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THE ASSESSMENT OF TAX COLLECTION CHALLENGES ON ECONOMIC GROWTH IN RWANDA. A CASE OF RWANDA REVENUE AUTHORITY (2018-2020)

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ABSTRACT

This study examines the challenges in tax collection faced by the Rwanda Revenue Authority (RRA) and their impact on economic growth from 2018 to 2020. Key issues include tax avoidance, evasion, administrative inefficiencies, and a cultural tendency among taxpayers to evade taxes. These challenges have led to reduced national revenues, undermining public service funding and exacerbating economic inequality. The Rwandan government has made efforts to address these problems by investing in human resources, infrastructure, and service delivery. Despite these efforts, persistent tax evasion and avoidance continue to impede economic progress. Using both qualitative and quantitative data, this research identifies the primary hurdles to effective tax collection and their consequences on economic growth. Additionally, it proposes strategies for enhancing revenue collection, such as strengthening enforcement mechanisms, improving administrative efficiency, and enhancing taxpayer education. The regression analysis revealed significant predictors of tax economic growth in Rwanda. The constant term was 0.685 (p = 0.003), indicating a baseline level of economic growth when all predictors are zero. Tax compliance had a positive effect on economic growth (B = 0.113, p = 0.036), with a standardized coefficient (Beta) of 0.105, suggesting that improved tax compliance is associated with increased economic growth. Tax administration was also a significant predictor (B = 0.395, p < 0.001), with a Beta of 0.358, highlighting the importance of effective tax administration in promoting economic growth. Lastly, tax structure showed the strongest impact (B = 0.433, p < 0.001), with a Beta of 0.477, indicating that a well-structured tax system significantly contributes to economic growth. These findings underscore the critical role of robust tax policies and administration in enhancing Rwanda's economic growth. The study demonstrates that tax compliance, administration, and structure are significant predictors of economic growth in Rwanda, with effective tax policies and administration playing crucial roles. Improving these aspects can substantially enhance the country's revenue generation and support sustainable economic development. To enhance economic growth, the Rwanda Revenue Authority should prioritize improving tax compliance through targeted taxpayer education and enforcement measures. Additionally, streamlining tax administration and refining the tax structure can further bolster revenue collection and support sustainable development. Future studies should explore the impact of specific tax policy reforms on *compliance rates and economic growth to provide targeted recommendations for enhancing tax effectiveness. Additionally, examining the role of taxpayer education programs and their influence on reducing evasion could offer valuable insights into improving tax administration and overall economic development.*

Keywords: *Tax Compliance, Tax Administration, Tax Structure, Economic Growth, Revenue Collection, Rwanda Revenue Authority*

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INTRODUCTION

Taxation is currently the principal source of income for many governments all over the world (Kadenge, 2021). The vast majority of countries impose taxes on their citizens in order to boost both the revenue and expenditures of their respective governments. As a result, taxation is an essential component in the process of managing the shift away from external dependency on foreign sources of resources and paying for government spending for development.

It was also found that the tax authority's role in minimizing the tax gap while encouraging voluntary tax compliance is vital to reducing the challenges connected with tax collection. This was one of the findings. In addition, the perception that citizens have of the government as a collection agency is of the utmost importance. As a result, academics disagree on the impact of tax authorities' overall effectiveness on taxpayer compliance behavior (Mohd, 2016).

Regional integration is actually an effort to support long-term economic growth in the nation. This is because the expansion of the global economy is strongly dependent on profits. Earning money is consequently necessary to accomplishing this objective. Given the insufficient nature of capital account liberalization, it is therefore believed that specific governance rules can enhance incomes and promote tax collections in East Africa (Nnyanzi, 2016). Issues with tax administration, such as low taxpayer compliance and weak connections between tax policy and national development goals, as well as issues with tax administration, such as subpar tax authority accountability, have been identified as the three most important and significant barriers to the collection of taxes in the East African Community (EAC) (Peter, 2012). This is one of the most important and significant challenges facing tax collection in the EAC.

As a result of organizations and other taxpayers employing a range of tax evasion tactics to avoid paying taxes or gaining tax advantages, the Rwandan government, through the Rwanda Revenue Authority (RRA), has witnessed an increase in tax evasion incidences for a considerable amount of time. Because of the many negative consequences of tax evasion, for instance, the country's income would be drastically decreased, which would encourage the underground economy and add to economic inequality. According to the presumption that the purpose of tax reform is to strike a balance between economic, compliance, and administrative costs while simultaneously generating sufficient revenue, these have various effects on the growth of the nation depending on the tax base (Carnahan, 2015).

The Rwanda Revenue Authority (RRA) serves as the key case study for this investigation, which aims to analyze the implications of difficulties in tax collection on the expansion of the Rwandan economy. The purpose of this research is to acquire a more in-depth comprehension of the challenges that are preventing Rwanda's economic development in this particular field by delving into the complexities of the tax collection methods that are supplied by the RRA.

Statement of the Problem

During the process of development, the collection of taxes and fees is considered to be one of the most consequential steps. It is of the utmost importance to create the appropriate charging incentives for sustainable private-zone investment, in addition to supporting expenditures for human capital, infrastructure, and service delivery to residents and businesses (World Bank, 2021).

Taxes are widely regarded as a constraint on economic development in sub-Saharan Africa. In many cases, tax regulations are not precisely tailored to the demands of the taxpayer, and they also fail to consider the poor administrative infrastructure of the region. This is due to the fact that it makes it possible to finance public services like as infrastructure, education, healthcare, and justice, all of which are essential for progress and growth. However, taxes also have an effect on people's choices about their work, education, and savings, as well as their choices regarding investments, jobs, and firm innovation (Gbato, 2017). This holds true for organizations as well as individuals. Pertaining to the Rwandan context, it is critical to emphasize that tax evasion and avoidance constitute a fundamental obstacle confronting the nation's tax collection infrastructure. According to this point of view, a country that has a problem with tax evasion is more likely to have a poor yielding investment mix. This would lead to sluggish economic growth and would have a negative impact on firms that are operated by the government. Tax collectors are faced with a number of challenges, some of which include a shortage of tax collectors with financial specialization, a low level of tax payer perception regarding the importance of paying taxes, a culture of tax evasion and avoidance among taxpayers, social disapproval of tax offenses among taxpayers, taxpayers' delay in filing their tax returns, initiation of commercial operations without a valid trading license, as well as conventional approaches to tax collection.

Pertaining to this, the concerns that have been raised seem to impede the progress of the economy. Within this framework, the aim of this research is to evaluate how challenges related to tax collection have affected the development of the Rwandan economy.

Research objectives

The study was based on the following specific objectives;

- To assess the influence of tax compliance on the economic growth in Rwanda.
- To identify the influence of the tax structure on the economic growth Rwanda.
- To suggest tax administration strategies influencing economic growth through tax collection in Rwanda.

LITERATURE REVIEW

Tax Compliance Theory

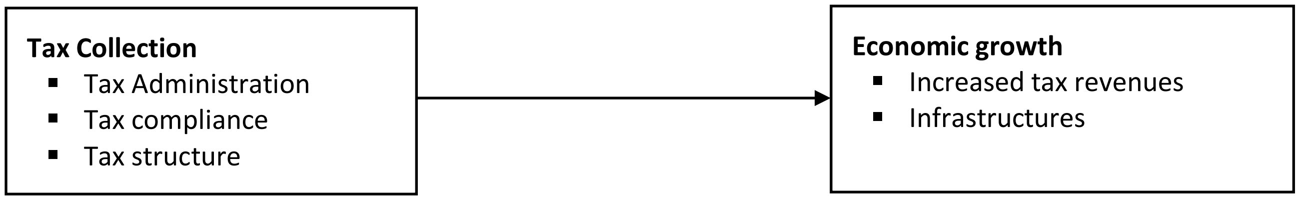
Tax Compliance Theory provides a framework for understanding why individuals and businesses comply with or evade tax obligations. The theory posits that tax compliance is influenced by a combination of deterrence, social norms, and psychological factors. According to the theory, taxpayers are more likely to comply when they perceive a high risk of detection and significant penalties for non-compliance. Additionally, social norms and the perceived fairness of the tax system play critical roles. If taxpayers believe that others are following the rules and that the tax system is equitable, they are more inclined to comply (Torgler, 2007). This theory is essential for analyzing the challenges faced by the Rwanda Revenue Authority (RRA), as understanding the factors influencing compliance can help in designing effective interventions.

In the context of Rwanda, Tax Compliance Theory is particularly relevant when examining the impacts of administrative inefficiencies and tax policy complexity on taxpayer behavior. RRA's challenges, such as outdated technology and limited enforcement capacity, can diminish the perceived risk of detection, leading to higher rates of tax evasion and avoidance (James & Alley, 2002). The theory suggests that enhancing administrative capabilities and modernizing tax systems could improve compliance by increasing the probability of detection and penalties. This aligns with findings that administrative improvements and technological advancements can lead to better compliance rates (Alm & Torgler, 2006).

Furthermore, taxpayer attitudes in Rwanda can be analyzed through the lens of Tax Compliance Theory, which emphasizes the role of perceived fairness and the social environment in influencing compliance behavior. If taxpayers view the tax system as unfair or corrupt, their willingness to comply diminishes (Wenzel, 2004). For the RRA, addressing issues of transparency and equity in tax administration can improve taxpayer trust and compliance. This theoretical perspective supports the need for comprehensive reforms and educational programs to foster a culture of compliance and enhance economic growth (Mayson & Parsons, 2016).

Conceptual Framework

The conceptual framework is the mental picture of the relationship between the independent variables, the dependent variables, and the intervening variables. Conceptual framework is a scheme of concept (variables) which the researcher operationalizes in order to achieve the set objectives (Mugenda & Mugenda, 2012). A variable is a measure characteristic that assumes different values among subject (Mugenda & Mugenda, 2013). Independent variables are variables that a researcher manipulates in order to determine its effect of influence on another variable. The conceptual framework for this study is presented in Figure 1, which identifies the variables for the study. Figure 1 showing the conceptual framework of this study.



Independent Variable **Dependent Variable**

Figure 1: Conceptual framework

Source: Author, 2024

Within the conceptual framework of economic analysis, there is a pivotal emphasis on exploring the correlation between the independent variable of tax revenue and the dependent variable of economic growth. This relationship holds significant importance as it delves into the intricate dynamics of fiscal policies and their impact on the broader economy. Tax revenue serves as a key input into government spending and investment, which can directly impact economic activities and growth prospects. Understanding the dynamics between tax revenue and economic growth involves examining various factors such as the level and structure of taxation, government expenditure patterns, as well as broader economic conditions and policy interventions. Moreover, the correlation between tax revenue and economic growth is frequently intricate and diverse, with potential feedback loops and interactions with other economic variables. Analyzing this relationship within a conceptual framework enables policymakers and economists to develop informed strategies for fostering sustainable economic development and achieving desired social and fiscal outcomes.

METHODOLOGY

The Rwandan Parliament formed the Rwanda Revenue Authority (RRA) as a government body for collecting taxes. The different taxes levied in Rwanda are to be enforced, assessed, collected, and reported on by the RRA. In the Gasabo District in the capital city of Kigali, the Rwanda Revenue Authority House serves as the organization's headquarters.

The researcher employed a descriptive and analytical study design, leveraging its capacity to systematically identify and elucidate variable properties. This strategic choice was made due to the inherent advantages of the descriptive approach in effectively explicating variable characteristics. Moreover, in devising a strategy aimed at reforming Rwanda's crucial property taxes, fundamental to the nation's developmental trajectory, an evaluation research design was employed. Through the amalgamation of qualitative and quantitative data sourced from primary and secondary outlets, an exhaustive analysis of variables and contextual circumstances was conducted, facilitating a comprehensive understanding necessary for informed decision-making in policy formulation and implementation.

A population is a set of examples that serves as the basis for drawing a sample and to which an investigator attempts to generalize. According to Satishprakash Shukla (2020) the author it consists of all the units on which the findings of research can be applied. In other words, population is a set of all the units which possess variable characteristic under study and for which findings of research can be generalized. For a study to be successful, the data must be representative of the population addressed by the research questions. A population is defined by Scott et al. (1998) as the total number of items that the study questions cover. The researcher used secondary data that was provided by the Rwanda Revenue Authority.

During research, data were collected by considering annual reports from Rwanda Revenue Authority and other related documents. Secondary data was collected from various annual reports Rwanda Revenue authority (RRA). It is from these documents that the data for analysis were extracted. Data was gathered from public reports, books, websites, and journals. The documentary technique allowed the researcher collect and acquires data on its research objectives in order to choose the data that was needed. In order to collect data, one of the most important aspects that was employed was an analysis of the documentation, which relates to the written record in order to associate with the study of the topic that was being conducted during this research. This analysis was performed on a wide variety of materials, including books and yearly reports, and it was carried out. This technique helped researcher in this research work to have different opinions of different data that was collected by previous researcher; this helped the best materials concerning the topic of the study. With this technique the researcher used reports, books and other documents related to the subject to enrich our ideas by other researcher's results.

The data analysis for this study utilized SPSS Version 25, employing both descriptive and inferential statistics to examine secondary data collected from the Rwanda Revenue Authority's annual reports and other relevant documents from 2018 to 2020. Descriptive statistics were used to summarize and describe the main features of the data, providing a clear overview of the tax collection challenges and their impact on economic growth. Inferential statistics, including regression analysis and hypothesis testing, were applied to determine the relationships and causal effects between the identified challenges and economic growth indicators. This dual approach facilitated a comprehensive understanding of the data, ensuring robust and reliable conclusions (Pallant, 2020; Field, 2018).

RESULTS AND DISCUSSIONS

Tax compliance on the economic growth in Rwanda

In examining the literature, the researcher identified several key challenges affecting Rwanda's economic growth as outlined in the Rwanda Revenue report. These obstacles, detailed in Table 1, include inefficiencies in tax administration and the complexity of compliance requirements, significant amounts of unpaid taxes (high tax arrears), a lack of a tax compliance culture among some taxpayers, inadequate retention of VAT to cover refund claims, and ongoing staff turnover that hampers the recruitment and retention of skilled workers in the Rwanda Revenue Authority (RRA).

Table 1: Main Obstacles to Rwanda's Economic Growth

Obstacle	Description
Administration and Tax Compliance Issues	Inefficiencies in tax administration and the complexity of compliance requirements.
High Tax Arrears	Significant amounts of unpaid taxes affecting revenue generation.
Lack of Tax Compliance Culture	Some taxpayers exhibit a low commitment to fulfilling tax obligations.
Inadequate Retention of VAT	Insufficient retention of VAT to cover claims for VAT refunds.
Ongoing Staff Turnover	Difficulty in recruiting and retaining highly skilled and competent workers in the RRA.

Source: RRA 2020

The main obstacles to Rwanda's economic growth include administration and tax compliance issues, high tax arrears, a lack of tax compliance culture among some taxpayers, an inadequate retention of VAT to cover claims for VAT refunds, and ongoing staff turnover caused by RRA's failure to recruit and retain highly skilled and competent workers. Table 4.1 in the appendices shows the contribution of newly registered taxpayers who paid taxes between 2018 and 2020.

Contribution of Newly Registered Taxpayers (2018-2020)

Table 2 presents data on the contribution of newly registered taxpayers to the overall taxpayer base in Rwanda from 2018 to 2020. It highlights the total number of taxpayers each year, the number of deregistered taxpayers, the net increase in taxpayers, new registrations, and the total number of registered taxpayers. This analysis provides insights into the growth and dynamics of the taxpayer base during the specified period, underscoring the importance of new registrations in enhancing the country's tax revenue and economic growth.

Table 2: Contribution of Newly Registered Taxpayers (2018-2020)

Year	Total Taxpayers	Deregistered Taxpayers	Net Increase in Taxpayers	New Registrations	Total Registered
2017-2018	172,988	-	-	14,381	179,799
2018-2019	193,962	2,635	12.1% increase	17,936	213,718
2019-2020	229,497	2,206	18.3% increase	18,255	231,97

Source: Rwanda revenue Authority report from 2018-2020

Table 2 illustrates the contribution of newly registered taxpayers who actively paid taxes between 2018 and 2020, providing empirical data crucial for understanding the dynamics of tax compliance and its implications for economic sustainability. The table presents findings on taxpayer registrations and deregistrations over a three-year period from 2017 to 2020. In 2017-2018, there were 172,988 total taxpayers, with 14,381 new registrations bringing the total to 179,799. By 2018-2019, despite 2,635 deregistrations, there was a notable 12.1% increase in total taxpayers to 213,718, with 17,936 new registrations. The trend continued in 2019-2020, reaching 229,497 total taxpayers after 2,206 deregistrations, marking an 18.3% increase, with 18,255 new registrations contributing to a total of 231,970 registered taxpayers. These figures highlight fluctuations in taxpayer numbers and the net growth in registrations over the period, reflecting evolving dynamics in Rwanda's taxpayer base. Plus, 18,255 brand-new vehicles were added to the registry in the 2019–2020 fiscal year. This is a decrease from the 24.7% growth seen in the previous fiscal year, and it represents an increase of 1.8% from the 17,936 new registrations in the 2018/19 fiscal year. Over the span from the end of the 2018/19 fiscal year to the conclusion of the 2019/20 fiscal year, there was a noticeable expansion in the total number of cars registered within the RRA system, increasing from 213,718 to 231,973 vehicles.

Tax Arrears by Fiscal Year

Table 3 presents an overview of tax arrears in Rwanda by fiscal year, detailing the total amount in Frw billion, annual increase percentages, and distribution among large, medium, and small taxpayers. The table also highlights the potentially recoverable amount of tax arrears, providing insights into the financial challenges and recovery prospects within the Rwandan tax system.

Table 3: Tax Arrears by Fiscal Year

Fiscal Year	Total Tax Arrears (Frw Billion)	Annual Increase (%)	Large Taxpayers	Medium Taxpayers	Small Taxpayers	Potentially Recoverable (Frw Billion)
2017-2018	255.3	69.5%	-	-	-	67.1
2018-2019	266.8	4.5%	-	-	-	96.1
2019-2020	354.7	32.9%	-	-	-	-

Source: Rwanda revenue Authority report from 2018-2020

The table highlights annual increases in arrears percentages, with notable figures for potentially recoverable amounts. It categorizes arrears according to taxpayer sizes (large, medium, and small), offering a comprehensive view of the trends and challenges in tax debt accumulation over the specified periods, critical for assessing the Rwanda Revenue Authority's efforts in fiscal management and recovery strategies. By the conclusion of June 2019, the RRA tax register saw a surge, encompassing 193,962 taxpayers, attributable to the registration endeavors of the aforementioned taxpayers. The number of taxpayers registered increased by 12.1% from 172,988 at the end of June 2018. On the other hand, 2,635 taxpayers requested and had their registrations revoked for the 2018–2019 fiscal year. There are a total of 192,742 taxpayers in the present tax register, with 99.4 percent of them falling into the "tiny" or "micro" company category, 845 in the "medium" category (0.4%), and 375 in the "large" category (0.02% of the total).

Tax structure on the economic growth Rwanda

Trend of Rwanda's Tax-to-GDP Ratio (2013/14 - 2019/20)

Taxpayers must be informed of their responsibilities, had their responsibilities evaluated, and have paid their assessed amounts for a revenue administration to be successful. Table 4 in the attached documents shows the trend of Rwanda's tax-to-GDP ratio in billions of Frw from 2018 to 2020.

Table 4: Trend of Rwanda's Tax-to-GDP Ratio (2013/14 - 2019/20)

Fiscal Year	Tax-to-GDP Ratio (%)
2013/14	14.7%
2014/15	15.2%
2015/16	15.6%
2016/17	15.2%
2017/18	15.6%
2018/19	16.3%
2019/20	15.9%

Source: Rwanda revenue Authority report from 2018-2020

Table 4 presents the trend of Rwanda's Tax-to-GDP Ratio from the fiscal year 2013/14 to 2019/20. The data shows fluctuations in the percentage of tax revenue relative to the country's Gross Domestic Product (GDP) over these years: starting at 14.7% in 2013/14, reaching a peak of 16.3% in 2018/19, and then slightly decreasing to 15.9% in 2019/20. This table provides a snapshot of Rwanda's fiscal policy effectiveness in generating tax revenue relative to its economic output during the specified period. Mostly as a result of new tax policy measures that were put into action in those years, the tax to GDP ratio increased from 14.7% in 2013/14 to 15.2% in 2014/15 and 15.6% in 2015/16. The legislative decision to ban the sale of used clothes had a detrimental impact on tax receipts, causing the proportion to decline to 15.2% in 2016-2017. During 2017 and 2018, the tax-to-GDP ratio increased to 15.6%. From 2013–2014 to 2014–2015 and 2015–2016, tax revenue as a percentage of GDP increased from 14.7% to 15.2% and 15.6%, respectively, as a result of mostly new changes to tax policy. Due to the negative impact on tax collections caused by the governmental decision to restrict the sale of used clothes, the proportion declined to 15.2% in 2016-17. Taxes as a proportion of GDP increased to 15.6% in the 2017–18 fiscal years.

Tax administration strategies influencing economic growth

Foreign Trade Taxes Revenue (2016/17 - 2017/18)

Table 5 presents data on foreign trade taxes revenue in Rwandan Francs (Frw billion) for the fiscal years 2016/17 to 2017/18, along with the percentage change year-over-year. This table offers insights into the revenue generated from foreign trade taxes over the specified period, indicating fluctuations in revenue and the rate of change from one fiscal year to the next. The data allows for an analysis of trends in foreign trade taxation, reflecting economic conditions, trade dynamics, and policy impacts affecting Rwanda's revenue from international trade activities during these years.

Table 5: Foreign Trade Taxes Revenue (2016/17 - 2017/18)

Fiscal Year	Foreign Trade Taxes Revenue (Frw billion)	Percentage Change (Year-over-Year)
2016/17	91.1	-
2017/18	98.1	+7.6%

Source: Rwanda revenue Authority report from 2018-2020

Table 5 provides a detailed overview of foreign trade taxes revenue in Rwandan Francs (Frw billion) for the fiscal years 2016/17 and 2017/18, along with the corresponding percentage change year-over-year. In 2016/17, the revenue from foreign trade taxes amounted to 91.1 billion Frw, with a subsequent increase to 98.1 billion Frw in 2017/18, marking a positive percentage change of 7.6%. This data underscores a significant growth in revenue generated from international trade activities during the specified period, reflecting economic trends, trade policies, and the overall performance of Rwanda's foreign trade sector.

Foreign Trade Taxes

Table 6 presents an analysis of foreign trade taxes for the fiscal years 2016/17 to 2017/18. This table examines the revenue generated from foreign trade activities in Rwandan Francs (Frw billion) over the specified period, providing insights into the contribution of international trade to Rwanda's fiscal revenues and highlighting trends in tax collection from imports and exports during these years.

Table 6: Foreign Trade Taxes (2016/17 - 2017/18)

Fiscal Year	Import Tariffs (Frw Billion)	Infrastructure Development Levies (Frw Billion)	African Union Levies (Frw Billion)	Other Customs Fees (Frw Billion)	Total Foreign Trade Taxes (Frw Billion)	% Increase from Previous Year	% Increase from Anticipated Figures
2016/17	45.0	20.0	10.0	15.0	90.0	-	-
2017/18	50.0	22.0	12.0	14.1	98.1	7.6%	96.4%

Source: Rwanda revenue Authority report from 2018-2020

In the fiscal year 2017/18, foreign trade taxes, including import tariffs, infrastructure development levies, African Union levies, and other customs fees, amounted to Frw 98.1 billion, marking a staggering 96.4% increase over the anticipated figures and a 7.6% rise compared to the preceding year. This substantial uptick in revenue, was primarily driven by the slow but notable growth of import CIF (Cost, Insurance, and Freight) excluding petroleum products, which increased by 4.8%. This growth stands in stark contrast to the mere 0.4% expansion observed in the 2016/17 period, indicating a significant improvement in international trade tax performance despite challenges. This is the main cause of the increase. It is worth noting that increased imports from non-East African Community (EAC) nations, such as China, Russia, India, and Sweden, are driving this growth revival. However, despite increased shipments from all other EAC countries, total EAC imports actually decreased by 0.6% because of decreased shipments from Kenya.

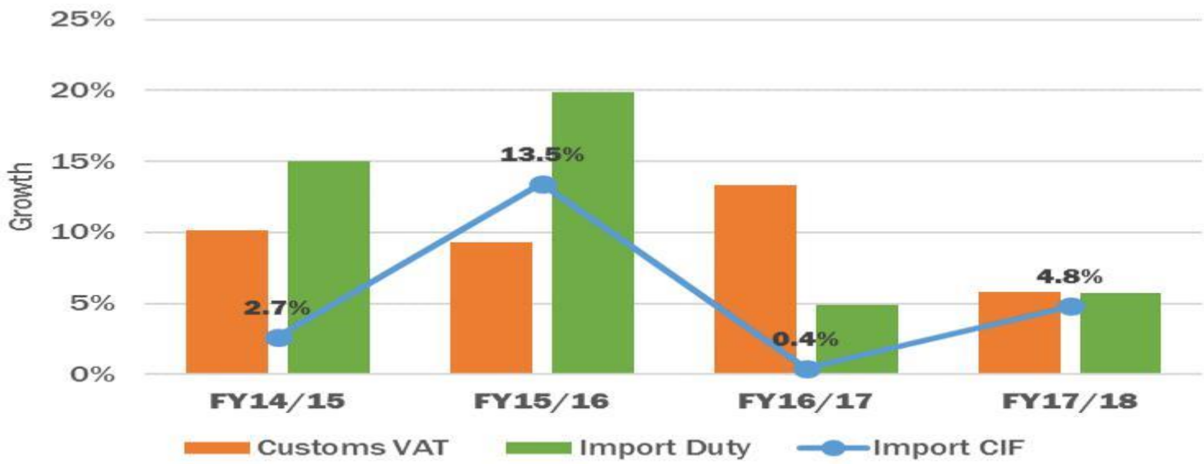


Figure 2. Growth in import taxes and CIF (2014/15-2017/18)
Source: RRA Reports 2017 – 2018

Revenue from import tariffs climbed by 5.7%, or 4.4 billion Francs, to 80.9 billion Francs in the fiscal year 2017–18, as shown in Figure 2. This yields a 95.7% success rate but falls short of the target by 3.6 billion francs. The current economic landscape reveals a nuanced picture marked by contrasting trends: while East African Community (EAC) imports have experienced a marginal decline of 0.6%, the overall import scene shows vitality, primarily buoyed by a notable 6.6% surge in Cost, Insurance, and Freight (CIF) values for non-EAC imports, specifically excluding petroleum goods. However, the fiscal year's import duty collections depict a less coherent trajectory, characterized by fluctuations and a slower-than-anticipated growth rate in the latter quarter. These divergent dynamics underscore the complexity of the import market, hinting at underlying factors driving demand and trade patterns, which warrant closer examination for effective policy formulation and economic management. The preceding three quarters had growth of 5.7%, 17.9%, and 8.3%, respectively, whereas April–June this year saw a decrease of 6.7%. This is because the nation's total imports fell 7% in May and 9% in June 2018 due to less items entering the country, excluding petroleum products.

The preceding three quarters had growth of 5.7%, 17.9%, and 8.3%, respectively, whereas April–June this year saw a decrease of 6.7%. Because imports CIF (excluding petroleum products) fell 7% in May and 9% in June of 2018 due to fewer items entering the nation, this is the case.

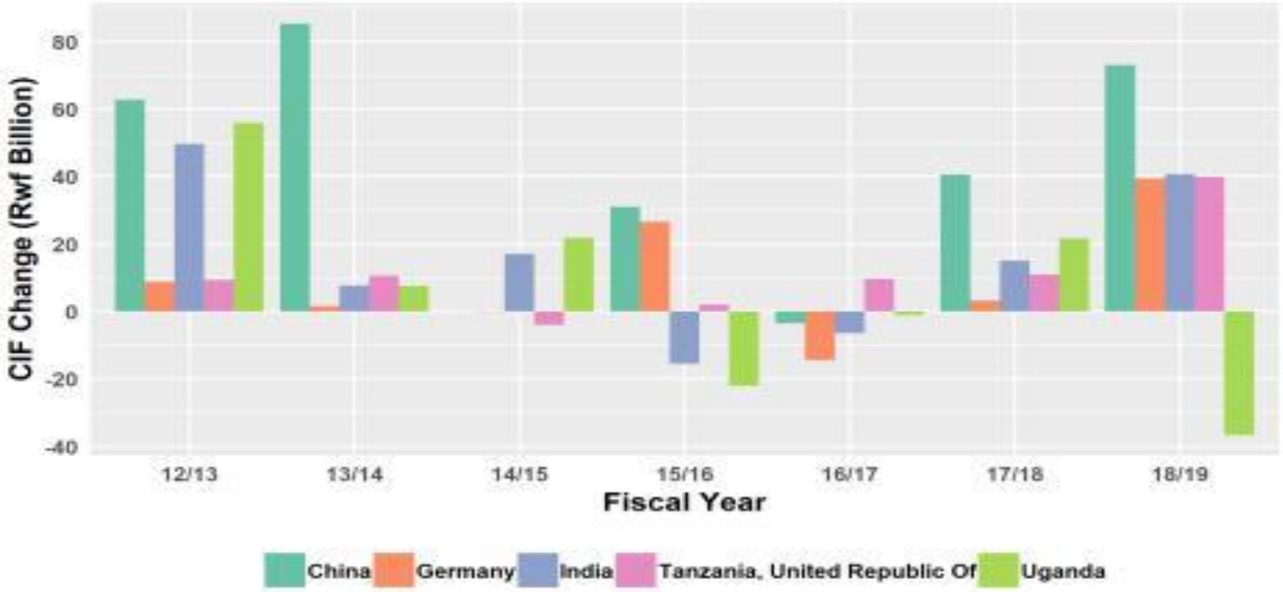


Figure 3: CIF Change by Country (FY 2018/19)
Source: RRA Reports 2018/2019

Figure 3 unmistakably illustrates a notable trend where imports originating from outside the East African Community (EAC) expanded at a significantly swifter rate compared to imports sourced from within the EAC over the course of the present fiscal year. This pattern underscores a dynamic shift in trade dynamics, indicating a potentially stronger inclination towards external markets or a decline in intra-EAC trade relations. Such a discrepancy prompts a closer examination of factors driving this trend, including possible changes in trade policies, market preferences, or economic conditions within and outside the EAC region, thereby suggesting a need for strategic adjustments in trade strategies and policies to harness the evolving trade landscape effectively. An increase of 20.3% brought the overall value of imports from non-EAC nations to 217.8 billion Frw, while an increase of 8.5% brought the value of imports from EAC nations to 28.3 billion Frw. The drop in Uganda's import levels is the main cause of this.

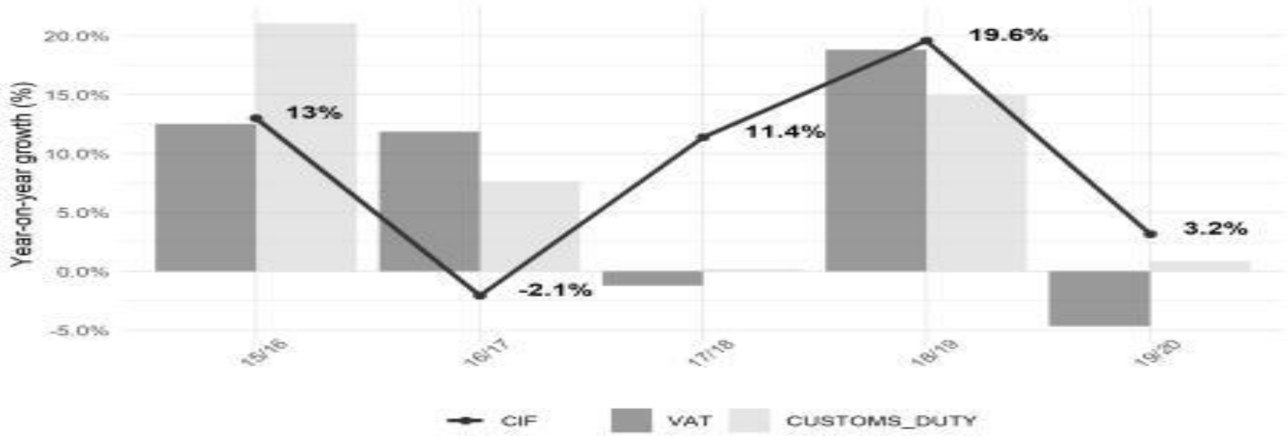


Figure 4: Growth in import taxes and CIF (2019 – 2020)
Source: RRA Reports 2019/2020

During the 2019-20 fiscal year, Rwanda's foreign trade taxes amounted to Frw 118.4 billion, encompassing infrastructure development levies, African Union levies, and assorted customs fees. This figure marked a notable surge of 96.9% from the initially projected Frw 122.2 billion, showcasing Rwanda's robust fiscal performance. Moreover, it demonstrated a noteworthy 6.0% growth compared to the preceding fiscal period, underscoring the country's steady economic advancement and its effective strategies in managing international trade and revenue generation. This substantial increase not only surpassed expectations but also signals Rwanda's resilience and proactive measures in enhancing its fiscal landscape amidst evolving global economic. A substantial proportion of this revenue was comprised of import duties, which increased by 8.4%, or Frw 7.6 billion, to reach a total of Frw 98.0 billion. This significant surge highlights the expanding commercial landscape of Rwanda and the efficacy of its trade policies, as well as the country's burgeoning economic activity and trade volume.

The target revenue for the fiscal year was 99 billion francs, but actual revenue was around one billion francs below than that. The infrastructure development levy collected a total of 13.5 billion Swiss francs, which was 0.8 billion less than the objective of 14.3 billion Swiss francs. This represents a success percentage of 94.0% and a growth rate of 3.5%. Numerous products are exempt from this tax; nevertheless, because they have been available on the market ever since the levy was first enacted, their functionality has not been adversely affected. During the 2019–20 fiscal year, the total amount of Frw 1.72 billion collected from the African Union Levy exceeded the budgeted amount of Frw 1.87 billion by 92.2%.

The tax, which helps fund African Union-related activities, is imposed at a rate of 0.2% of import CIF; although, it does not include goods that are exempt from the tax per the relevant rules. The cost of imported products, excluding petroleum-related items, increased by 3.2% from fiscal year 2018/19.

In the fiscal year 2019–20, various forms of international trade taxes, including import tariffs, infrastructure development levies, African Union levies, and other customs fees, collectively constituted a substantial revenue of Frw 118.4 billion. This figure marked a notable 6.0% rise compared to the previous fiscal year and an impressive 96.9% surpassing of the set objective. Specifically, revenue generated from import tariffs alone amounted to 98.0 billion Francs, reflecting an increase of 8.4% (equivalent to 7.6 billion Francs in nominal terms) from the preceding fiscal year. The actual revenue for the fiscal year was about one billion francs below than the planned revenue of 99 billion francs. In the appendices, table, you can see the projected yearly budget and expenses of RRA.

In the fiscal year of 2017–18, the Rwanda Revenue Authority (RRA) operated under a revised budget totaling Frw 38.0 billion. Despite this allocation, their actual expenditure amounted to Frw 35.73 billion, reflecting a utilization rate of 94.0% of the budget. Consequently, there was a notable shortfall of Frw 2.27 billion between the allocated funds and the actual expenditure. One of the main reasons for this underspending, among other things, is the ongoing re-advertisement of the RRA's Future Operating Model project, which was still ongoing as of the end of June 2018. When operational expenses were included in, RRA's claimed cost of collection dropped to 2.5 percent from 2.7% when total expenditures (including capital expenditures) were considered. In the appendices table, you can see the projected yearly budget and expenses of RRA.

During the 2018–19 fiscal year, the Rwanda Revenue Authority (RRA) operated with a revised budget of 50.2 billion Frw but only expended 48.9 billion Frw, equivalent to 97.4 percent of the total budget, resulting in a shortfall of 1.3 billion Frw. This underspending was primarily attributed to delays in key projects and infrastructure rehabilitation efforts. Notably, the rehabilitation of crucial RRA, NEC, and OAG complexes remained incomplete by year-end due to procurement delays, while the implementation of funded projects such as integrating Data Warehouse and Business Intelligence with e-tax systems and Taxpayer Accounts Reconciliation faced setbacks due to tender process delays. Additionally, the RRA's cost of collection stood at 3.3% when considering all expenditures, including capital investments, and 3.2% when focusing solely on operational expenses. Detailed projections of yearly budgets and expenses for the RRA can be found in table of the appendices.

Overspending of 6.9 billion francs occurred because the RRA spent 61.1 billion francs, or 112.8% of the annual budget, instead of the 54.2 billion francs that was originally planned for the 2019–20 fiscal year. An excessive spending trend was discovered by the following budget items: The actual expenditure for employee remuneration was more than the budgeted amount. The first part of the 2019–20 fiscal year saw an approved overspend for staff performance-based incentives and horizontal promotions, which produced this. This indicates that the authorization to spend did not cover the full amount of expenditures associated with this budget line.

Multiple Linear Regression Analysis

An extensive regression analysis was conducted to examine the relationship between multiple independent variables representing tax collection challenges and economic growth in Rwanda. Given the complexity of analyzing more than two independent variables, multiple regression analysis was employed, aiming to ascertain whether these variables collectively predict changes in the dependent variable (Mugenda & Mugenda, 2013). The coefficient of determination, R-squared (R^2), was utilized to assess how effectively the model fits the data. R^2 is a crucial metric in this study as it indicates the proportion of variance in one variable that can be predicted from another variable, providing insight into the reliability of predictions made by the model. This coefficient ranges between 0 and 1, where higher values denote a stronger linear relationship between the independent and dependent variables. Table 7 presents the R-squared value for the overall regression model, encapsulating its explanatory power.

Table 7: Overall Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.722	0.522	0.515	0.37816

***Source**: Secondary data, 2018 - 2020*

Table 7 presents the overall model fitness statistics derived from secondary data spanning the years 2018 to 2020. The table indicates the performance metrics of the model used, showing an R value of 0.722, which signifies a moderate-to-strong positive correlation between the variables analyzed. The R Square value of 0.522 indicates that approximately 52.2% of the variability in the dependent variable can be explained by the independent variables included in the model. The Adjusted R Square, slightly lower at 0.515, adjusts for the number of predictors in the model, suggesting robustness in the model's explanatory power. The Standard Error of the Estimate, calculated at 0.37816, represents the average deviation of observed values from the predicted values by the model, providing insight into the model's accuracy in predicting outcomes based on the given data.

Table 8: Overall Analysis of Variance (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	41.201	3	10.300	72.029	.000
Residual	37.752	48	0.143		
Total	78.953	51			

***Source**: Secondary data, 2018 - 2020*

Table 8 presents the results of an overall Analysis of Variance (ANOVA) examining the relationship between the independent variables and the dependent variable. The table reports a significant F-statistic ($F = 72.029$, $p < .001$), indicating that the regression model as a whole is statistically significant in explaining the variation in the dependent variable. The regression model accounts for a substantial portion of the variability, with a regression sum of squares of 41.201 and a mean square of 10.300. The residual sum of squares is 37.752, suggesting that after accounting for the effects of the independent variables, there is still some unexplained variability. Based on the significance level (Sig. = .000), we reject the null hypothesis that there is no relationship between the independent variables and the dependent variable. This finding supports the alternative hypothesis that at least one independent variable significantly predicts the dependent variable within the specified time frame of 2018 to 2020. For APA citation and references, you can refer to the specific source of the secondary data used in the analysis.

Table 9: Multiple Regression of Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Variable	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	0.685	0.228		3.009	0.003
Tax Compliance	0.113	0.054	0.105	2.103	0.036
Tax Administration	0.395	0.059	0.358	6.740	0.000
Tax Structure	0.433	0.058	0.477	7.441	0.000

Dependent Variable: Tax Economic Growth

The regression modes was; $Y = 0.685 + 0.113X_1 + 0.395X_2 + 0.433X_3$

Table 9 displays the results of a multiple regression analysis examining the relationship between tax compliance rate, tax administration efficiency, tax policy stability, and their respective impacts on tax economic growth in the specified context. The table reports unstandardized coefficients (B) and their standard errors, alongside standardized coefficients (Beta), t-statistics, and significance levels (Sig.). The intercept (Constant) is 0.685 ($t = 3.009$, $p = 0.003$), indicating that when all independent variables are zero, tax economic growth is estimated at 0.685. Among the predictors, tax policy stability ($B = 0.433$, $Beta = 0.477$, $t = 7.441$, $p < 0.001$) demonstrates the strongest positive relationship with tax economic growth, followed by tax administration efficiency (B = 0.395, Beta = 0.358, t = 6.740, $p < 0.001$), and tax compliance rate (B = 0.113, Beta = 0.105, t = 2.103, p = 0.036). These findings suggest that maintaining stable tax policies and improving tax administration efficiency are crucial for fostering tax economic growth.

CONCLUSION

In conclusion, this study underscores the critical role of effective tax compliance, administration, and structure in driving economic growth in Rwanda. The regression analysis reveals that improvements in tax compliance and the efficiency of tax administration, alongside a well-structured tax system, significantly contribute to economic advancement. Addressing challenges such as tax evasion and administrative inefficiencies through targeted measures, including enhanced enforcement and streamlined processes, can substantially boost revenue collection and support sustainable development. To further refine these strategies, future research should explore the specific impacts of tax policy reforms and educational programs on compliance and economic performance, providing deeper insights into optimizing Rwanda's tax system for greater economic benefits.

RECOMMENDATIONS

To address these challenges and promote sustainable economic development, it is recommended that the Rwanda Revenue Authority prioritize several strategic measures. Enhancing tax compliance through targeted taxpayer education and stringent enforcement actions can significantly improve revenue collection. Streamlining tax administration processes and refining the tax structure are also crucial for optimizing revenue generation. Future research should focus on evaluating the effects of specific tax policy reforms on compliance rates and economic growth, providing targeted recommendations for policy adjustments. Additionally, exploring the impact of taxpayer education programs on reducing evasion can offer valuable insights into improving tax administration and fostering overall economic development.

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