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Influence of Tax Administration on Public Revenue Growth in Western Region of Kenya

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Abstract Kenya has seen difficulties in managing its budgets throughout the years, leading to excessive borrowing from both local and foreign sources. Studying the influence of tax administration on public revenue growth in western Kenya was the primary goal of the research. This study is based on the optimum income tax theory. The Kakamega, Bungoma, and Busia regional offices of KRA were the primary subjects of the investigation. A total of 120 individuals from the Kenya Revenue Authority took part in the study using census technique. Closed- and open-ended questionnaires were utilized for the study. The data was summarized using descriptive statistics for easy understanding. Measures of skewness and kurtosis were among these statistics, along with frequencies and mean percentages. Regression analysis with many variables was also used. By using tables, charts, and graphs, the data was examined to facilitate easier comparisons. By combining descriptive and regression analysis, the researchers were able to assess the whole model's statistical significance. Furthermore, the degree of association between the variables was determined by doing a correlation study. The study's conclusions demonstrated that the Kenya Revenue Authority had a significant role in the increase of official income in Kenya as a result of tax reforms. Improved tax administration contributed to a rise in Kenya's government coffers. When it comes to expanding the tax base, there should be a greater emphasis placed on improving tax administration. This would make it possible to lower the present tax rates without having an effect on the amount of money the government brings in. According to the article, more research should be conducted on various tax policy alterations that have an effect on the growth in average public income.

Keywords: *Tax administration, Revenue growth, Kenya Revenue Authority*

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1. Introduction

Tax administration refers to the role of managing, overseeing, guiding, and monitoring the implementation and enforcement of taxation laws and associated regulations at the government, national, or state level. Implementing new legislation to regulate taxes, implementing changes in tax administration, and reducing opportunities for tax evasion are key factors that contribute to enhancements in tax revenue collections [1].

Internationally, tax changes have been implemented in order to generate more income that may be used to fund public spending on social welfare and services. The financial and economic crisis in most countries has led to a decline in public budgets in most States. The inadequacy of tax system in terms of conforming to the various principles of taxation is the root cause of the need for tax reform. Tax reforms have garnered a lot of attention recently [2]. This is because of the growing financial challenges that are being experienced in both developing countries and established nations. In the realm of public finance, there is a rising interest in tax reform as a strategy to raise tax revenues. This interest is especially prevalent among academics and international organizations. This is due to the fact that nations are seeing a decrease in external aid overall. Tax reform is a multifaceted process that include both reductions in tax rates and modifications to increase the tax base. Theoretically, it is assumed that these adjustments will, in the long term, give rise to increased economy size; nevertheless, the magnitude of this influence and the relevance of it are both up to debate. The current worldwide crisis has significantly burdened the influx of foreign resources, compelling these nations to prioritize the mobilization of home resources. It is often observed that in many developing countries, fiscal governance is primarily measured by the extent to which a

government can reduce its fiscal deficit, rather than focusing on improving the tax system to generate more income and avoid deficits [3].

As a result, fiscal measures have always been motivated by the need to restore public finances to a stable trajectory. In regards to tax policy, most Member States are facing the difficulty of increasing tax income to contribute more to overall consolidation efforts. Additionally, they must address the additional issues of supporting economic recovery and promoting sustainable development in the medium and long term. The excessive deficit procedure (EDP) has been implemented in EU and the majority of these governments are required to correct their excessive deficits within the calendar year. According to Kenya Revenue Authority, [4] the majority of member states anticipate achieving considerable fiscal consolidation via the adoption of purposeful tax policies.

Many economies worldwide are driven by an insatiable pursuit of economic growth and development, which motivates them to enhance income creation. The production of money by the government is absolutely necessary as it hastens the progression of economy leading to growth. It is the responsibility of governments to charge taxes in order to support public services, to encourage equitable distribution of wealth and income, and to restrict certain economic activity such as smoking cigarettes. According to Bergman, M. S. [5] and KIPPRA [6], the only technique that is practically feasible in assembling resources to pay expenditures on services as well as goods used by the populace is revenue collection via taxes. It is the responsibility of governments to offer its citizens with a variety of services, including education, healthcare, water supply, security, road infrastructure, and social security.

According to Slemrod, J. [7]. the United States of America successfully adopted a big tax law in 1986, which resulted in a notable reduction in the highest tax rate. Taxes on firm profits revenues declined from 10% to 5% by the Georgia Tax Centre a year ago, in 2009. The revised tax legislation implemented a uniform tax rate for all corporate operations, eliminating any preferential rates or benefits. This streamlined taxpayer obligations and significantly reduced in-person interactions between tax officials and taxpayers. The tax collections in Georgia have grown by almost four times due to the combined impact of improvements in tax policy and administration. The proportion of tax revenue relative to the GDP had a significant increase, rising from 12% to 25%. This occurred despite a decrease in tax revenue generated from international commerce, which may be attributed to the reduction in import duty rates.

According to Kefela, only a small number of developing nations have successfully implemented tax systems that produce sufficient income and effectively minimize tax-related misallocations. In the majority of other nations, there has been a lack of success in securing the funding for public spending, and the tax systems have not aligned with the aims of economic policy. According to Latif et al., the changes in tax policy thus far have been minor in terms of the amount of money collected, the types of revenues generated, and the alignment of tax rates with predictions.

Ghana, for instance, has enacted comprehensive tax adjustments that include a vital policy instrument targeted at encouraging economic growth and relieving poverty Andreoni, J., Erard, B. & Feinstein, J. [8]. Furthermore, Ghana has also implemented these improvements. When it comes to improving the country's overall fiscal well-being and revenue collection, Ghana's considerable improvements in tax administration and fiscal policies have been among the most important factors. The rise in revenue has mainly been attributed to changes in the tax structure, improvements to the administration of taxes, and an expansion of the tax base. The Ghana administrative tax reforms aimed at improving working conditions and employment prospects by giving operational autonomy to the revenue institutions and separating them from the Civil Service. This was done in order to enhance efficiency. One of the most important aspects of the administrative reform that took place in Uganda was the fact that the present revenue department was moved from the Ministry of Finance to a revenue authority that had some degree of autonomy. An independent Board of Directors is in charge of overseeing this power.

The tax changes in Ethiopia were implemented after the liberalization in 1992, which resulted in a significant increase in investment. According to Slemrod, J. [7]. the region's existing resources are insufficient to fund the ever-increasing investment. It was during this period of turbulent political transition that savings saw a considerable decline in 1990 and 1991. After then, there was a drop that continued until the end of the 1990s, which was followed by a partial recovery that occurred later on. The expansion of government savings was most noticeable in the 1990s. Given this, it would seem that the government's fiscal policy is motivating in this regard. The government nevertheless ran a shortage of around 10% of GDP every year over the recent decade since domestic saving was much lower than investment [9].

The present administration has had some success in fiscal policy, mostly by generating money. Earnings and profit taxes, goods and services taxes, and foreign trade taxes are the three main components of Ethiopia's tax system. A large portion of East African economies operate in the shadows, making it difficult to collect taxes from the general public.

The Kenyan Government considers economic progress to be the primary factor driving tax changes. It is required to perform a large number of simulations to examine the effect of tax changes on economic development. The concept of tax reform involves not only the specific concerns that are related with the design and administration of tax systems, but also the more general issues that pertain to economic policy. Over the course of the last twenty years, Kenya's tax structure has often undergone a process of reform. A new VAT has been put into place, and the country's external tariffs are now in line with those of its East African neighbors. These changes have been made in relation to policy. Rate schedules have been simplified and made less complicated. Alterations have been made to both the administrative structure and the institutional structure simultaneously. Consolidating the handling of tax collection was an important step that occurred in the year 2020 with the foundation of the KRA, which was a semi based autonomous structure. Among the several sources of revenue that the Kenyan government receives, the most important one is taxation. The majority

of the money that the government received between 1995 and 2004 came from taxes.

Furthermore, throughout the course of the last four decades, the economy has undergone a number of significant structural shifts. With a tax-to-GDP ratio that is more than twenty percent, Kenya stands out among other countries in Sub-Saharan Africa owing to the robust tax revenue generating it does. Consequently, Kenya has been able to finance a substantial chunk of the budget, even if there is a little rise in profits over the course of the year [10]. asserts that Kenya, along with a great number of other developing nations, has encountered and continues to encounter the normal difficulties that are associated with the tax systems of developing countries. These relate to tax systems that are difficult to maintain and comply with because of their structure and rates, which are both complicated. This results in low tax productivity since these systems are insensitive to both the expansion of the economy and the discretionary tax measures that are implemented. Furthermore, the method of tax collecting results in a negligible amount of income while simultaneously producing enormous economic problems. It is also possible for people and enterprises to be treated unequally when they are in identical circumstances, and it demonstrates prejudice in terms of the administration and enforcement of tax laws, favoring those who are able to circumvent the system. As a consequence of this, in order for the government to improve its revenue collection, it is necessary for it to update its collection strategy and execute the necessary tax modifications, which will thus result in a bigger tax base.

The primary goal of tax changes is to promote market liberalization, which in turn encourages foreign direct investment. Consequently, there has been a decrease in the tariffs imposed by customs authorities on various sorts of transactions. Ever since the establishment of KRA, the accumulation of tax income has shown consistent growth. Furthermore, the management of taxes has been enhanced. Nevertheless, the tax income has consistently failed to meet the set objective. This has led to a rise in government borrowing, which has had a detrimental effect on economic growth. It is necessary to determine if tax changes have played key role in the rise of tax collections, given the consistent growth of the Kenyan budget.

Statement of the Problem

The government's inability to achieve its yearly income objectives via the Kenya Revenue Authority has necessitated the exploration of methods to enhance tax collection. In financial 2018/2019 KRA collected 1,440.21B while in 2019/2020 it collected 1,427.51B which was a decrease of 0.88%. In 2020/2021 it collected 1,484.76B which was a 4.01% increase while in the financial year 2021/2022 was 1,837.22B which was 23.74% increase. However, in financial year 2022/2023 KRA collected 1,738.95B which was 5.35% decrease [10]. This implies, growth of revenue collected between 2018 and 2023 has not been even for the last five years.

Irungu, G. [11] analyzed tax policy plans on tax performance in Ethiopia. The study emphasized the positive effects of implementing progressive tax plans. Similarly, Ameth pointed out that tax based reforms significantly increased tax revenue performance in Senegal. However, Dziadkowski, D. [12] revealed that despite the implementation of various tax policy reforms aimed at increasing revenue, the overall impact on revenue growth was found to be insignificant in Tanzania. Adeyemo and Oladejo found that while tax policy reforms had been implemented to enhance revenue generation, the actual impact on public revenue growth was insignificant in Nigeria. Furthermore, Kajubi found evidence suggesting that certain tax policy reforms, particularly those related to tax exemptions and incentives, had a negative impact on revenue growth in Uganda. Similarly, Oloyede and Olojede found that certain tax policy reforms, such as tax rate reductions and tax holidays, negatively impacted revenue mobilization efforts in Nigeria.

Karingi, S. N., Wanjala, B., Kamau, A., Nyakang'o, E., Mwangi, A., Muhoro, M. & Nyamunga, J. B. [13]. examined influence of tax based policy alignment on revenue generation in Kenya. The study recommended that future researches should focus on primary data or a mixes primary data with secondary data so as to recognize qualitative elements might have been overlooked. While examining KRA southern region of Kenya Mwidadi recommended further studies in other regions on tax administration. Further, the study also recommended that further studies should consider other tax reforms apart from tax administration. This study sought to fill the gaps by examining influence of tax administration on public revenue growth in Kenya.

Objectives of the Study

To determine the influence of tax administration on public revenue growth in western region of Kenya.

Research Hypothesis

H_{01}: There is no significant influence of tax administration on public revenue growth in western region of Kenya.

2. Literature Review

Optimum Income Tax Theory

Mirrlees developed the idea of optimal income taxation, which has since been explored by other researchers such as Journal of Public Economics 1(3), 137-156 and O'Brien. In a socio-economic system that upholds equality, income taxes are considered a crucial policy tool. Progressive redistributive taxes is often associated with an individual's income, as some suggest. Given that an individual's economic results are considered indicative of their economic potential, Mirrlees acknowledged that complete equality of society marginal utilities of income is no longer desirable. This is because the tax system designed to attain such equality would need to completely ban undesirable activities. The above statement raises many inquiries on the nature of regulations intended to assess optimal taxation of income, structure of tax schedules, influence of inequality on the development of taxation plans.

According to the optimal taxation theory, the process of designing and putting into action a tax system that, given certain economic conditions, reduces the amount of distortion and inefficiency that occurs in the market equilibrium is essential. Choosing the tax that will lead to

the greatest possible increase in the welfare function of society while taking into consideration a certain set of constraints is the fundamental premise of optimal taxation. According to KIPPRA. [6], the development and implementation of the ideal tax requires an understanding of how to maximize the number of outcomes from a diverse population in a manner that is socially optimal. This is the case in the event that it is not possible to obtain the most favorable result initially and one must instead work toward the second best option. According to Boadway, the theory of optimal income taxation has reached a point of complete development, and there are a number of extremely positive assessments of the subject that can be acquired.

In the classical paradigm introduced by Mirrlees, the theory examines how a benevolent planner, who can only see the pre-tax labor income of individuals with different incomes but similar preferences, might maximize a utilitarian social welfare function. In recent years, the classical framework has been expanded in several ways.

Sorenson states that recent developments in this theory have greatly facilitated its application, perhaps aiding in the analysis of current global tax policy trends. O'Brien observes that economists developed a normative theory of taxation policy that favored a principles-based approach, asserting that an effective tax system should possess certain traits. The tax system ought to efficient, transparent, fair, economical, flexible, widely accepted, and free from corruption. Evidence shows that if the current tax system does not alleviate the social welfare problems associated with different income levels, it becomes necessary to question the viability of maintaining such a system and consider the possibility of making changes. This idea aided the researcher in analyzing the impact of tax administration on the rise of public income.

Literature Review

Revenue administration encompasses the gathering and administration of domestic income, including taxes, customs charges, revenues generated by state-owned firms, and other types of income. The tax administration sector is sometimes seen as being susceptible to corruption owing to the intricate nature of tax legislation, the significant discretionary authority held by tax authorities, and the little penalties imposed. Corruption weakens a nation's tax system and its ability to collect money, leading to substantial losses in income and reduced financing for public services. The reduction in the ratio of taxes to GDP takes place affecting the economy. This is because it leads to the expansion of current economy, the distortion of the tax structure, the undermining of the ethical behavior of taxpayers, and the erosion of public confidence in the institutions of the government [14]. The distinction between administration and policy has been included into the administration of each nation's administration in its entirety. When talking about the role that the KRA plays in the From Van Der Hoek's perspective, it is essential to make a distinction between taxation for administration and taxation policy. It is essential to keep in mind that KRA is in charge of the administration of taxes in Kenya [10], while Treasury is in charge tax policy formulation. In and of itself, the emphasis placed on increasing tax revenue via the use of technological innovations in administration of tax; to depict would be to misrepresent the options that are available to the Kenyan government. The allocation of financial resources, time, and attention towards the Kenya Revenue Authority (KRA) imposes a substantial opportunity cost on the Kenyan government, given the budgetary constraints of the Kenyan economy. These resources have not been allocated to other areas due to the prioritization of tax administration. Furthermore, the Kenyan government and the Kenyan Revolutionary Army (KRA) are being persuaded to consider the possibility of investing significant sums of money on further advancements to the ability of the KRA. A study was carried out by Kotut, S. C. & Menjo, I. K. [15] with the purpose of investigating the impact that taxes have on the generation of revenue in a number of different sectors, including VAT, income tax, import duty and excise duty. A detailed quantification of the impact of tax modifications on the responsiveness VAT and income tax was the objective of the study. Additionally, the research attempted to evaluate flexibility of the tax system. The study looked at the relationship between tax changes and revenue production by using secondary data that had been published before. Regression analysis was employed to estimate buoyancy and elasticity during complete reform, as well as before and after piecemeal/policy changes. The regression analysis indicated that the overall tax in Kenya exhibited inelasticity across the three years. However, it demonstrated buoyancy [16].

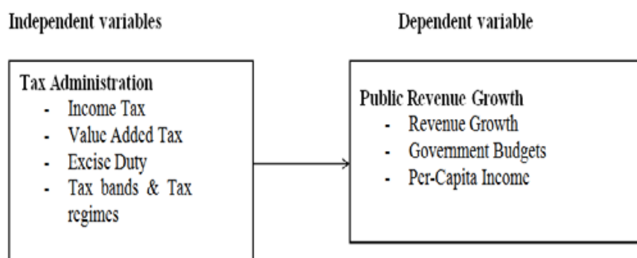
As Kothari, C. R. [17] pointed out influence of reform of tax and economic circumstances on tax collections in Kenya, the country's tax modernization program was initiated in 1986 with the intention of achieving a number of goals, one of which was to enhance revenue collection. The influence that changes in taxation and economic circumstances have on the amount of money collected in Kenya during tax compliance. In this study, a correlational research approach was used. The website of the CBK, the website of the KNBS, the website of Transparency International, and the website of the World Bank were among the secondary sources from which data was collected. The data collection period spanned from 2010 to 2020! Since 2010, the trend studies have shown that there has been a consistent improvement in the corruption index in Kenya, which has been accompanied by an increase in the amount of information collected via taxes. The OLS results indicate 91.6% of the amount of variance in revenue tax. The correlation between reforms and tax revenues was negative and substantial, indicating that reforms had a detrimental effect on tax revenues. Conversely, tax revenues were positively and significantly influenced by factors other than reforms. Additionally, corruption had a favorable impact on tax revenues, although this impact was found to be minor. The research found that tax changes have had a detrimental effect on tax revenues in Kenya, although economic circumstances (Gross Domestic Product) have had a favorable influence on revenues.

Government of Kenya (GoK) [10]. examined tax system as part of their research. The purpose of this analysis was to assess the effectiveness of the system within the context of changes to the tax system. Although the findings suggest that the modifications to taxation system had a positive effect on the whole tax system as

well as on the tax burdens of individuals, the results also reveal that the impacts of the reforms were not always predictable. The adjustments had a more substantial impact on direct taxation in comparison to non direct taxes, which indicates that revenue loss continues to be a serious problem for non direct taxes with regard to the government.

The KRA responses to challenges experienced throughout the execution of reforms were the subject of a study that was carried out by Bergman, M. S. [18] of Kenya. The research aimed to determine the manner in which KRA executed the CRM program, the obstacles encountered during its implementation, and the Authority's response to those obstacles. The report identified the primary obstacles faced by KRA as aversion to change, insufficient expertise, inadequate resources, and a deficient telecommunications infrastructure.

Conceptual Framework



Conceptual Framework Adopted from KRA (2022)

Figure 1. Conceptual framework

The relationship between tax administration, the independent variable, public revenue growth and the dependent variable was established by tax administration measured by income tax, value added tax, excise duty, tax bands and tax regimes. Public revenue growth was measured by revenue growth, government budgets and per-capita income

3. Methodology

Study Area

The research took place at the Kenya Revenue Authority offices situated in the Western region of Kenya, encompassing Kakamega County, Bungoma County, and Busia County.

Research Design

The study utilized a descriptive research design. According to Mugenda and Mugenda, a descriptive research design is distinguished by its adaptability and complete analysis of all aspects of a problem, which allows it to capture all of the characteristics of the population that is being studied. The major purpose of using the descriptive design approach is to evaluate the degree of accuracy shown by the variables. In light of the fact that descriptive design places a strong focus on performing in-depth research in order to uncover the relationship between variables, its implementation is absolutely warranted. Descriptive research is limited to the discovery of factual information and may lead to the development of fundamental concepts and answers to critical challenges. It encompasses more than just gathering information and includes actions such as measurement, categorization, examination, and explanation [19]. The researcher deemed this design suitable due to the study's goal, topical scope, researcher engagement, data collection timeframe, kind of data, and the intended analysis.

Target Population

One hundred and twenty employees from the Western region of the Kenya Revenue Authority were included in the designated population. The following workers were included in the target audience: risk managers, officers in charge of internal audits, officers in charge of information and communication technology, officers in charge of finances, officers in charge of office administration, officers in charge of logistics, managers of compliance and quality, and managers of human resources. The attention of this specific demographic was motivated by the fact that KRA requires exceptionally proficient personnel to fulfill their individual responsibilities and accomplish vision 2030.

Table 1. Sampling Frame

Officer Category/Region office	Kakamega	Bungoma	Busia	Total
Risk managers	1	1	1	3
Internal Audit officers	6	5	6	3
Information communication technology officer	2	2	1	5
Finance Officers	2	2	2	6
Administrative Officers,	10	10	12	16
Logistic Officers,	6	6	7	12
Compliance and Quality managers	5	5	6	7
Human Resource Managers	1	1	1	3
Accountants	7	6	6	19
Total	40	38	42	120

Source: KRA Offices Western Region of Kenya 2022

Sampling Framework

On the other hand, Cooper and Schindler state that the sample frame should only include a complete and precise list of all of the people who are a part of the population. The sample frame for this research was obtained from the regional offices of KRA in the three counties. Purposive sampling was used due to the fact that the majority of the workers had the essential information required for the investigation. All individuals below were consequently used.

Krejcie and Morgan formular was be used to determine the population

$$s = \frac{X^2 \text{ NP (1-P)}}{d^2 (N-1) + X^2 P(1-P)}$$

Where

S is the desired sample size

X^2 is the Table 3 value of chi-square for one degree of freedom at desired confidence level which is 1.96x 1.96= 3.841

N is the population size

P is the population proportion assumed to be 0.5 since this was provide maximum sample size and d is the

degree of accuracy expressed as a proportion 0.05

$$S = \frac{3.8416 \ X \ 120 \ X \ 0.5 \ (1-0.5)}{0.05^2 \ (120-1) + 3.8416 \ X \ 0.5(1-0.5)} = 92 \ \text{Respondents.}$$

Data collection instruments

In order to achieve the objectives of the study, the data collected from the questionnaire was used to respond to the research questions. since of the constraints of both time and resources, the collection of data was carried out via the use of a questionnaire. This was done since the questionnaire is a technique that is both extremely efficient and simple to gather data. A questionnaire is a form or document that has been methodically designed and has a series of questions that have been purposefully formulated. The purpose of a questionnaire is to collect responses from participants. Questionnaires are structured instruments that consist of a predetermined set of questions, with a predetermined language for both the questions and the possible responses. The Kenya Revenue Authority's top management, middle level management, and operational personnel were all surveyed using questionnaires that had structured questions based on a Likert scale with five points. The data acquired was collected from all three regional offices.

Data Analysis and Presentation

Analyses of descriptive statistics were performed on the data. All of the raw data were subjected to descriptive statistics, which included the likes of the mean, the standard deviation, and the percentage. We made use of the statistical methods of correlation and linear regression in order to draw conclusions. SPSS version 21 for Windows was the specific version of the computer program that was used in the research project. Percentages facilitated the researcher in depicting the dispersion of measurement. Inferential statistics involves the examination, comprehension, and determination of conclusions based on obtained findings [20]. Estimation was conducted using multiple regression and correlation analysis to anticipate the impact of tax policy changes (independent variables) on the increase of public income in Kenya (dependent variable).

The following model was used.

$Y = \beta 0 + \beta_1 X_1 + \varepsilon$

Where;

Y= Public revenue growth$\beta 0$=Constant

βi=Coefficient for X_i)

X_1=Tax Administration

ε=error term.

4. Results and Discussion

Table 2. Reliability of Research Instruments

Variable	No of Items	Items deleted	Cronbach Alpha	Reliable
Tax administration	8	0	0.765	Yes

Source: Field Data (2023)

With a questionnaire consistency of 0.7, the internal consistency between the items of the instrument was very strong. Consequently, the tool was kept in its original state without any further modifications.

Table 3. Validity, Summary of Factor Analysis

Factors	No of Items	Overall Factor Loading	Item(s) Dropped
Tax administration	8	0.8168	0

Source: Field Data (2023)

An overarching overview of the factor analysis conducted on all variables. All the elements were kept according to the standard criterion of a minimum acceptable factor loading of 40%. The explained variance exceeded 60%, with an overall value of 69.9%, indicating a high level of convergence validity. The sample adequacy was achieved, as shown by a Kaiser-Meyer-Olkin (KMO) value over 0.5, thus 0.8168. According to Wasiams *et al*, a Kaiser-Meyer-Olkin (KMO) value of 0.50 is considered an acceptable level of sample adequacy. Higher values over 0.5 are considered even more desirable.

Table 4. Characteristics of the Respondents

Designation	Frequency	Percent
Finance Officers	28	40.0
Logistic Officers	17	24.3
Internal Audit officers	8	11.4
Risk managers	7	10.0
Compliance and Quality managers	5	7.1
Information communication technology officer	5	7.1
Total	70	100.0

Source: Field Data (2023)

From table, 40.0% (28) of the respondents were finance officers, 24.3% (17) were logistic officers, 11.4% (8) were internal audit officers, 10.0% (7) were risk managers,

7.1% were compliance and quality managers as well as information communication technology officer.

Among the participants in the survey, 2.9% (2) strongly agreed and 48.6% (34) agreed that tax administration improvements in the Kenya income Authority (KRA) had a significant impact on the increase of public income in Kenya. Conversely, 44.3% (31) of the participants somewhat agreed, 2.9% (2) slightly agreed, and 1.4% (1) did not agree at all that tax administration improvements in the Kenya income Authority (KRA) had an impact on the rise of public income in Kenya. The respondents had a high level of agreement with the statement, as shown by a mean of 3.49 and a negligible standard deviation of 0.68.

According to the data shown in the table, 2.9% (2) of the participants strongly agreed and 27.1% (19) agreed to a significant degree that the tax bands established by the Kenya income Authority (KRA) have a substantial impact on the increase of public income in Kenya. Conversely, 57.1% (40) of the participants somewhat agreed, 8.6% (6) slightly agreed, and 4.3% did not agree at all that tax bands in the Kenya income Authority had an impact on the rise of public income in Kenya. The respondents exhibited a moderate level of agreement with the statement, as shown by a mean of 3.16 and a negligible standard deviation of 0.79.

Table 5. Descriptive Statistics: Tax administration

Question	5	4	3	2	1	Mean	STD
To what degree do the improvements in the tax administration at the Kenya income Authority (KRA) effect the increase of public income in Kenya?	2.9 (2)	48.6 (34)	44.3 (31)	2.9 (2)	1.4 (1)	3.49	0.68
What is the degree to which tax bands in the Kenya income Authority (KRA) impact the increase of public income in Kenya?	2.9 (2)	27.1 (19)	57.1 (40)	8.6 (6)	4.3 (3)	3.16	0.79
What is the degree to which tax payer regimes and recruiting policies have an impact on the increase of state income in Kenya?	0 (0)	44.3 (31)	47.1 (33)	2.9 (2)	5.7 (4)	3.30	0.79
What is the degree to which the policies regarding the administration of tax returns in the KRA have an impact on the increase of public income in Kenya?	0 (0)	31.4 (22)	57.1 (40)	8.6 (6)	2.9 (2)	3.17	0.70
To what degree do the policies regarding tax remittances and payments at the Kenya income Authority (KRA) impact the increase of public income in Kenya?	5.7 (4)	67.1 (47)	25.7 (18)	0 (0)	1.4 (1)	3.76	0.62
The question is, to what degree does the value-added tax on turnover impact the increase of public income in Kenya?	1.4 (1)	65.7 (46)	31.4 (22)	0 (0)	1.4 (1)	3.66	0.59
What is the degree to which the rates of the Value-Added Tax (VAT) impact the increase of governmental income in Kenya?	1.4 (1)	54.3 (38)	37.1 (26)	2.9 (2)	4.3 (3)	3.46	0.774

N=70; ***5****-Very Great Extent,* ***4****-Great Extent,* ***3****-Moderate Extent,* ***2****-Little Extent and* ***1****-No Extent,* ***S.D****-Standard Deviation*

The survey findings indicated that 4.3% (3) of the participants strongly agreed, while an additional 44.3% (3) agreed that Tax audit measures implemented by the Kenya income Authority (KRA) had a significant impact on the increase of public income in Kenya. Conversely, 44.3% (31) of the participants somewhat agreed, while 7.1% did not agree at all, that the tax audit procedures implemented by the Kenya income Authority (KRA) had an impact on the rise of public income in Kenya. The respondents exhibited a high level of agreement with the statement, as shown by a mean of 3.74 and a negligible standard deviation of 0.44.

The survey findings indicate that 44.3% (31) of the participants strongly agreed that Taxpayer Regimes and recruiting strategies had a significant impact on the increase of public income in Kenya. Conversely, 47.1% (33) of the participants somewhat agreed, 2.9% (2) slightly agreed, and 5.7% (4) did not agree at all that Taxpayer Regimes and recruiting strategies have an impact on the increase of public income in Kenya. The respondents had a modest level of agreement on the statement, as shown by a mean of 3.30 and a negligible standard deviation of 0.79.

Regarding the impact of Tax returns management rules on public revenue growth in Kenya, a significant proportion of the respondents (31.4% or 22 individuals) strongly agreed. Conversely, 57.1% (40) of the participants somewhat agreed, 8.6% (6) slightly agreed, and 2.9% (2) did not agree at all that the Tax returns management procedures in KRA had an impact on the rise of public income in Kenya. The respondents had a moderate level of agreement with the statement, as shown by a mean of 3.17 and a negligible standard deviation of 0.70.

The survey revealed that 5.7% (4) of the respondents strongly agreed and 67.1% (47) agreed that Tax remittance/payment regulations in KRA have a significant impact on the increase of public income in Kenya. of addition, 25.7% (18) of the participants somewhat agreed, while 1.4% (1) did not agree at all that the tax remittance/payment procedures of the Kenya income Authority (KRA) had an impact on the rise of public income in Kenya. The respondents had a high level of agreement with the statement, as shown by a mean of 3.76 and a negligible standard deviation of 0.62.

The findings indicated that 1.4% (1) of the participants strongly agreed and 65.7% (46) agreed to a significant degree that VAT Tax On Turn Over had an impact on the increase of public income in Kenya. In addition, 31.4% (22) of the participants somewhat agreed, while 1.4% (1) did not agree at all, that the VAT Tax On Turn Over had an impact on the increase of public income in Kenya. The respondents exhibited a high level of agreement with the statement, as shown by a mean of 3.66 and a negligible standard deviation of 0.59.

Finally, a mere 1.4% (1) of the participants strongly agreed, while 54% (38) agreed significantly, that VAT tax rates have a substantial impact on the rise of public income in Kenya. Furthermore, 37.1% (26) of the participants somewhat agreed, 2.9% (2) slightly agreed, and 4.3% (3) did not agree at all that VAT tax rates had an impact on the rise of public income in Kenya. The respondents had a modest level of agreement with the statement, as shown by a mean of 3.46 and a negligible standard deviation of 0.774.

Table 6. Descriptive Statistics: Public revenue growth

Question	5	4	3	2	1	Mean	S.D
What is the extent to which KRA reforms influence public revenue growth in Kenya	4.3 (3)	64.3 (45)	31.4 (22)	0 (0)	0 (0)	3.73	0.54
What is the extent to which KRA reforms influence Government budgets as an aspect of public revenue growth in Kenya	1.4 (1)	75.7 (53)	22.9 (16)	0 (0)	0 (0)	3.79	0.45
What is the extent to which KRA reforms influence Per-capita income as an aspect of public revenue growth in Kenya	0 (0)	74.3 (52)	25.7 (18)	0 (0)	0 (0)	3.74	0.44
What is the extent to which KRA reforms influence Gross fixed capital formation as an aspect of public revenue growth in Kenya?	0 (0)	40 (28)	60 (42)	0 (0)	0 (0)	3.40	0.49
What is the extent to which KRA reforms influence Gross savings rate as an aspect of public revenue growth in Kenya	2.9 (2)	52.9 (37)	42.9 (30)	1.4 (1)	0 (0)	3.57	0.58
What is the extent to which KRA reforms lead to improved tax collections with growth of public revenue as a result of tax policies	1.4 (1)	70 (49)	28.6 (20)	0 (0)	0 (0)	3.73	0.48
What is the extent to which KRA reforms results to improve gross savings rate with growth of public revenue as a result of tax policies	2.9 (2)	65.7 (46)	31.4 (22)	0 (0)	0 (0)	3.71	0.51
What is the extent to which KRA reforms facilitate achievement of public service targets with growth of public revenue as a result of tax policies	2.9 (2)	50 (35)	47.1 (33)	0 (0)	0 (0)	3.56	0.555

*N=70; **5**-Very Great Extent, **4**-Great Extent, **3**-Moderate Extent, **2**-Little Extent and **1**-No Extent, **S.D**-Standard Deviation*

Among the participants in the survey, 4.3% (3) strongly agreed and 64.3% (45) agreed that KRA changes had a significant impact on the rise of public income in Kenya. Conversely, 31.4% (22) of the participants somewhat agreed that KRA changes had an impact on the increase of public income in Kenya. The respondents exhibited a high level of agreement with the statement, as shown by a mean of 3.73 and a negligible standard deviation of 0.54.

According to the data provided in the table, 1.4% (1) of the participants strongly agreed, and 75.7% (53) agreed to a large degree, that KRA changes have a significant impact on government budgets as a means of increasing public income in Kenya. Conversely, 22.9% (11) of the participants somewhat agreed that KRA changes had an impact on Government finances, namely in terms of increasing public income in Kenya. The respondents had a high level of agreement with the statement, as shown by a mean of 3.79 and a negligible standard deviation of 0.45.

The survey findings indicated that 74.3% (52) of the participants strongly agreed that KRA changes had a significant impact on the rise of per-capita income, which is a component of public revenue in Kenya. Conversely, 25.7% (18) of the participants somewhat agreed that KRA changes had an impact on the per-capita income, which is a component of public revenue growth in Kenya. The respondents had a high level of agreement with the statement, as shown by a mean of 3.74 and a negligible standard deviation of 0.44.

The survey findings indicate that 40% (28) of the participants strongly agreed that KRA changes had a significant impact on the increase of Gross Fixed Capital Formation, which is a component of public revenue growth in Kenya. Conversely, 60% (42) of the participants somewhat agreed that KRA changes had an impact on Gross fixed capital creation, which is a component of public revenue growth in Kenya. The respondents exhibited a modest level of agreement with the statement, as shown by a mean of 3.40 and a negligible standard deviation of 0.49.

Regarding the impact of KRA changes on the Gross savings rate, a significant proportion of respondents (2.9% or 2 individuals) agreed to a very high degree, while a majority (52.9% or 37 individuals) agreed to a high degree. Conversely, 42.9% (30) of the participants somewhat agreed, while 1.4% (3) agreed to a lesser level, that changes by the Kenya income Authority (KRA) had an impact on the Gross savings rate, which is a factor in the increase of public income in Kenya. The respondents had a high level of agreement with the statement, as shown by a mean of 3.57 and a negligible standard deviation of 0.58.

The survey revealed that 1.4% (1) of the respondents strongly agreed and 70% (49) agreed that KRA changes significantly contribute to enhanced tax collections, leading to increased public income via effective tax policy. Furthermore, a significant proportion of the respondents (28.6% or 20 individuals) expressed a moderate level of agreement with the positive impact of KRA changes on tax collections. They believed that these reforms contribute to the increase of public income via the implementation of effective tax policies. The respondents exhibited a high level of agreement with the statement, as shown by a mean of 3.73 and a negligible standard deviation of 0.48.

The findings indicated that 2.9% (2) of the participants strongly agreed and 65.7% (46) agreed to a significant degree that KRA changes lead to an increase in the gross savings rate, as a consequence of tax policies resulting in the expansion of public income. Furthermore, 31.4% (22)

of the participants expressed a moderate level of agreement with the positive impact of KRA changes on the gross savings rate. These reforms are expected to lead to an increase in public income via the implementation of tax policy. The respondents exhibited a high level of agreement with the statement, as shown by a mean of 3.71 and a negligible standard deviation of 0.5.

Finally, a total of 2.9% (2) of the participants strongly agreed, while 50% (35) agreed, that KRA changes significantly contribute to the attainment of public service objectives, leading to an increase in public income via tax policies. Furthermore, a significant proportion of the respondents (47.1% or 33 individuals) expressed a moderate level of agreement about the facilitation of public service aims via KRA changes. This facilitation is expected to lead to an increase in public income as a consequence of tax policies. The respondents had a high level of agreement with the statement, as shown by a mean of 3.56 and a negligible standard deviation of 0.555.

Table 7. Multiple Correlation Matrix

		Tax Administration	Public Revenue Growth
Tax Administration	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	70	
Public Revenue Growth	Pearson Correlation	.724**	1
	Sig. (2-tailed)	.000	
	N	70	70

Source: Field Data (2023)

Table 8. Regression Results of Tax administration on Public Revenue Growth

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724[a]	.524	.517	.20135

a. Predictors: (Constant), Tax Administration

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.030	1	3.030	74.728	.000[b]
	Residual	2.757	68	.041		
	Total	5.787	69			

a. Dependent Variable: Public Revenue Growth
b. Predictors: (Constant), Tax Administration

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	2.063	.186		11.118	.000
	Tax Administration	.465	.054	.724	8.645	.000

a. Dependent Variable: Public Revenue Growth

Source: Field Data (2023)

The data presented in Table 4.14 indicates that there is a positive correlation between the administration of taxes and the rise of public income in the western region of Kenya. At a confidence level of 95%, this correlation is statistically significant since the coefficient is 0.724 and the p value is less than 0.05. This indicates that the correlation is statistically significant. Therefore, an increase in the administration of taxes would lead to a proportional increase in the growth of public revenue in the western region of Kenya.

The findings demonstrated a statistically significant and positive correlation between Tax administration and the rise of public income in the western area of Kenya. The tax administration was responsible for 52.4% (R2 = 0.524) of the variability in the rise of public income in the western area of Kenya. Hence, tax administration plays a crucial role in forecasting the increase in public income in the western area of Kenya.

The results indicated a positive, linear, and statistically significant link (p-value < 0.05) between tax administration and the rise of public income in the western area of Kenya. The regression coefficient (B) was 0.465, the ANOVA test yielded an F-value of 74.728, and the t-test value was 8.645. The results are represented in the following model:

$Y = \beta 0 + \beta_1 X_1 + \varepsilon$

Where Y= public revenue growth in western region of Kenya,

β_0=1.280 (constant)

β_1= 0.465

X_1= Tax administration

Replacing in the equation above, the model becomes: $Y = 2.063 + 0.465X_1$

The constant was found to have a coefficient of 2.063 and a p-value of 0.000, as shown by the equation presented above. Taking everything into consideration, it can be deduced that the increase in public income in the western region of Kenya would be 2.063 if there was no tax administration. Significant statistical evidence (P<0.05) indicates that there was a rise in the public income. A beta value of 0.465 was found for the administration of taxes, on the other hand. A one percent improvement in tax administration results in a huge 46.5% increase in public revenue in the western region of Kenya, provided that all other parameters stay same. These results are consistent with the research conducted by Muturi (2017), which investigated the consequences of tax changes. In addition to determining the effect that these changes have on the elasticity of the tax system, the purpose of the research was to assess the impact that these reforms have had on the buoyancy of the income tax and the value-added tax. During the course of their investigation, Djankov, S., McLiesh, C. & Schleifer, A., (2010) carried out an examination of the productivity of Kenya's tax structure within the context of changes to the tax system. As a consequence, the findings had a positive impact not just on the overall tax structure but also on the particular taxing of people, with direct taxes being more significantly impacted than indirect taxes.

Hypothesis testing

The study hypothesis one (H_{01}) stated that In the western area of Kenya, the administration of taxes does not have a substantial impact on the rise of governmental income. According to the findings of multiple regression analyses, the process of tax administration had a substantial impact on the expansion of public income in the western area of Kenya ($\beta = 0.354$ at $p<0.05$). Hypothesis one is therefore rejected. A one percent

increase in tax administration was shown to contribute to a 35.4% improvement in the growth of public income in the western area of Kenya, according to the findings.

Conclusion

There exists a noteworthy association between the implementation of tax administration and the expansion of public revenue. An increase of one unit in the management of taxes would result in a significant rise of 0.354 in the growth of public income in the western area of Kenya. It may be deduced from this that an increase in the administration of taxes would lead to an improvement in the growth of public revenue in the western part of this country. These conclusions are backed by a number of empirical research that investigate the link between tax administration and the increase of public income. On the basis of the results of the investigation, the study comes to the conclusion that the Tax administration has an effect on the increase of public income in the western area of Kenya. Robust tax administration measures would result to growth of revenue this was in reference to Tax remittance/payment policies, VAT Tax on Turn Over and tax administration reforms. Therefore, the first null hypothesis was rejected.

Recommendations

The study recommended that KRA should focus on improving tax remittance and payment rules to ensure efficiency and effectiveness in revenue collection. This could involve streamlining processes, providing clearer guidelines, and leveraging technology for easier compliance. Further, the government should allocate resources to strengthen tax administration systems, including training tax officials, improving infrastructure, and implementing modern technology for better tax collection and management.

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