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The Moderating Role of Inflation on the Effect of Tax Rate Reforms on Tax Revenue Collection in Kenya

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Abstract

Tax revenue is essential for financing public services and economic development. However, developing countries continue to face gaps between actual tax collections and revenue potential despite successive tax policy reforms. In Kenya, inflation may influence the effectiveness of tax rate reforms by affecting the real value of taxable incomes and transactions. Understanding this moderating effect is crucial for developing effective tax policies and strengthening domestic revenue mobilization. To better understand this issue, the study investigated the moderating role of inflation (INFL) in the relationship between tax rate reforms (TRR) and tax revenue collection (TRC) in Kenya. Specifically, the study examined the effects of tax rate reforms on tax revenue collection and assessed whether inflation moderates the relationship between tax rate reforms and tax revenue collection. The study was guided by Optimal Taxation Theory and the Olivera–Tanzi Effect Theory and employed an explanatory research design using a time-series approach. The study adopted a census approach, covering all 31 annual observations on tax rate reforms, inflation, GDP, and tax revenue collection for the financial years 1994/95–2024/25. Secondary data were obtained from reports published by the Kenya Revenue Authority (KRA), Kenya National Bureau of Statistics (KNBS), and the National Treasury. The data was analyzed using descriptive and inferential statistical techniques. The findings revealed that inflation significantly moderated the relationship between tax rate reforms and tax revenue collection in Kenya. The results indicated that tax rate reforms had a positive and statistically significant effect on tax revenue collection ($\beta = 5.180$, $p < 0.05$). Furthermore, inflation significantly moderates the relationship between tax rate reforms and tax revenue collection ($\beta = -1.008$, $p < 0.05$), indicating that higher inflation weakens the positive effect of tax rate reforms on tax revenue collection. The findings support the Optimal Taxation Theory and Olivera–Tanzi Effect Theory, demonstrating that effective tax rate reforms enhance revenue collection, while inflation can weaken their effectiveness.

Key words: Tax Revenue Collection, tax rate reforms, Inflation

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1.Introduction

Taxation is the primary source of government revenue and plays a fundamental role in promoting economic growth and improving citizens' welfare(Chantha, 2023). It provides the financial resources needed to finance public expenditure, support infrastructure development, deliver essential public services, and implement social and economic policies, making it the backbone of a nation's fiscal system (Huang et al., 2022). As economies grow, the demand for public investment and service delivery increases, making adequate tax revenue indispensable for the effective functioning of governments at both sub-national and national levels (Adeleke,

2021). Consequently, sustaining tax revenue collection depends largely on taxpayer compliance, which is enhanced through clear tax regulations, transparent procedures, efficient tax administration, and fair enforcement rather than coercive measures alone (Purnama & Yani, 2023).

Globally, tax revenue collection remains a key pointer of a country's financial capacity and the efficiency of its tax administration(Atsebi et al., 2025). Caporale et al. (2024) found that tax revenues exhibited strong long-run persistence across OECD countries, while significant cross-country disparities indicate that many countries have yet to achieve their full tax revenue potential. In Africa, tax revenue mobilization remains low. According to the OECD and the African Union Commission (2025), Africa's average tax-to-GDP ratio was 16.1% in 2023, with more than half of the countries recording ratios below 15%. Consistent with this, Bergeronet al. (2024) Concluded that limited government enforcement capacity imposes a binding constraint on tax revenue collection in the Democratic Republic of the Congo.

In East Africa, tax revenue mobilization remains relatively low. According to the African Tax Administration Forum (2025), Kenya (16.2%)**,** Uganda (13.1%)**,** Tanzania (11.8%)**,** and Rwanda (15.9%) recorded tax-to-GDP ratios below 20% in 2023, reflecting persistent challenges in domestic revenue collection. Consistent with these statistics Mutegi and Okiro (2025), found that tax revenue collection in the East African Community remains below its potential, despite trade liberalization and fiscal reforms. In Kenya, tax revenue mobilization remains below its potential. According to National Treasury of Kenya (2024), total revenue collection reached 16.8% of GDP in FY 2023/24 against a target of 18.0% of GDP, reflecting a significant revenue shortfall. Consistent with this, Benard (2024) found that structural economic factors and weaknesses in tax administration continue to constrain tax revenue performance in Kenya.

Existing literature suggests that effective tax policy reforms are important drivers of improved tax revenue collection by strengthening compliance, broadening the tax base, and enhancing the efficiency of revenue administration. Consistent with this, Kassaw, (2023) found that tax rate reforms have a significant positive effect on revenue collection. This supports the present study's finding that tax rate reforms significantly increase tax revenue collection, suggesting that well-designed and effectively implemented reforms can strengthen the government's capacity to mobilize domestic revenue. These findings align with the Optimal Tax Theory, which posits that well-designed tax policies should maximize revenue while minimizing economic distortions and promoting efficient tax administration. While tax policy reforms are expected to improve tax revenue collection, their effectiveness may depend on prevailing macroeconomic conditions, particularly inflation, which influences the real value of tax collections and taxpayer compliance (Andini & Wijaya, 2024).This study therefore examines the effect of tax rate reforms on tax revenue collection and the moderating role of inflation in this relationship.

2. Theoretical Foundation

This study is anchored on two complementary theories **Optimal Taxation Theory** and the **Olivera–Tanzi Effect Theory.** Together, these theories provide a robust foundation for explaining how tax policy reforms influence tax revenue collection and how inflation may condition this relationship. **Optimal Taxation Theory**, building on the seminal work of Ramsey, (1927), emphasizes the design of tax policies that enhance revenue generation while minimizing economic distortions. In contrast, the **Olivera–Tanzi Effect Theory**, associated with Olivera, (1967) and Tanzi, (1977) , explains how inflation can erode the real value of tax revenues, particularly when there is a time lag between tax assessment and collection. In the context of **Kenya**, these theories provide a relevant framework for examining whether tax rate reforms improve revenue collection and whether inflation strengthens or weakens this relationship. Thus, linking tax rate reforms to Optimal Taxation Theory and inflation to the Olivera–Tanzi Effect Theory underscores the joint influence of tax policy design and inflationary conditions on tax revenue collection. While appropriately designed tax rates can improve revenue mobilization, inflation can erode the real value of tax revenues and thereby weaken the revenue-enhancing effect of tax reforms.

2.1 Optimal Taxation Theory

Optimal Taxation Theory emphasizes designing tax systems that maximize revenue while minimizing economic distortions and promoting equity. The theory recognizes that taxpayers respond to changes in tax rates and that governments have imperfect information about their behavioral responses. David et al. (2025), note that the theory provides a normative framework for balancing social welfare with efficient revenue mobilization. Consistent with this perspective, Joshua-Gyang (2024), found that well-designed tax rate reforms can enhance tax revenue as economic activity and GDP expand. However, excessively high tax rates may discourage investment and economic activity, narrowing the tax base and reducing revenue collection (Bilan & Marius, 2025; Baroroh et al, 2025).

2.2 Olivera–Tanzi Effect Theory

The Olivera–Tanzi Effect Theory explains how inflation reduces the real value of tax revenue through the time lag between tax assessment, payment, and collection. As prices rise during this lag, the purchasing power of tax receipts declines, so nominal increases in tax revenue may not translate into higher real revenue(Olivera, 1967; Tanzi, 1978). The magnitude of this effect depends on the rate of inflation, the length of collection delays, and the efficiency of tax administration (Zoran & Sandra, 1996). Thus, persistent inflation can weaken government revenue mobilization by eroding the real value of tax receipts. Consistent with the theory, Serin and Demir, (2025)found that inflation negatively affects tax revenue, as rising prices reduce the real value of tax receipts and weaken revenue collection.

3.Literature Review and Hypotheses Development

3.1.1 Tax rate Reforms and Tax Revenue Collection

Tax rate reforms refer to the process through which governments modify tax rates and related mechanisms to enhance tax administration and strengthen revenue mobilization Kaguara (2022). From the perspective of Optimal Taxation Theory, tax rates should be designed to balance revenue mobilization with taxpayers' behavioural responses, economic efficiency, and compliance. Effective implementation of tax rate reforms can therefore influence taxpayer behaviors, compliance, and ultimately tax revenue collection. Shen et al. (2021) and David et al. (2025), observe that appropriately designed tax rates can contribute to higher tax revenue by improving the efficiency and effectiveness of the tax system. In particular, tax rates perceived as fair and reasonable can encourage voluntary compliance by reducing taxpayers' incentives to evade taxes (Noviari,2019). However, changes in tax rates do not necessarily produce proportional changes in tax revenue. Meita et al. (2023), argue that an adjustment in tax rates, whether upward or downward, does not automatically translate into a corresponding change in tax revenue collection, as revenue outcomes may also depend on taxpayer compliance, the tax base, economic conditions, and the effectiveness of tax administration. Thus, consistent with Optimal Taxation Theory, the effect of tax rate reforms on tax revenue depends not only on the direction or magnitude of rate changes but also on how effectively the tax system balances revenue objectives with taxpayer responses and economic activity.

H_{01}: Tax rate reforms has no significant effect on tax revenue collection.

H_{11}: Tax rate reforms has a significant effect on tax revenue collection.

3.1.2 The Moderating Role of Inflation

Inflation is widely regarded as a double-edged economic phenomenon because its impact on tax revenue depends on its magnitude, persistence, and the prevailing economic conditions. Moderate and stable inflation is generally considered beneficial to economic growth because it encourages production, investment, and consumption. As economic activity expands, taxable income, business profits, and consumer expenditure also increase, thereby broadening the tax base and increasing government tax revenues. Erika, (2020) argues that mild inflation provides entrepreneurs with an incentive to expand production in anticipation of higher profits. Supporting this view, Nadia, (2020) found that low inflation positively influences income tax revenue because higher consumer spending and economic activity generate increased tax collections. Likewise, Mubarok et al. (2024) observed that moderate and stable inflation can stimulate investment and consumption, thereby support economic growth and enhancing revenue mobilization. However, excessive and persistent inflation can significantly undermine the performance of tax systems and reduce the effectiveness of tax policy reforms. Although inflation may initially increase nominal tax revenues due to rising prices, wages, and profits, these gains are often temporary. Over time, high inflation reduces households' purchasing power, discourages consumption, distorts investment decisions, and weakens business profitability, thereby shrinking the real tax base (Budiman, 2025). Moreover, prolonged inflation erodes the real value of tax revenues because delays between tax assessment, collection, and remittance reduce their purchasing power before they are received by the government, a phenomenon explained by the Olivera–Tanzi Effect Theory (IMF, 2013). High inflation also increases production costs, creates economic uncertainty, discourages private investment, and may increase poverty levels, all of which reduce taxpayers' capacity to comply with tax obligations and constrain sustainable economic growth (Print et al., 2025). This show that Inflation plays a dual role in tax revenue collection by altering the effectiveness of tax policy reforms. Under low and stable inflation, reforms can improve compliance, broaden the tax base, and enhance revenue collection. However, high and persistent inflation can erode the real

value of tax receipts, reduce purchasing power, discourage economic activity, and weaken the effectiveness of reforms. Thus, inflation may strengthen or weaken the relationship between tax policy reforms and tax revenue collection, depending on its level and persistence.

4. Conceptual Framework

The conceptual framework of the current study examines the moderating role of inflation in the relationship between tax rate reforms (independent variable) and tax revenue collection (dependent variable). Inflation is conceptualized as a moderating variable that may strengthen or weaken the effect of tax rate reforms on tax revenue collection., while Gross Domestic Product (GDP) is included as a control variable to account for the influence of economic growth on tax revenue collection.

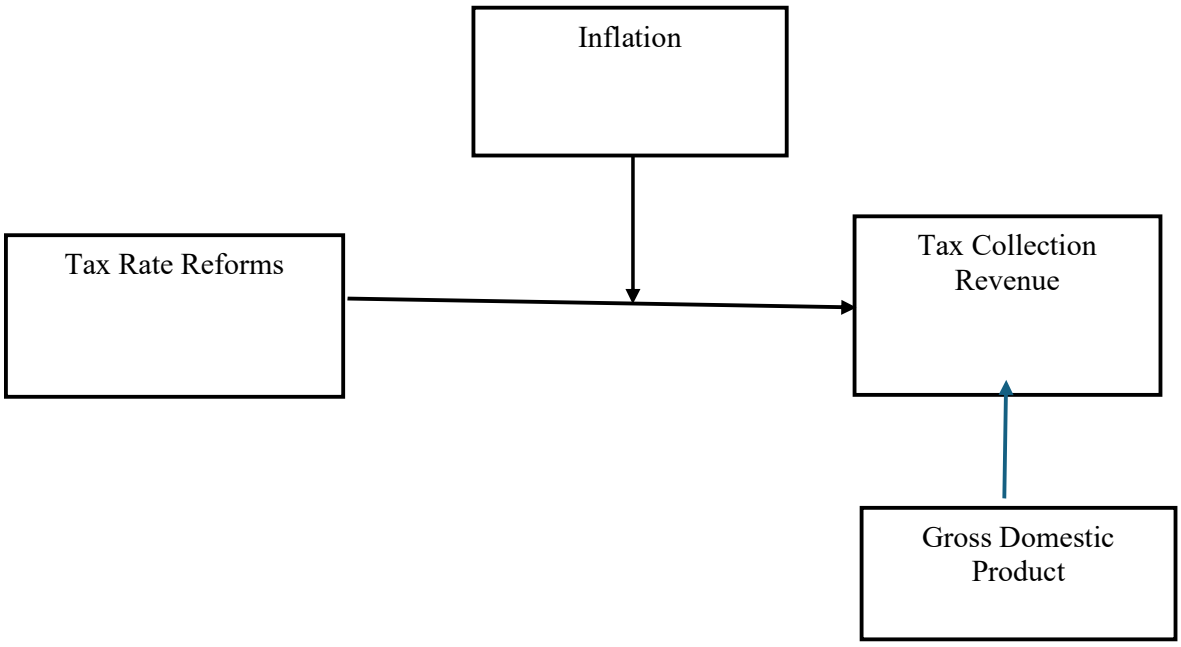


Figure 1. Conceptual Framework

5. Methods and Materials

The study adopted a positivist philosophical approach and was guided by a longitudinal time-series and explanatory research design. The study employed a census approach, covering all 31 annual observations for the financial years 1994/95–2024/25. The analysis focused on tax rate reforms, inflation, GDP, and tax revenue collection. Secondary data were obtained from official publications of the Kenya Revenue Authority (KRA), Kenya National Bureau of Statistics (KNBS), and the National Treasury. The operationalization, measurements, and abbreviations of the study variables are presented in Table 1.

Table 1. Measurement of Variables

Variable	Proxy	Formula	Reference/s
Tax Rate Reform	TRR	Constructed content analysis index based on the annual Finance Acts.	(Rademacher&Rademacher, 2022);
Inflation	Infl	Annual CPI-based inflation rate (%) for each year of the study period.	(Arlt, 2023)
TRC	LnTRC	Natural log of Actual tax revenue in each specific year	(Nipa et al., 2025)
GDP	Ln GDP	Natural logarithm of annual GDP for each year of the study period.	(Nipa et al., 2025)

Source: Author

The study applied the following regression model to estimate the moderating role of inflation on the relationship between tax rate reform and tax collection reform.

$$TRC_t = \beta_0 + \beta_1 GDP_t + \beta_2 TRR_t + \beta 3 INF_t + \beta 4 (TRR_t \times INF_t) + \varepsilon_t$$

Where:

TRC_t = Tax revenue collection in year *t*
GDP_t = Gross Domestic Product in year *t*

TRR_t = Tax Rate Reform Index
INF_t = Inflation rate measured using annual CPI-based inflation rate

$TRR_t \times INF_t$ = Interaction term between tax rate policy reforms and inflation
β_0 = Constant term
β_1–β_6 = Regression coefficients
ε_t = Error term

6. Findings and Discussion

The study presented descriptive results and inferential findings in based on correlation and regression tests.

6.1 Descriptive Statistics

Table 2 shows the mean, minimum, and maximum values and standard deviation of the research variables and data for the period 1995-2026. Based on this table, Tax revenue collection had a mean of 7.530 (minimum = 4.00, maximum = 10.560; standard deviation = 1.607). The mean value of 7.530 in natural logarithm form corresponds to approximately Ksh. 1.8615 trillion. This signifies that, on average, tax revenue collection over the study period was about Ksh. 1.86 trillion, reflecting a relatively high level of revenue mobilization by the Kenya Revenue Authority. The minimum value of 4.000 and maximum value of 10.560 demonstrate considerable variation in tax revenue collection over the study period. This indicates that revenue mobilization varied substantially across the years, with some periods recording relatively low levels of tax revenue collection and others experiencing considerably higher collections. The standard deviation of 1.607 further indicates a moderate degree of dispersion around the mean, suggesting that tax revenue collection fluctuated from one year to another. Such variations may be associated with changes in economic conditions, the implementation of tax policy reforms, improvements in tax administration, and changes in the size and composition of the tax base over the study period. The findings are in line with those of Stella et al. (2026), who measured tax revenue collection as the natural logarithm of total tax revenue in year *t*. The study reported an average tax revenue collection of approximately ₦4.04 trillion, with a minimum of ₦0.5008 trillion and a maximum of ₦21.7 trillion, indicating substantial variation in tax revenue performance over the study period. In addition, the standard deviation of approximately ₦4.81 trillion suggests significant dispersion around the mean, reflecting volatility in tax revenue mobilization across the period of analysis. The mean of Tax Rate Reforms was 0.556 (minimum = 0.190, maximum = 1.000, standard deviation = 0.196). The mean value indicates that tax rate reforms were

implemented at a moderate level during the study period, suggesting a moderate degree of attention to tax rate adjustments within Kenya's tax policy framework. The minimum value of 0.190 indicates that there were periods during which the intensity of tax rate reforms was relatively low, whereas the maximum value of 1.000 represents periods in which the highest level of tax rate reform intensity was recorded. The standard deviation of 0.196 indicates relatively low variability around the mean, suggesting that the intensity of tax rate reforms remained generally stable over the study period, with only modest fluctuations from one period to another. The mean value of the moderating variable, inflation, was 0.086 (minimum = 0.013, maximum = 0.156, standard deviation = 0.037). This indicates that, on average, inflation was approximately 8.6% over the study period, reflecting a generally low-to-moderate inflation environment. The minimum value of 1.3% suggests periods of very low inflation, while the maximum value of 15.6% indicates episodes of relatively high inflation in certain years. The standard deviation of 0.037 shows low variability around the mean, implying that inflation rates were relatively stable over time, with only modest fluctuations across the study period. For the control variable, gross domestic product (GDP), measured as the natural logarithm of total GDP in year t, the mean value was 2.687, with a minimum of 1.570, a maximum of 3.590, and a standard deviation of 0.498. This indicates that GDP exhibited a moderate average level over the study period, as captured in logarithmic form. The minimum value of 1.570 and the maximum value of 3.590 indicate a noticeable variation in economic output over the study period, reflecting differences in economic performance across the years. The standard deviation of 0.498 indicates a moderate level of dispersion around the mean, suggesting that GDP experienced some fluctuations during the period under study while maintaining a relatively stable overall trend.

Table 2. Descriptive Statistics

Variables	Obs	Min	Max	Mean	Std. Dev.
TRC	31	4.000	10.560	7.530	1.607
GDP	31	1.570	3.590	2.687	0.498
TRR	31	0.190	1.000	0.556	0.196
INFL	31	0.013	0.156	0.086	0 .037

TRC: Tax Revenue Collection, **GDP:** Gross Domestic Product**, TRR:** Tax Rates Reforms, **INFL:** Inflation

***Source*:** Research Findings

6.2 Correlation Analysis

The study used the Pearson pairwise correlation to test the nature and strength of the relationship between the variables. Table 3 shows that inflation had a strong and statistically significant negative correlation with tax revenue collection ($r = -0.6027$, $p < 0.05$), indicating that higher inflation was associated with lower tax revenue collection. In contrast, GDP ($r = 0.3999$, $p < 0.05$) and tax rate reforms ($r = 0.6290$, $p < 0.05$) were positively and significantly correlated with tax revenue collection. The results therefore indicate that periods of increased economic activity and stronger tax rate reforms were associated with higher tax revenue collection, whereas higher inflation was associated with lower revenue collection.

Table 3. Pearson Pairwise Correlation

	TRC	GDP	TRR	INFL
TRC	1.000			
GDP	0.3999*	1.000		
TRR	0.6290*	0.0345	1.000	
INFL	-0.6027*	-0.1619	-0.3125	1.000

Note: *p<0.05

Source: Research Findings

5.3 Regression Results

The regression results presented in Table 4 indicate that the overall model was statistically significant ($p < 0.005$), demonstrating that the explanatory variables jointly provide a significant explanation of variations in tax revenue collection. The model explained 61.09% of the variation in tax revenue collection ($R^2 = 0.6109$), indicating substantial explanatory power, with the remaining 38.91% attributable to factors outside the model. Furthermore, GDP had a positive and statistically significant effect on tax revenue collection ($\beta = 0.6077$, $p < 0.05$), implying that an increase in economic activity is associated with increased tax revenue collection. This finding is consistent with Nguvava and Kadenge (2024) and Anastasiou et al. (2024), who similarly reported a positive relationship between economic growth and tax revenue collection .

The findings further revealed that tax rate reforms had a positive and statistically significant effect on tax revenue collection ($\beta = 5.1804$, $p < 0.05$). This indicates that improvements in tax rate policies and their implementation are associated with enhanced government revenue mobilization in Kenya. The finding suggests that well-designed tax rate reforms can strengthen revenue collection by improving taxpayer compliance, broadening the effective tax base, and enhancing the efficiency of the tax system. This result is consistent with previous empirical evidence reported by (Kassaw, 2023; Onatuyeh, 2025; Shen et al., 2021) , who found a positive association between tax reforms and tax revenue collection. The finding further supports the Optimal Taxation Theory, which posits that appropriately designed tax policies can enhance revenue mobilization while accounting for taxpayers' behavioural responses and economic activity.

Furthermore, the findings revealed that inflation had a negative and statistically significant effect on tax revenue collection ($\beta = -13.6991$, $p < 0.05$). This indicates that rising inflation is associated with declining tax revenue collection, as persistent increases in the general price level reduce purchasing power, constrain economic activity, and erode the real value of tax receipts. Inflation may also create difficulties in tax compliance and reduce the purchasing power of revenue collected where there are delays between tax assessment and collection. The finding is consistent with Nalyanya et al., (2020); Simiyu. et al.,(2020),who similarly reported a negative relationship between inflation and tax revenue collection.

Finally, the interaction between tax rate reforms and inflation had a negative and statistically significant effect on tax revenue collection ($\beta = -1.007915$, $p < 0.001$). This finding indicates that inflation significantly moderates the relationship between tax rate reforms and tax revenue collection, such that higher inflation weakens the revenue-enhancing effect of tax rate reforms. Although tax rate reforms can improve revenue mobilization, persistent inflation may erode the real tax base, reduce purchasing power, distort economic activity, and diminish the real value of tax receipts, thereby limiting the expected revenue gains from such reforms. The finding is consistent with Fisseha, (2025) and Mihaljek (2023), who demonstrate that persistent inflation can erode the real tax base and distort fiscal outcomes. The result further supports the Olivera–Tanzi Effect Theory, which posits that inflation reduces the real value of tax revenues during the lag between tax assessment and collection, thereby weakening the effectiveness of revenue mobilization.

Table 4. Regression Results

Source	SS	df	MS	Number of obs =	31
				F(3, 27) =	14.13
Model	47.3381175	3	15.7793725	Prob > F =	0.0000
Residual	30.1484204	27	1.11660816	R-squared =	0.6109
				Adj R-squared =	0.5677
Total	77.4865379	30	2.5828846	Root MSE =	1.0567

TRCF	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
GDP	.6076956	.1930409	3.15	0.004	.2116084	1.003783
TRR	5.180397	.987399	5.25	0.000	3.154422	7.206373
INFL	-13.69905	5.390883	-2.54	0.017	-24.78017	-2.617933
TRR*INFL	-1.007915	.4506885	-2.24	0.034	-1.932651	-.0831784
_cons	4.86944	.5837078	8.34	0.000	3.671771	6.06711

Source: Research Findings

7. Discussion

The findings demonstrate a positive and significant relationship between tax rate reforms and tax revenue collection, underscoring the importance of tax policy design in strengthening domestic revenue mobilization. This result is consistent with Mansour and Zolt (2022),who argue that appropriately designed tax rate reforms can enhance revenue by improving tax-system efficiency, strengthening compliance incentives, and reducing opportunities for tax avoidance. Similarly, Fenochietto and Pessino (2023) find that improvements in tax policy design, including tax rate adjustments, strengthen tax effort and fiscal capacity. The finding is also consistent with Optimal Taxation Theory, which emphasizes designing tax systems that mobilize sufficient revenue while minimizing distortions to economic activity. Importantly, the positive effect does not imply that higher tax rates necessarily generate higher revenue. Rather, revenue performance depends on the design, structure, and implementation of tax rates, alongside compliance, enforcement, and the sustainability of the tax base. Appropriately structured rates can encourage voluntary compliance and support revenue mobilization, whereas excessively high rates may discourage economic activity and increase incentives for avoidance and evasion. The findings therefore suggest that well-designed and effectively administered tax rate reforms can strengthen tax revenue collection and fiscal capacity while maintaining incentives for productive economic activity.

The interaction between tax rate reforms and inflation had a negative and statistically significant effect on tax revenue collection, indicating that inflation weakens the effectiveness of tax rate reforms in enhancing revenue mobilization. Although tax rate reforms are intended to strengthen government revenue, their benefits may be diminished under inflationary conditions. Rising inflation erodes household purchasing power and increases production and operating costs, thereby reducing disposable income and business profitability. Consequently, taxpayers may face greater financial constraints, reducing their capacity and willingness to comply with tax obligations (Nadia, 2020). Furthermore, tax rate adjustments implemented during periods of high inflation may be perceived as imposing an excessive fiscal burden, potentially increasing resistance to taxation, delayed payments, and other forms of non-compliance. These conditions can limit the revenue gains expected from tax rate reforms. The finding is consistent with Adam Smith's Canons of Taxation, particularly convenience and equity, which emphasizes fair taxation without imposing undue hardship. It also supports the Olivera–Tanzi Effect Theory, which explains that inflation erodes the real value of tax revenue during the lag between assessment and collection. The finding also supports Meita et al. (2023) , who emphasize the importance of macroeconomic stability in determining the effectiveness of fiscal reforms. Tax rate reforms are therefore more likely to achieve their intended revenue outcomes when implemented under relatively low and stable inflation, where economic activity, taxpayer capacity, and compliance are less constrained. The findings highlight the importance of considering prevailing inflationary conditions when designing and implementing tax rate reforms to enhance revenue mobilization without undermining taxpayer compliance.

8. Policy and Practical Implications

The findings have important policy and practical implications for tax policy and revenue administration in Kenya. First, policymakers should consider prevailing inflationary conditions when designing and implementing tax rate reforms. Since inflation weakens the revenue-enhancing effect of tax rate reforms, major tax rate adjustments should be carefully calibrated during periods of high inflation to avoid placing excessive financial pressure on households and businesses. Where necessary, reforms should be accompanied by measures that protect the purchasing power of taxpayers and maintain the viability of the tax base.

Second, the findings underscore the need for greater coordination between tax policy and macroeconomic management. The National Treasury and other relevant government agencies should integrate inflation considerations into tax-reform planning and revenue projections. Maintaining relatively stable inflation can create a more conducive environment for tax reforms to translate into improved revenue collection.

Third, the Kenya Revenue Authority (KRA) should strengthen taxpayer support and compliance mechanisms during inflationary periods. Simplified filing procedures, timely taxpayer communication, responsive dispute resolution, and targeted compliance assistance can reduce the administrative and financial burden associated with tax obligations and encourage voluntary compliance.

Finally, tax reforms should focus not only on changes in tax rates but also on broadening the tax base, improving tax administration, reducing compliance costs, and strengthening enforcement. Such complementary measures can help sustain revenue collection when inflation constrains the effectiveness of rate-based reforms. Overall, the findings suggest that the success of tax rate reforms depends not only on their design but also on the macroeconomic environment in which they are implemented.

9. Conclusions and Recommendations

The study concludes that tax rate reforms have a positive and statistically significant effect on tax revenue collection in Kenya, indicating that well-designed and effectively implemented reforms can strengthen government revenue mobilization. However, inflation has a negative and statistically significant moderating effect, implying that rising inflation weakens the revenue-enhancing effect of tax rate reforms. Consistent with the Olivera–Tanzi Effect Theory, inflation can reduce the real value of tax receipts and constrain taxpayer capacity through declining purchasing power and increased business costs. The findings therefore demonstrate that the effectiveness of tax rate reforms depends partly on the prevailing macroeconomic environment.

Based on these findings, the study recommends that policymakers consider inflationary conditions when designing and implementing tax rate reforms and avoid imposing excessive tax burdens during periods of high inflation. The National Treasury and KRA should strengthen coordination between tax policy and macroeconomic management, while improving taxpayer support, compliance mechanisms, and tax administration. In addition, tax rate reforms should be complemented by broadening the tax base, strengthening digital tax administration, reducing tax evasion, and improving compliance, thereby enhancing sustainable revenue mobilization even under changing inflationary conditions.

Future research could examine the moderating role of other macroeconomic factors, such as exchange rate fluctuations, unemployment, and GDP growth, in the relationship between tax rate reforms and tax revenue collection in Kenya. Further studies could also extend the analysis to other East African Community countries to establish whether the findings hold across different economic and institutional contexts. Additionally, future research could investigate the differential effects of specific tax reforms, including corporate income tax, value-added tax, and excise duty reforms, on revenue mobilization.

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