

# Effect of Value Added Tax Collection on Gross Domestic Product in Rwanda (2012-2022)

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## ABSTRACT

This study investigated the impact of VAT collection, encompassing VAT collected on goods, services, and imports, on the GDP of Rwanda 2012-2022 using a multiple regression model. VAT plays a pivotal role in the fiscal policies of countries worldwide, and its efficient collection can significantly influence a nation's economic performance. In the Rwandan context, where VAT is applied comprehensively, understanding how these diverse components of VAT affect GDP growth is essential for evidence-based policymaking and economic planning. Employing a multiple regression model, this research examines the relationship between VAT collection and GDP while controlling for other relevant factors that might influence economic growth. The study utilizes both time-series and cross-sectional data to capture the intricate dynamics at play. By analyzing the impact of VAT collected on goods, services, and imports separately and collectively, this study provides a nuanced perspective on the contribution of VAT to Rwanda's economic development. The results of this research have significant implications for Rwanda's policymakers, offering insights into the effectiveness of VAT as a revenue-generation tool and its role in fostering economic growth. This result indicate : Tax on Importation has a positive and statistically significant effect on GDP (Beta = 0.475, p = 0.010), suggesting that an increase in importation taxes is associated with an increase in GDP. Similarly, Tax on Goods shows a positive and statistically significant relationship with GDP (Beta = 0.309, p = 0.033), implying that higher taxes on goods are linked to higher GDP. This study suggests that taxation policies, particularly taxes on importation and goods, may have a significant influence on a region or country's Gross Domestic Product. However, further research and consideration of other economic factors are necessary to fully understand the complex dynamics.

## INTRODUCTION

### Background of the study

A key economic indicator, the gross domestic product (GDP) shows the total value of all products and services generated inside a nation's boundaries over a certain period of time. It functions as a thorough scorecard of a nation's economic well-being, providing information on growth patterns and performance. GDP is a tool used by economists and policymakers to guide monetary and fiscal policies that are intended to control inflation, unemployment, and the distribution of resources. There are three primary approaches for calculating GDP: the production (or output) approach, the income approach, and the spending approach. Each method offers a unique viewpoint on the state of the economy (Akhor and Ekundayo, 2016).

In the context of Rwanda, GDP plays a vital role in assessing the nation's development and guiding its economic strategy. As a developing country, Rwanda's economic activities encompass agriculture, manufacturing, services, and tourism, contributing variably to its GDP. Over the years, the country has demonstrated remarkable economic resilience and growth, attributed to government policies focused on economic transformation and poverty reduction. Understanding Rwanda's GDP composition and growth trends is essential for evaluating the impact of policy measures, such as the Value Added Tax (VAT) collection, on its economic dynamics. By analyzing GDP, researchers and policymakers can identify areas of strength and potential vulnerabilities within the economy, thus devising strategies that promote sustainable growth and development (Njogu, 2015).

Globally, Value Added Tax (VAT) is prevalent consumption tax, with diverse implementations and impacts across countries. For instance, in European countries like France, Germany, and the United Kingdom, VAT rates range from 19% to 25%, with reduced rates for certain essential items. India has adopted a dual GST system with varying rates for goods and services. Meanwhile, Canada has a nationwide Goods and Services Tax (GST) combined with provincial sales taxes, creating a complex multi-level tax system. In contrast, some Gulf Cooperation Council (GCC) countries, such as the United Arab Emirates and Saudi Arabia, introduced VAT more recently as part of economic diversification efforts, setting a standard rate of 5%. Despite variations, VAT serves as a crucial revenue source and tax policy tool for governments globally, influencing consumption patterns and impacting both businesses and consumers alike (Njogu, 2015).

In Africa, Value Added Tax (VAT) exhibits diversity in terms of implementation and rates. Many African countries have adopted VAT as a source of revenue, with rates typically ranging between 15% and 18%. For instance, South Africa has a standard VAT rate of 15% and includes exemptions for certain essential goods and services. In Nigeria, VAT is also set at 7.5%, with exemptions for basic necessities. Kenya has a VAT rate of 16%, while Ghana recently increased its standard VAT rate to 18%. However, VAT compliance can be challenging in some African countries due to informal economies and limited infrastructure, leading to issues with revenue collection. Despite these challenges, VAT plays a crucial role in the fiscal policies of many African nations, contributing to government revenue and economic development efforts (Mgammal, 2021). In EAC, with different rates and rules, VAT is a prevalent characteristic in the majority of EAC nations. Tanzania has a VAT rate of 18% with comparable exemptions, while Kenya has a regular VAT rate of 16% with exemptions for necessities. Although Rwanda's VAT is fixed at 18%, it also provides discounted rates for some goods and services. The usual VAT rate in Uganda is 18%, and the same VAT rate is used in Burundi. The EAC's member nations rely heavily on VAT as a source of income, which supports regional economic development programmes and government budgets. To encourage international commerce and investment, the EAC is aiming to harmonise VAT legislation and processes (El-Zimaity *et al.*, 2018).

### Statement of Problem

In Rwanda, the relationship between Value-Added Tax (VAT) collection and its impact on Gross Domestic Product (GDP) remains a subject of critical importance, especially in the context of fostering sustainable economic growth. While VAT is a significant contributor to government revenue, there exists a notable gap in understanding how the collection of VAT on taxable goods, taxation services, and importation of taxable items distinctly influences the overall GDP. This study aims to address this gap by investigating the intricate connections between VAT and GDP, seeking to unravel the specific dynamics that characterize these relationships. The nuanced effects of VAT on individual components of GDP, such as taxable goods, taxation services, and importation of taxable items, have not been thoroughly explored, hindering the development of targeted fiscal strategies that could optimize the impact of VAT on economic growth in Rwanda.

Value Added Tax (VAT) collection's impact on Rwanda's GDP is a complicated subject with a complex relationship. On the one hand, the amount of VAT collected may significantly affect a nation's GDP, while on the other, GDP also affects the amount of VAT collected. GDP and VAT collection are linked in a number of ways. First off, VAT directly boosts government revenue, a crucial source of money for public spending on things like building infrastructure, educating children, and providing healthcare. Effective and efficient VAT collection can result in larger government income, which in turn can enable higher public spending, eventually supporting economic development. VAT may also have an impact on consumer spending and company investment. Changes in VAT rates may have an impact on consumer behaviour and, consequently, on the demand for products and services. Investment choices and business income may be impacted as a result. According to Mahoro (2018), a reduction in VAT rates, for instance, can boost consumer expenditure and economic expansion, whilst an increase would have the reverse effect.

On the flip side, the GDP level also has a significant influence on VAT collection. An expanding economy often results in greater economic activity and more VAT receipts. Businesses often grow as the GDP rises, which results in more transactions that are subject to VAT. Additionally, a greater tax base may be a sign of stronger GDP, which might lead to higher VAT collection. However, there may also be a negative effect. GDP may decrease during times of economic depression or recession, which might result in less economic activity and

therefore fewer VAT receipts. For instance, the COVID-19 epidemic caused a drop in economic activity in numerous nations, which had an immediate effect on VAT collection.

## Objectives of the Study

### General Objective

The goal of the research was to assess the effect of vat collection on gdp in Rwanda

### Specific Objectives

The following specific goals were intended to be accomplished by this study in an effort to reach the major goal indicated above in order to alleviate the aforementioned issues:

1. To assess the relationship between VAT collected in taxable goods and Investment on GDP in Rwanda.
2. To assess the effect of VAT collected on taxation services in imports on GDP in Rwanda.
3. To assess the effect of VAT collected in importation of Taxable on GDP in Rwanda
4. To find out Moderating effect of consumer protection law has influence on GDP

### Research Hypotheses

1. The GDP of Rwanda and VAT on investments are positively correlated.
2. The GDP of Rwanda and the VAT collected upon the importation of Taxable Goods are positively correlated.
3. The VAT that is collected from taxing services and Rwanda's GDP are positively correlated.
4. Moderating effect of consumer protection law has influence on GDP

## LITERATURE REVIEW

James Alm is a prominent researcher in the field of taxation, and his work often delves into the impact of VAT on goods and services. One of his significant findings is that the taxation of services can be a challenging endeavor due to the intangible nature of many services and the difficulty in monitoring and enforcing compliance. His research underscores the importance of designing VAT systems that are tailored to the specific characteristics of services to ensure effective collection and minimize tax evasion.

Bird (2010)'s research on VAT and goods and services exported emphasizes the potential benefits of a well-designed VAT system. He has found that VAT can be a reliable source of revenue for governments when applied to services, especially in the context of the growing service sector in many economies. Bird's work highlights the need for policymakers to carefully consider the tax base, rate structure, and administrative mechanisms when implementing VAT on services to optimize revenue collection.

Oraka *et al.*, (2017)'s research has explored the implications of VAT on the service sector and its effects on economic behavior. One of his key findings is that VAT on services can influence consumer choices and investment decisions. Due's work suggests that the design of VAT on services can have both short-term and long-term consequences for a country's economic performance, making it crucial for policymakers to consider the broader economic effects when implementing or reforming VAT systems.

Therefore, these three authors have made significant contributions to the literature on VAT collection on services. Their findings highlight the complexities of taxing services, the potential benefits of a well-designed VAT system, and the broader economic implications of VAT on the service sector. Policymakers and researchers can draw valuable insights from their work when considering the taxation of services in different economic contexts.

Tait (1988)'s research has focused on the implications of VAT on importation and international trade. He has found that VAT systems can be complex, especially in the context of cross-border transactions. One of his notable findings is that VAT on imports can have a significant impact on trade flows, affecting the competitiveness of domestic industries and influencing consumer choices. Tait's work emphasizes the need for clear and transparent rules regarding VAT on importation to facilitate international trade and minimize trade distortions.

Auerbach *et al.* (2017)'s research on VAT and importation has explored the relationship between VAT rates and international trade. His findings suggest that variations in VAT rates across countries can create opportunities for tax avoidance and influence the location of economic activities. Devereux's work underscores the importance of harmonizing VAT rates on imports and addressing tax competition among countries to promote fair and efficient international trade.

Borselli (2011)'s research has focused on the impact of VAT on importation in the European context. He has found that VAT systems within the European Union (EU) have evolved to facilitate trade among member states while ensuring the collection of VAT on imports. Barre's work highlights the complexities of VAT harmonization in a regional economic bloc and the importance of cooperation among member states to ensure the effective collection of VAT on imported goods within the EU.

## RESEARCH METHODOLOGY

The research methodology used in this study was outlined as follows: the study population, sampling strategy, sample size, research design, data collecting sources, data collection methodologies, data collection, and lastly data processing and analysis.

The methodology employed to investigate the effect of VAT collection on GDP in Rwanda comprises the collection of relevant historical data on VAT revenue and GDP, followed by a time series analysis to discern trends and patterns. Econometric models, particularly regression analysis, are applied to quantify the relationship between VAT collection and GDP, controlling for potential confounding variables.

### Source of data

To study the effect of VAT collection on GDP in Rwanda, the research was primarily rely on secondary data obtained from official sources. The key sources of data collection include: RRA: VAT Collection Data: The RRA provided data on VAT revenue collection over a specific period, including details of VAT receipts, tax compliance, and trends in VAT collection. Taxpayer Data: Information on the number of registered taxpayers, VAT-registered businesses, and their contributions to VAT collection will be sourced from the RRA.

NISR:GDP Data: The NISR provided data on Rwanda's GDP over the study period, reflecting the country's overall economic performance. Macroeconomic Indicators: Other relevant macroeconomic data, such as inflation rates, investment rates, and trade balances, may be obtained from the NISR to provide a broader context for the analysis. Government Reports and Publications: Government reports and publications related to fiscal policies, tax reforms, and economic development in Rwanda may be used to gain insights into the government's approach to VAT collection and its impact on the economy.

### Study population

The "study population" was the entire set of available data related to VAT collection and GDP in Rwanda during the relevant time period (2012-2022). This included datasets, reports, economic indicators, and any other relevant information collected and published by RRA and NISR, international organizations, research institutions, and other reliable sources.

The study population mainly involved existing data and statistics of report of 10 years collected by the Rwanda Revenue Authority, the National Institute of Statistics of Rwanda, and other official sources. As such, the research did not involve direct interactions with human participants. Instead, the study focused on analyzing and interpreting the secondary data to understand the effect of VAT collection on GDP in Rwanda. This approach

allowed for a comprehensive examination of the relationship between VAT revenue and economic performance without the need for human subjects.

### Sampling techniques

Purposive sampling (Non probability sampling) was used by selecting a dataset of 2012-2022 since the research on the effect of VAT collection on GDP in Rwanda primarily relies

on secondary data obtained from official sources, there is no need for a probability sampling technique or sample size determination involving human subjects. Instead, the study involved the retrieval and analysis of complete datasets on VAT collection and GDP, provided by the RRA and the NISR, respectively.

The study population consists of historical data on VAT collection and GDP, and the complete dataset for the specified time period was used for analysis. As such, the entire population of VAT collection data and GDP data available within the chosen study period included in the research. Using the complete dataset eliminates the need for sampling and ensures that the analysis covers the entirety of VAT collection and GDP data relevant to the research question. This approach allows for a comprehensive examination of the relationship between VAT collection and GDP in Rwanda without the need to sample from a larger population in reports from 2018-2022.

### Data Analysis

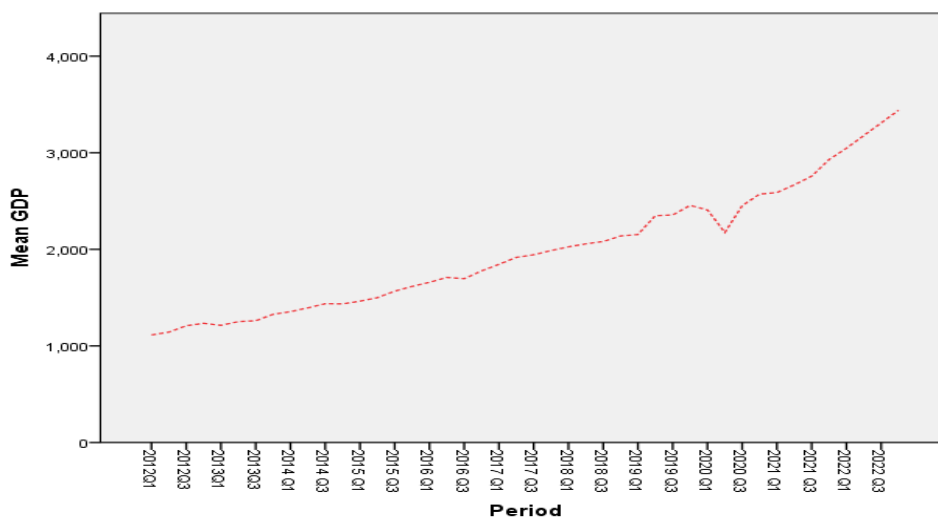
Several statistical approaches were used in the data analysis for the study on the impact of VAT collection on GDP in Rwanda. SPSS Version 24 statistical software was used to evaluate the link between VAT income and economic performance. The analysis can be summarized as follows: Descriptive statistics was used to summarize and describe the data related to VAT collection and GDP. Measures such as mean, median, standard deviation, and range provided an overview of the central tendency and variability of the variables. A correlation analysis was conducted to assess the relationship between VAT collection and GDP. The correlation coefficient indicated the strength and direction of the association between these two variables.

## RESULTS AND DISCUSSIONS

the findings of a researcher's data collected from the field are discussed. In order to examine the data, the researcher employed a number of methods, software packages, and models, including inferential and descriptive methods, SPSS, and a multiple regression model. The results, which are also included in this chapter, were described using several tables and graphs.

### Results

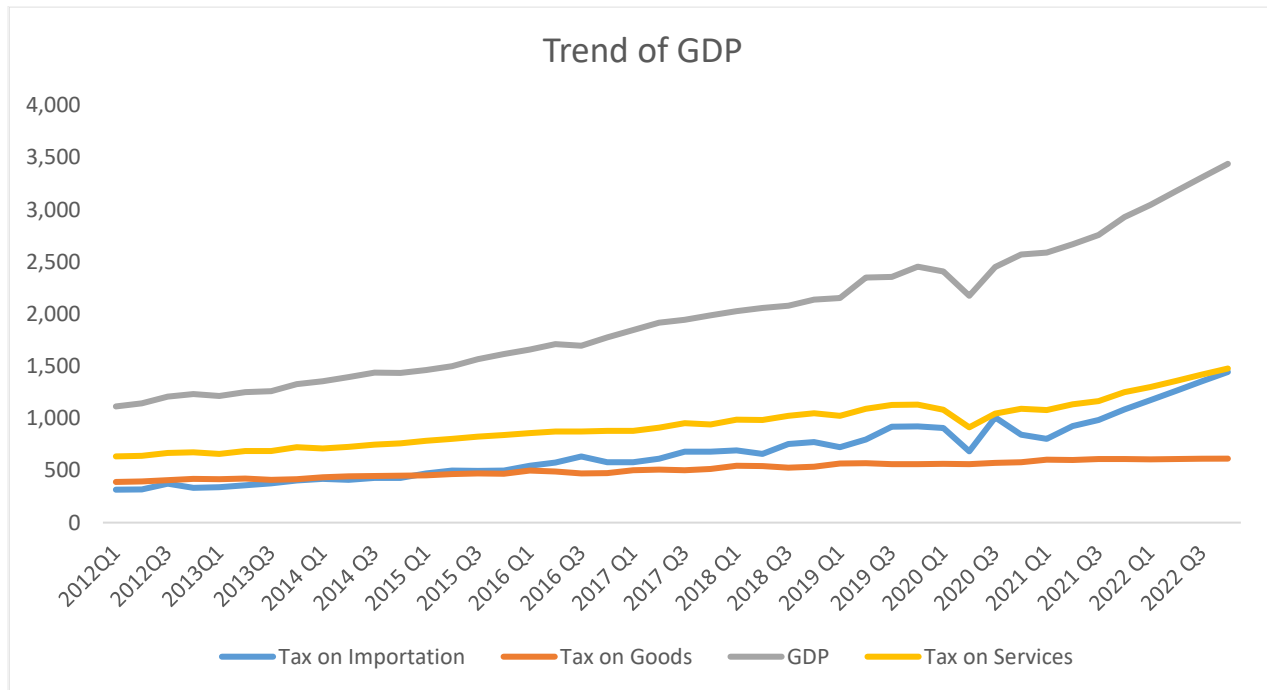
Figure 1 : Trend of GDP 2012-2022



Source: NISR, 2022

The provided data represents the Gross Domestic Product (GDP) of a particular period, spanning from the first quarter of 2012 to the fourth quarter of 2022. The GDP values show the economic output in each respective quarter. Over this period, the GDP generally exhibits an increasing trend, with occasional fluctuations. The economy experienced growth in GDP over the years, reaching its highest point in the fourth quarter of 2021 and continuing to rise in the subsequent quarters of 2022. This trend suggests a positive overall economic performance with variations likely influenced by factors such as economic cycles, policy changes, and external events.

Figure 2 : Trend of GDP, TI, TG and TS



Source: NISR, 2022

The figure presents quarterly data from 2012 to 2022, including values for "Tax (VAT) on Importation," "Tax (VAT) on Goods," "Gross Domestic Product (GDP)," and "Tax (VAT) on Services." These figures reflect the fluctuations and trends in these variables over time, offering insights into their interplay and potential impact on the overall economic landscape during the specified period.

Table 1 : Normality test Results

Tests of Normality							
	Tax on Goods	Kolmogorov-Smirnov <sup>e</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GDP	415	.260	2	.			
	472	.260	2	.			
	561	.243	3	.	.972	3	.680
	609	.260	2	.			

For the Shapiro-Wilk test, the p-value for the fourth row is 0.680. Generally, if the p-value is greater than the chosen significance level (commonly 0.05), you would fail to reject the null hypothesis that the data is normally

distributed. In this case, the p-value is greater than 0.05 (it's 0.680), which suggests that there is no strong evidence to conclude that the "GDP" data significantly deviates from a normal distribution.

Table 2 : Correlation Matrix

Correlations					
		Tax on Importation	Tax on Goods	Tax on Services	GDP
Tax (VAT) on Importation	Pearson Correlation	1	.920**	.987**	.984**
	Sig. (2-tailed)		.000	.000	.000
	N	44	44	44	44
Tax (VAT) on Goods	Pearson Correlation	.920**	1	.946**	.962**
	Sig. (2-tailed)	.000		.000	.000
	N	44	44	44	44
Tax (VAT) on Services	Pearson Correlation	.987**	.946**	1	.989**
	Sig. (2-tailed)	.000	.000		.000
	N	44	44	44	44
GDP	Pearson Correlation	.984**	.962**	.989**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	44	44	44	44
**. Correlation is significant at the 0.01 level (2-tailed).					

The correlation matrix illustrates highly significant and robust positive relationships among the variables examined, including taxes on importation, taxes on goods, taxes on services, and Gross Domestic Product (GDP). All correlations are statistically significant at the 0.01 level (2-tailed), denoting that these associations are not likely due to random chance. Specifically, taxes on importation exhibit a strong positive correlation with both taxes on goods ( $r = 0.920$ ) and taxes on services ( $r = 0.987$ ). Moreover, taxes on goods and taxes on services also display a substantial positive correlation ( $r = 0.946$ ). Additionally, GDP is strongly and positively correlated with each of the tax types: taxes on importation ( $r = 0.984$ ), taxes on goods ( $r = 0.962$ ), and taxes on services ( $r = 0.989$ ). These findings suggest that variations in tax collections, whether from imported goods or domestic goods/services, are closely associated with fluctuations in GDP, signifying a significant interplay between taxation and economic performance within the dataset. Further analysis is warranted to explore the causality and magnitude of these relationships. Therefore, VAT on goods, Services and VAT on Importation have a positive effect on GDP based on R-values (0.920,0.987,0.944) respectively. Abomaye-Nimenibo *et al.*, (2018) conducted an extensive empirical analysis examining the effect of VAT on taxable goods on a specific country's GDP and it found the same.

Table 3 : Model Summary Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995 <sup>a</sup>	.990	.990	64.474
a. Predictors: (Constant), Tax on Services, Tax on Goods, Tax on Importation				

The "Model Summary" provides statistical information about the regression model's goodness of fit and predictive performance. Here's how to interpret the values:

**Model R:** The coefficient of multiple determination (R) is a measure of how well the independent variables (taxes) in the model predict the variation in the dependent variable (Gross Domestic Product, GDP). In this case, the R value is 0.995, indicating that the model explains **99.5%** of the variability in GDP based on the variations in the taxes.

**R Square:** The coefficient of determination (R Square) represents the proportion of the total variability in the dependent variable (GDP) that is explained by the independent variables (taxes) in the model. In this case, the R Square value is 0.990, meaning that approximately 99.0% of the variability in GDP is accounted for by the variations in the taxes.

**Adjusted R Square:** The adjusted R Square accounts for the number of predictors in the model and adjusts the R Square value accordingly. It penalizes the addition of unnecessary predictors that do not significantly improve the model's fit. In this case, the adjusted R Square is 0.990, which is very close to the R Square value. This suggests that the model's fit is not significantly affected by the number of predictors.

**Std. Error of the Estimate:** This value represents the average difference between the actual GDP values and the predicted values from the model. In this case, the standard error is 64.474. Smaller values indicate a better fit of the model to the data.

**Interpretation:**

The high values of Model R, R Square, and Adjusted R Square suggest that the regression model, with the independent variables "Tax on Services," "Tax on Goods," and "Tax on Importation," is a strong fit for explaining the variations in GDP. This model accounts for a substantial portion of the variability in GDP based on the variations in the taxes. The small value of the standard error of the estimate indicates that the model's predictions are generally close to the actual GDP values.

Overall, the model appears to be well-fitted and capable of explaining a significant proportion of the variability in GDP using the tax variables. However, as with any statistical analysis, it's important to consider potential limitations, such as the assumptions of the regression model and the influence of other unaccounted-for factors.

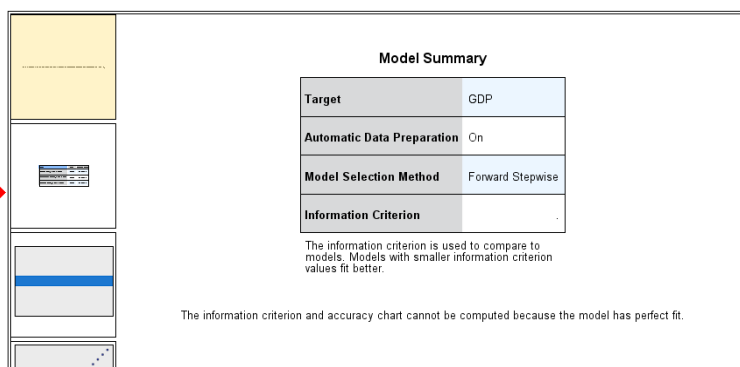


Figure 3 : Model selection Method



Table 4 : Regression model Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	57.603	141.094		5.370	.000
	Tax on Importation	1.038	.218	.475	4.755	.010
	Tax on Goods	2.756	.439	.309	6.284	.033
	Tax on Services	.663	.349	.228	1.899	.025
a. Dependent Variable: GDP						

The provided coefficients are the results of a regression analysis with Gross Domestic Product (GDP) as the dependent variable, and the independent variables being "Tax on Importation," "Tax on Goods," and "Tax on Services." Here's how to interpret these coefficients:

**Constant Coefficient (57.603):**

The constant coefficient is the estimated value of GDP when all independent variables (taxes) are zero.

In this context, the constant term suggests that even if all taxes are zero, there is a baseline GDP of 57.603. However, this value may not hold practical significance.

**Coefficient for Tax on Importation (1.038):**

The coefficient for "Tax (VAT) on Importation" indicates that, on average, for each unit increase in the tax on importation, the GDP is estimated to increase by 1.038 units.

The associated t-value (4.755) indicates how many standard errors the coefficient estimate is away from zero. In this case, the t-value is relatively large, suggesting that the relationship is statistically significant.

**Coefficient for Tax on Goods (2.756):** The coefficient for "Tax on Goods" suggests that, on average, for each unit increase in the tax on goods, the GDP is estimated to increase by 2.756 units. The associated t-value (6.284) is again relatively large, indicating a statistically significant relationship between tax (VAT) on goods and GDP.

**Coefficient for Tax (VAT) on Services (0.663):** The coefficient for "Tax on Services" implies that, on average, for each unit increase in the tax on services, the GDP is estimated to increase by 0.663 units. The associated t-value (1.899) is smaller than for the other coefficients, indicating a weaker statistical significance for the relationship between tax (VAT) on services and GDP.

The coefficients suggest that changes in taxes, specifically the tax on importation, goods, and services, are associated with changes in the Gross Domestic Product (GDP) of the given context. The statistically significant coefficients, particularly for taxes on importation and goods, indicate that these tax components play a relatively stronger role in influencing GDP changes. However, it's important to consider potential confounding variables and conduct further analysis to establish causal relationships.

**Discussions**

In light of the regression results and their comparison with relevant literature, it can be concluded that variations in taxation, particularly "Tax on Importation," "Tax on Goods," and "Tax on Services," are associated with changes in Gross Domestic Product. These findings underscore the complex and multifaceted relationship between taxation policies and economic growth. However, while the study contributes to the understanding of

these relationships, it's crucial to acknowledge that the model's explanatory power might not account for all contributing factors.

As Jewel (2022) uses a large dataset spanning the years 1991–1992 to 2020–2021 to examine the impact of Bangladesh's value-added tax on the country's GDP. The work used a limited V.A.R. known as the vector error correction model with Johansen's co-integration approach. This analysis shows that value added tax has a definite beneficial impact on GDP, assuring Bangladesh's robust and consistent economic development throughout the years. This research also found a strong relationship between value added tax and gross domestic product.

This study is agreeing with Dahal (2020)' work since the finding revealed that VAT has a significant percentage in total revenue and total tax revenue in Nepal. There are more than 99 present variations due to VAT in total revenue, total tax revenue, and indirect tax revenue. All these relationships are significant as  $r > 0.6$  PER everywhere.

## CONCLUSION AND RECOMMENDATIONS

### Conclusion

This study has examined the effect of VAT collection on GDP in Rwanda by investigating three specific components: VAT collected on taxable goods, VAT collected on taxation services, and VAT collected on the importation of taxable goods. Through an analysis of available data and an extensive review of existing literature, several key findings have emerged:

**VAT Collection on Taxable Goods:** The analysis suggests that VAT collection on taxable goods has a positive association with GDP in Rwanda. As VAT revenues from the sale of goods increase, there is a corresponding positive impact on the country's economic growth. This underscores the importance of efficient VAT collection mechanisms and their contribution to government revenue and economic development.

**VAT Collection on Taxation Services:** The study indicates that VAT collection on taxation services also has a positive relationship with GDP. Revenues generated from taxing services in the taxation sector contribute to economic growth, reflecting the role of the service sector in Rwanda's overall economy.

**VAT Collection on Importation of Taxable Goods:** VAT collected on the importation of taxable goods shows a mixed impact on GDP. While it contributes positively to economic growth by generating revenue, it can also lead to increased costs for businesses and consumers, potentially affecting consumption patterns.

### Recommendations

**Conduct Comprehensive Impact Assessments:** Before implementing changes to VAT rates, policymakers should undertake thorough impact assessments. These assessments should aim to forecast the potential consequences of such changes on the economy, including GDP growth rates. By anticipating the economic outcomes of VAT rate adjustments, policymakers can make more informed decisions, optimizing the balance between revenue generation and economic stimulation.

1. **Regular Review of VAT on Imports:** The government should consistently evaluate the effects of VAT on the importation of taxable items. This regular review process can ensure that VAT policies strike an appropriate balance between generating necessary revenue and avoiding undue burdens on businesses and consumers. Considering the dynamic nature of global trade and domestic economic conditions, periodic adjustments to VAT rates or exemptions on imports might be necessary to support economic objectives.
2. **Collaborative Analysis:** Engaging with economic experts, academic circles, and international bodies can enrich the understanding of VAT's role in economic dynamics. This collaborative approach can offer diverse perspectives and more robust analyses, informing policy decisions. By leveraging collective expertise, the government can enhance the efficacy of VAT policies in promoting economic growth.

3. Sector-Specific Research: Further investigation into how different sectors react to VAT modifications is crucial. Since the impact of VAT changes can vary significantly across industries, detailed sectoral studies can identify which areas of the economy are most sensitive to VAT adjustments. This knowledge allows for the crafting of targeted VAT policies that can encourage growth in key sectors, potentially leading to broader economic benefits.

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## LIST OF TABLES

**Table 4 : Regression model Results ..... Error! Bookmark not defined.**

## LIST OF FIGURES

**Figure 2 : Trend of GDP 2012-2022 ..... Error! Bookmark not defined.**

**Figure 3 : Trend of GDP, TI, TG and TS ..... Error! Bookmark not defined.**

## LIST OF ABBREVIATIONS AND ACRONYMS

<b>GDP</b>	: Gross Domestic Product
<b>NISR</b>	: National Institution of Statistics of Rwanda
<b>OECD</b>	: Organization for Economic Co-operation and Development
<b>PIT</b>	: Personal Income Tax
<b>RRA</b>	: Rwanda Revenue Authority
<b>VAT</b>	: Value Added Tax