Overall, the graph suggests that direct tax collection in this country has grown significantly over the past ten years. Personal income tax is the main driver of this growth, while corporate income tax, property tax, and other direct taxes play a smaller role.

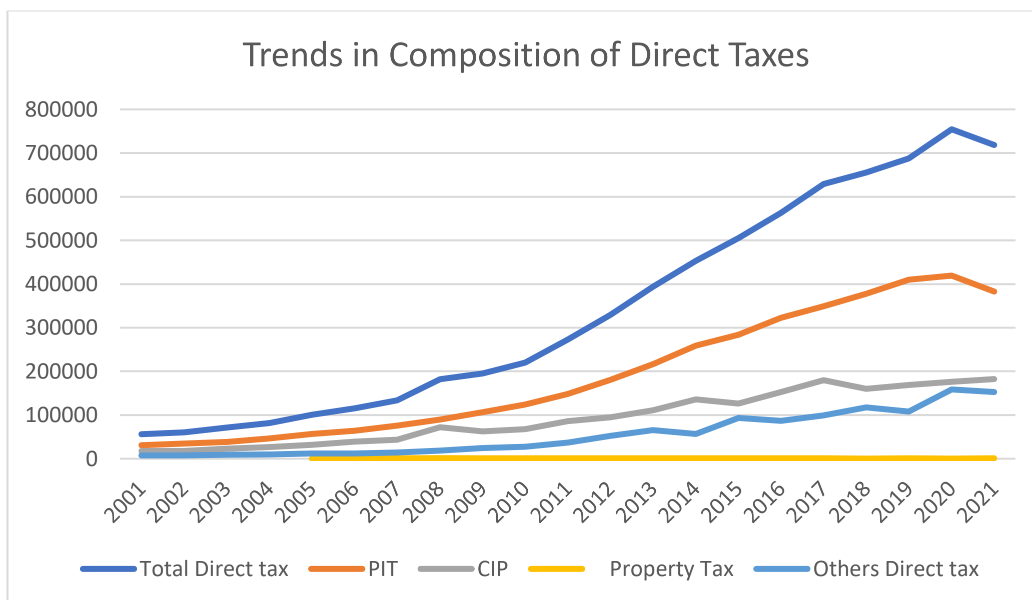

Fig. 4. Composition of direct taxes in Kenya trends in the composition of direct taxes
Source: Organisation for Economic Cooperation and Development (OECD)

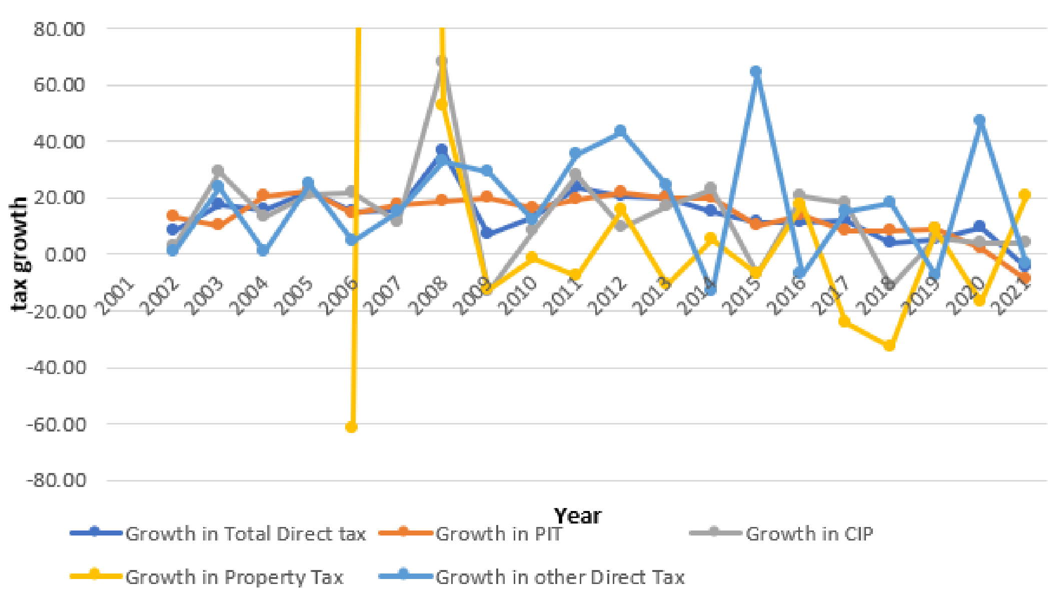

Fig. 5. Growth in direct taxes

Source: Organisation for Economic Cooperation and Development (OECD)

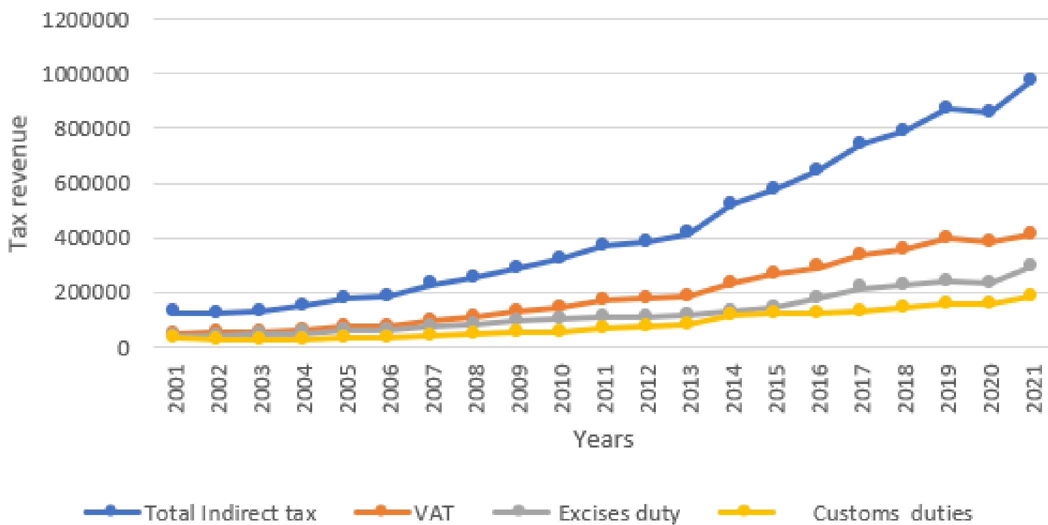

Fig. 6. Trends in the composition of indirect taxes

Source: Organisation for Economic Cooperation and Development (OECD)

6.4 Trends in Indirect Tax Collection

The analysis of the data from 2001 to 2021 reveals significant trends in various tax components. The total indirect tax collections have shown a consistent upward trend, with notable exceptions in 2002(OECD, 2018), which saw a slight decrease of -2.95%, and 2020, which experienced a decline of -1.24%. Significant growth periods include 2004 and 2005, with increases of 12.73% and 18.82%, respectively; 2007, with a 24.82% rise; and 2014, with a substantial growth of 25.41%. In 2021, there was a recovery with a growth of 13.16%. VAT (Value-Added Tax) collections also generally increased over the years. There were moderate increases in 2002-2003 at 0.94% and 10.74%, respectively OECD, [32]. Significant growth was observed in 2005 at 23.62%, in 2007 at 26.76%, and in 2011 at 21.72%. The year 2014 saw a

major growth of 27.44%. However, 2020 saw a decrease of -3.33%, followed by a recovery in 2021 with an increase of 6.90%.

Excise duty collections have mostly shown an upward trend, with consistent increases in 2002-2003 of 9.32% and 9.45%, respectively [33]. Notable increases were recorded in 2004-2005 with 14.80% and 15.10%, respectively, and a significant rise in 2007 to 22.16%. The year 2014 saw a considerable increase of 13.44%, and 2016 experienced a major growth of 25.42%. Despite a decrease of -3.39% in 2020, there was a large increase of 27.93% in 2021.

Customs duties have shown an overall increasing trend, albeit with more variability compared to other taxes. There was a significant decrease of -22.10% in 2002. However, 2004-2005 saw increases of 20.98% and 10.79%, respectively, and a large increase of 28.05% in 2007. The year 2014 experienced a substantial growth of 37.41%. Although there was a small increase of 2.92% in 2020, 2021 saw considerable growth of 16.51%.

From 2001 to 2021, the total indirect tax collections in Kenya have shown a consistent upward trend, with a few instances of minor declines, particularly in 2002 (-2.95%) and 2020 (-1.24%). VAT has been a major contributor to the total indirect tax revenue, generally accounting for a significant portion of the collections, with substantial growth in years like 2005 (23.62%), 2007 (26.76%), and 2014 (27.44%). Excise duty collections have also shown an upward trend, with notable increases in 2004-2005 (14.80% and 15.10%) and 2016 (25.42%), though there were occasional declines, such as in 2020 (-3.39%). Customs duties have demonstrated variability but generally followed an increasing trend, with significant growth in years like 2004 (20.98%), 2007 (28.05%), and 2014 (37.41%), despite notable declines in certain years, such as 2002 (-22.10%). Comparative analysis reveals that VAT has consistently been the largest contributor to the total indirect tax revenue, followed by excise duties and customs duties. Key years like 2007, 2014, and 2021 saw significant increases across multiple tax components, indicating strong fiscal performance or policy changes, while years like 2002 and 2020 experienced declines due to economic downturns or other external factors. Proportional contributions in selected years illustrate that VAT, excise duties, and customs duties have played dynamic roles in revenue collection, with VAT being the most significant contributor.

6.5 Analysis of Tax-GDP Ratios

There is a public discussion about Kenya's historical tax collecting record as a percentage of GDP. The widespread consensus is that we are punching below our weight. The government has embarked on a tax reform plan outlined in the Medium-Term Revenue Strategy (MTRS) aimed at raising domestic revenues. The plan is expected to generate additional resources necessary to fulfil the present administration's pledges under the Bottom-up Economic Transformation Agenda.

The MTRS will be implemented across three years, from fiscal year 2024/25 to 2026/27. The East African Community (EAC) strives for a 25% tax-to-GDP ratio, which the government intends to accomplish by 2030. The government's three-year strategy is to increase the regular revenue-to-GDP ratio by 5% through administrative initiatives and tax policy adjustments. In addition, Kenya's non-tax receipts accounted for 2.3% of GDP [34]. This was lower than the 33 African countries' average non-tax revenue (5.8% of GDP). In general, the agriculture sector's contribution to tax collections is expected to be small in comparison to its GDP contribution. This is because a considerable percentage of the industry is small-scale, with most farmers engaged in subsistence farming and very few commercial farming activities. When implementing the MTRS, the government should consider Kenya's particular economic structure to strike a healthy balance between increasing tax collections and promoting economic growth. This will ensure that the goose that lays the golden eggs continues to lay them while also encouraging all sectors to thrive and contribute more to the national tax budget.

Despite a significant rise in revenue collections over the years, Kenya's tax-to-GDP ratio is lower than the predicted average for comparable countries [34]. According to the OECD [32], Kenya's tax-to-GDP ratio fell by 0.6 percentage points from 15.8 percent in 2020 to 15.2 percent in 2021. The average tax-to-GDP ratio for the 33 African countries, as published in the Revenue Statistics in Africa publication, stayed at 15.6 per cent throughout the same period. The publication also states that Kenya's highest tax-to-GDP ratio

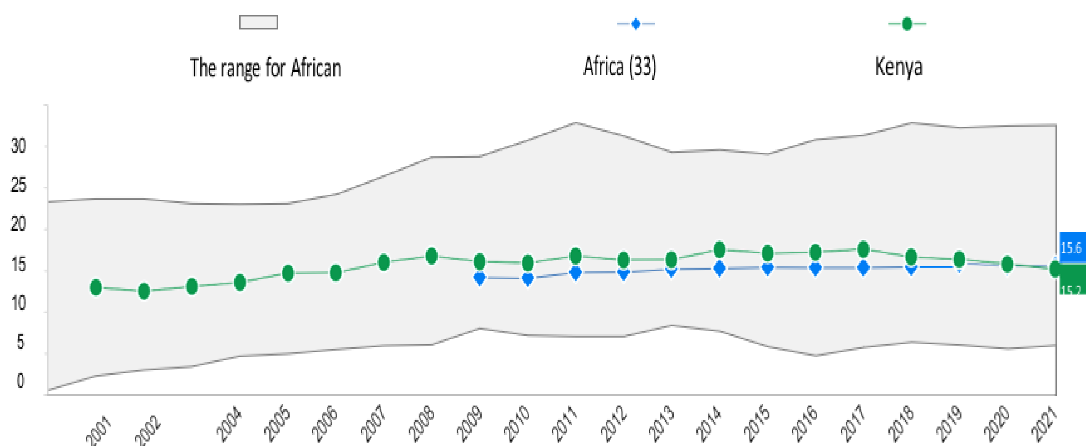

Fig. 7. Analysis of Tax-GDP Ratios

reported since 2000 was 17.5 per cent in 2017, with the lowest at 12.5 per cent in 2002.

According to the OECD, the average relative contribution of the various tax heads to total tax collections in Africa is as follows: personal income tax (17%), corporate income tax (19%), social security contributions (8%), taxes on goods and services other than VAT (24%), Value Added Tax (28%), and other taxes (4%). Kenya's tax receipts in 2021 were as follows: Non-VAT taxes on goods and services (32%), VAT (24%), personal income tax (22%), corporate income tax (11%), social security contributions (2%), and other taxes, which accounted for about 10%.

According to MTRS, Kenya's ordinary revenue as a percentage of GDP fell from 18.1% in 2013/14 to 14.1% in 2022/23. This was ascribed to a number of factors, including the negative effects of Covid-19, increased tax expenditure, and low tax compliance.

In particular, the Kenya Revenue Authority (KRA) has introduced a variety of fiscal and administrative strategies over the years to boost tax collections. These initiatives have shown significant benefits, with revenue collections increasing in the last five years from Sh1.58 trillion in 2018/19 to Sh2.166 trillion in 2022/23. This reflects a 37% increase over the last five years, equivalent to Sh586.259 billion.

According to KNBS [33], Kenya's GDP, which is the total of all finished products and services produced in the country within a certain period, has expanded at a steady rate throughout the last five years, except in 2020, when the economy contracted by 0.3%. In 2022, services contributed 55.1% of GDP, agriculture 21.2%, industry 17.7%, and other sectors 6.1%. Furthermore, formal employment accounted for 17.1 per cent of overall employment, while informal work accounted for 82.9 per cent.

7. CONCLUSION

In conclusion, the assessment of tax policy reforms on Kenya's tax revenue trends reveals significant strides and challenges over the past two decades. From 2001 to 2021, Kenya's tax income increased substantially, reflecting the government's commitment to fiscal sustainability and economic development. The shift towards direct taxes has been notable, with direct tax revenues steadily increasing as a proportion of total tax income, signalling improvements in compliance and administration. The evolution of tax policy reforms, such as the Tax Modernization Programme and digitisation initiatives like the *i*Tax system, has played a crucial role in enhancing revenue collection efficiency. These reforms facilitated better tax compliance, streamlined administrative processes, and broadened the tax base, particularly in the formal sector. However, challenges such as political disruptions in 2007 and external economic shocks like the COVID-19 pandemic in 2020 underscore the volatility and resilience required to sustain revenue growth.

Indirect taxes, though historically dominant, have seen a narrowing gap with direct taxes, reflecting a more balanced revenue structure. VAT, excise duties, and customs duties have shown varying

growth patterns, influenced by economic trends and policy adjustments aimed at stimulating economic activity and revenue growth. Looking forward, Kenya's Medium-Term Revenue Strategy aims to further increase tax-to-GDP ratios and enhance revenue diversification through administrative reforms and targeted policy adjustments. Achieving these goals will be critical in supporting sustainable development goals and ensuring fiscal resilience amidst global economic uncertainties. While Kenya has made significant strides in tax policy reforms and revenue collection, continued efforts are necessary to achieve optimal revenue performance, mitigate economic vulnerabilities, and foster inclusive growth across all sectors of the economy.

8. POLICY IMPLICATION

1) Strengthen Tax Compliance and Administration: Enhancing tax compliance and administration remains crucial for increasing tax revenue. The success of past reforms, such as the Tax Modernization Programme and digitisation efforts like the iTax system, highlights the benefits of technology in improving tax collection. To build on these successes, Kenya should continue investing in advanced technologies and data analytics to better manage tax collection and compliance. Expanding digital platforms and improving taxpayer services can further enhance efficiency and accessibility.
2) Diversify Tax Revenue Sources: Balancing the revenue mix between direct and indirect taxes is essential for stability. While direct taxes have seen growth, indirect taxes still play a significant role in revenue collection. To diversify revenue sources, Kenya should consider introducing or enhancing taxes in emerging sectors, such as the digital economy and luxury goods. Improving the administration and efficiency of underperforming taxes, such as property taxes, is also necessary to broaden the revenue base.
3) Address Economic and Political Disruptions: Economic and political disruptions, such as the 2007 election period and the COVID-19 pandemic, have shown how vulnerable tax revenue can be to external shocks. Developing contingency plans to mitigate these impacts is vital. Kenya should create emergency funds and policies to stabilise tax revenue during crises and focus on enhancing economic resilience and political stability to reduce the impact of such disruptions.
4) Improve Tax Policy and Legislation: Continuous evaluation and adjustment of tax policies are essential to adapt to changing economic conditions. Regularly reviewing and updating tax policies to reflect current economic realities and best practices can enhance revenue generation. Ensuring that tax policies are equitable and do not disproportionately affect specific groups will help maintain fairness and effectiveness in the tax system.
5) Promote Economic Growth and Formalization: Encouraging economic growth and the formalisation of businesses can significantly boost tax revenue. Policies that incentivise informal businesses to transition to the formal sector and promote overall economic growth will expand the tax base. Investment in infrastructure, education, and industry development will support this growth and enhance tax collection.
6) Enhance Taxpayer Education and Engagement: Effective tax policy implementation depends on taxpayer understanding and engagement. Investing in education programs to raise awareness about tax obligations and benefits can improve compliance. Increasing transparency and communication between tax authorities and taxpayers will build trust and cooperation, further supporting efficient tax collection.
7) Monitor and Evaluate Tax Reforms: Ongoing assessment of tax reforms is crucial for understanding their impact and making necessary adjustments. Establishing robust monitoring and evaluation frameworks will provide insights into the effectiveness of tax reforms and guide future policy decisions. Using empirical evidence from these evaluations will help refine and improve tax policies to better meet revenue goals and economic objectives.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image

generators have been used during writing or editing of manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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