EFFECT OF TAX COMPLIANCE ON SURVIVAL OF SMALL AND MEDIUM ENTERPRISES IN RWANDA. A CASE STUDY OF SMALL AND MEDIUM TAXPAYERS IN GASABO DISTRICT 2018-2021

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ABSTRACT

This study sought to establish how Tax Compliance influences the survival of Small and Medium Enterprises in Rwanda-A case study of medium taxpayers in Gasabo district. However, establishing the level of tax compliance by SMEs from 2018 to 2021. Specifically, the study focused on; evaluating SMEs level of tax compliance in Rwanda from 2018 to 2021, identifying the strategies that enforce tax compliance in Rwanda and examining the extent to which survival of SMEs depends on tax compliance in Rwanda. The study also revealed the significance of sensitizing taxpayers and SMEs in particular by the tax administration on how to keep financial records and books of accounts would lead to self-tax assessment hence reducing costs incurred by tax administration on tax collections. The researcher and academic community use this study as a stepping stone for further research as it is giving a basis for further academic investigation in this area, especially regarding the factors affecting the tax compliance. Theoretically, having contributed to literature and methodology of such future studies, it also prompts more researchers in this area. This study was carried out on the basis of a case study where the researcher used a descriptive research design. The total population of this study compromised of the 2250 Small Medium Enterprise taxpayers and 25 staff from RRA Gasabo block. The study analyzed primary collected data from the respondents and rely on questionnaires in the collection of the primary data. Equally, the study used secondary data relating to the effect of tax compliance on survival of small and medium enterprises in Rwanda. They included editing, coding and summarizing the data into frequencies and percentages using Statistical Package for Social Sciences (SPSS) so as to aid the researcher to meaningfully describe the distribution of responses using a few indices. It was evident that the level of SMEs tax compliance is low. SMEs are extremely diverse and their tax compliance costs are influenced by a range of factors. Regression results indicated the goodness of fit for the regression level of tax knowledge and the compliance of SMEs was satisfactory in the linear regression. An R squared of 0.312 indicates that 31.2% of the variances in tax compliance of SMEs are explained by the variances in tax knowledge level in the linear model. The study made findings that escaping without any punishment after being detected for not reporting one's exact income is the greatest influence of compliance with a mean of 4.04 and a standard deviation of 0.677. Affording to pay the penalty rates because they are low is another influence to compliance with a mean of 3.95 and a standard deviation of 0.792. Fear of tax audits and prosecution is a close third influence of compliance of SMEs with a mean of 2.00 and a standard deviation of 0.600. Other key tax rate factors that influence compliance are as follows: Filing tax returns and paying taxes on time to avoid fines and penalties with a mean of 1.97 and a standard deviation of 0.714, Stiff fines and

penalties for late filing with a mean of 1.97 and a standard deviation od0.793, high chance of being detected for non-payment of taxes with a mean of 1.96 and a standard deviation of 0.761 and failure to pay taxes leading to fines and penalties. The study makes a finding that respondents having normally keep purchase invoices and other invoices/receipts of expenses for the company at a mean of 4.15 and a standard deviation 1.14 and daily financial operations of the company done by shareholders the respondent is supposed to comply with at a mean of 3.99 and standard deviation of 1.20 have the biggest influences on compliance by SMEs. Another factor that greatly influences compliance is keeping your financial records and preparing accurate financial statements would increase your tax compliance with a mean of 4.02 and standard deviation 1.17. Further on The tax audit findings reveal some penalties and fines to be paid with a mean of 4.05 and a standard deviation of 1.01 is also a great influence of compliance. The study concluded that while charging penalties and fines to non-tax compliant has done little to avert the problem, tax auditors from RRA should put much time to discuss with taxpayers on how to declare and pay taxes on time and the type of penalties and fines they will have to pay if they failure to comply with tax laws. RRA should work hand in hand with tax advisors as they are the ones meeting taxpayers on daily basis.

INTRODUCTION

Globally, Small and Medium Enterprises (SMEs) are recognized as the main engine for growth and development. In other words, Small and Medium Enterprises (SMEs) are considered as a key engine of economic growth in developing and developed countries (Atawodi & Ojeka, 2012). The importance of SMEs in the economic development of any country in recent years cannot be underrated especially with regard to creation of employment, innovation, uplifting the people's standard of living and financial contribution to the growth of the country's Gross Domestic Product (OECD, 2015).

Tax compliance is the taxpayers' ability and willingness to comply with the relevant tax laws and regulations (Ayuba *et al.,* 2016). This is also referred to as the accurate reporting of income and claiming of expenses in accordance with stipulated tax laws (Saipei & Kasipillai, 2013). Tax collection has been a major concern among many governments all over the world (Loureiro, 2014). Tax compliance is one of the major challenges facing small and medium

enterprises (SMEs). According to Pope and Abdul-Jabbar (2008), government regulations, particularly taxation, are a major concern for the business sector throughout the world. International experience demonstrates that regulatory burdens appear to fall disproportionately on small and medium enterprises (SMEs). Businesses, in whatever form, size and/or sector are required by law to comply with all relevant legislation, including taxation.

In European countries, small and medium businesses play a significant role (Kaledin *et al.,* 2018). Faridy *et al.* (2014) state that in Bangladesh, 768 922 listed SME establishments account for about 45% of the total value-added in manufacturing; 80% of industrial employment; about 25% of the total labor force; and 90% of all businesses. They found that, in terms of Bangladesh SME compliance with VAT law, the complexity of the law can influence taxpayers' ability to comply. They discovered that because of the complexity of the tax system, some businesses (those who can

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afford it) may engage expert tax professionals to help them with sophisticated tax planning to minimize tax payments. Additionally, they found that negative perceptions about government policy and spending of tax revenue may contribute to non-compliance. Other negative influences on compliance include perceptions of tax officers being unfair, corrupt and abusing the discretionary power afforded to them.

SMEs in Malaysia are subject to income tax, either as individual (unincorporated businesses) or as corporate taxpayers (incorporated businesses), depending on the business establishment (Pope & Abdul-Jabbar, 2014). The taxation of individual and corporate businesses is governed by the ITA 1967, with almost similar tax provisions. Business taxpayers are required by law to file an annual tax return correctly and in full, to keep sufficient records and documentations and to observe other tax-related requirements. International experiences often indicate the difficulties faced by SMEs in managing government laws and regulations particularly in maintaining proper records for management and taxation purposes (Gravelle, 2013). The issues facing small businesses in relation to regulatory costs are worldwide phenomena and almost identical in the US, UK, Australia and New Zealand. These include a lack of understanding of the regulatory requirements and frequent changes in regulations (De Wit & De Kok, 2014).

In Malawi, over 52,000 SMEs contribute about 30% of total tax revenues (Malawi revenue collection reports, 2011-2017). To mitigate risks associated with SME non-compliance, tax administration in Malawi has implemented a number of strategies either as deterrence measures or as a treatment to factors that encourage such behaviors. These include taxpayer education, exemption from penalties for voluntary disclosure of underpayments, adoption of an electronic fiscal device (EFDs) as risk management innovation, modernization of its systems. There has been a minimal impact as SMEs are numerous, difficult to handle, therefore making them risky group.

Moreover, they are challenged with limited management skills and formal education, access to credit, lack of technical know-how and inability to acquire skills and modern technology. Further to this, SMEs lack access to credit (Basteri, 2016), a poor keeping of business transactions leaving no audit trail (OECD, 2004). Despite all the initiatives taken by tax administration in improving tax compliance in Malawi, SMEs overall compliance level remains as low as 30% (2015/2016 MRA Annual Operations Report).

Gaalya (2015) posits that inadequate knowledge and skills about tax procedures are the major qualities of most SMEs in Uganda, as most owners hire incompetent family members to keep proper financial records. Many SME taxpayers do not know the domain of tax professionals since they lack the independence and have no tax competency (Land, 2014). According to Adebisi and Gbegi (2013) one of the chief features of SMEs is the lower level of the specialist tax expertise and greater owner involvement in day-today management and this call for them to search for assistance from experts (Kawor & Kportorgbi, 2014). Consequently, Uganda is still characterized by the low income tax compliance levels, in the face of the numerous advocacies for voluntary tax compliance (Bird, 2015). Therefore, the government has adopted tax compliance administrative measures like penalties, rates and tax audits to ensure tax enforcement instead of compliance which have still failed to yield. Uganda's income tax compliance was very low at 38% by the end of 2005 (Arturo *et al.,* 2013).

In Kenya, 34.3% of the total economy is contributed by SMEs, which accounts for 77% of the total employment statistics (Newman & Nokhu, 2018). The government of Kenya has made attempts to bring the underground economy into the tax net under the presumptive tax by introducing the Finance bill of 2007 implemented in 2008. It was named the Turnover Tax (TOT). It is a simple tax on the gross income of any resident person whose turnover from business does not exceed Kshs.5 million during any year of Income. It was introduced

by the Finance Act of 2007 through a provision of the Income Tax Act, Cap 470, and effective as from 1st January 2008. This is aimed at mobilizing revenue from the SMEs and improve their compliance (Income Tax Act, Cap 470).

Kigali City is made up of three districts (Nyarugenge, Kicukiro and Gasabo) with 35 sectors and it has a population of approximately 1million people. Gasabo district is 70% urban with significant part being rural. The population is relatively young with the youth making up about 60%, with women making slightly above 50% (RDB, 2019). Gasabo district has 2250 medium taxpayers and 60,264 small taxpayers. However, some of those SMEs do not keep proper books of accounts. Due to the fact that keeping proper books of accounts remained a big issue in most of SMEs, non-tax compliance (tax evasion and tax avoidance) have become a major concern by Rwanda Revenue Authority and Rwanda Private Sector Federation (RRA, 2021).

The financial transactions recorded must be objective, sufficient, relevant and reliable to make informed decisions and judgments by interest groups (Sutton, 2014). A number of Small and Medium Enterprises have not given much attention to book keeping in relation to their business transactions, despite its importance in the success of businesses and Tax compliance (Bahizi, 2013). This could be lack of sound knowledge in bookkeeping practices by owners or respective managers. More information pertaining to the issues of bookkeeping by small enterprises will be dealt with in the literature review. Tax revenue is the source of funds used for development projects such as provision of infrastructure like good roads, stable power supply, stable water supply etc. (Tobias *et al.,* 2013). All of which combine to create an enabling environment for businesses and in turn the economy at large to grow. Small and Medium Enterprises taxpayers being profit generating establishments are also expected to pay their dues. The important question however is "how much tax should they be levied". Small and medium enterprises are volatile establishments that need

special treatment. Putting their nature into consideration, every little resource at their disposal can make a world of difference. For this reason, a number of Rwandan SMEs choose to remain in the informal sector because they feel the cost of tax compliance is too high. And a considerable number of those who pay taxes only do so because they are coerced by the authorities

Problem Statement

SMEs are important players in a country's tax system because they remit taxes. IMF (2014) opines that, though the evidence is not unequivocal, most research suggests that traders who are small business owner are more likely to cheat and not comply than other groups of taxpayers. Small business owners are considered a high risk group in terms of tax compliance by the Organization for Economic Co-operation and Development (OECD). In many cases though, it is impossible to prove noncompliance (OECD, 2015).

Tax compliance has been a topic of great interest to Revenue authorities especially in the developed countries. Hostility towards tax compliance is an age old problem. Taxes are considered a problem by everyone. Not surprising, taxation problems date back to the earliest recorded history. Developing countries, perhaps due to their frequent budget deficits have not been able to conduct comprehensive research on the behavior of taxpayer in relation to tax compliance. Hostility between the taxpayers and tax collectors on issue relating to tax compliance is evidenced by frequent tax evasion reports in our local newspapers (The New times, 2013 may, 9) and outward resistance from taxpayers for example the protest by taxpayers over the implementation of Electronic Billing Machine (EBM).

Harelimana *et al.* (2018) opines that tax plays an important role in the growth of any economy, so tax compliance is useful to the economy because tax evasion hampers government revenue collection, thus inefficiency in government spending as it diminishes the capacity of the state to mobilize domestic revenues, resources that are needed for

investments. He says that in 2018 for example, the amount lost to tax evasion represented about twice the amount the country spent on health care. He posits that tax evasion also damages the country's growth capacity by discouraging both local and foreign investors. According to Nyaribande and Harelimana (2018) the high tax rate and burden in Rwanda, which is related to the high levels of tax evasion, is the leading disincentive to business activity. There has been hostility between the taxpayers and tax collectors on issue relating to tax compliance in Rwanda (Rugarama & Mpakaniye, 2022). Most SMEs do not pay the taxes and tax evasion among SMEs remains far above the ground, with a tax gap of about 35% and 33.1% in 2019 and 2020 respectively (RRA, 2021).

It is for this reason that research was undertaken to identify the effect of tax compliance on survival of SMEs in Gasabo district. It is also instructive to note that while extensive research that has been done in this area, there has been none in Gasabo district specifically. In this context, there should be an understanding on the effect of tax compliance to enable the government to improve on its tax collection among the SMEs in to enhance their survival in Rwanda.

Research Hypotheses

- H_O: There is no significant relation between tax compliance and survival of small and medium enterprises in Rwanda.
- H_1: There is a significant relation between tax compliance and survival of small and medium enterprises in Rwanda.

LITERATURE REVIEW

Psychology theory

Psychology theory refers to a state of affairs when taxpayers are influenced by emotional factors to comply with their tax commitments (Trivedi, 2015). They are entrenched on taxpayers" principles and morals. Therefore, the psychological theory proposes that taxpayer may obey to pay tax voluntarily; however; the possibility of detection of those who are not compliant is minimal. In contrast

with economic theories that emphasize on increasing of inspection and penalties as a way of boosting obedience, psychology theories emphasize on moderating a person's attitudes towards tax structure.

According, taxpayers may be prevented from tax evasion through economic theories for fear of punishment and the feeling that they are under a moral obligation to pay taxes; hence, tax compliance (Cobham, 2015). While the Psychology theory in one way or another can resemble the planned behaviour theory; the only difference could be that the planned behaviour theory is a long-term process. It may start from childhood while the psychology theory can begin at any stage (Trivedi, 2015).

It is assumed that the taxpayer under the psychology theory is willing to pay the tax due to psychological disturbances imposed on him. For instance, if an individual has been penalized for not paying tax in time, then next time he/she would know that if he does not pay the tax; the same problem would happen to him/her (Cobham, 2015).
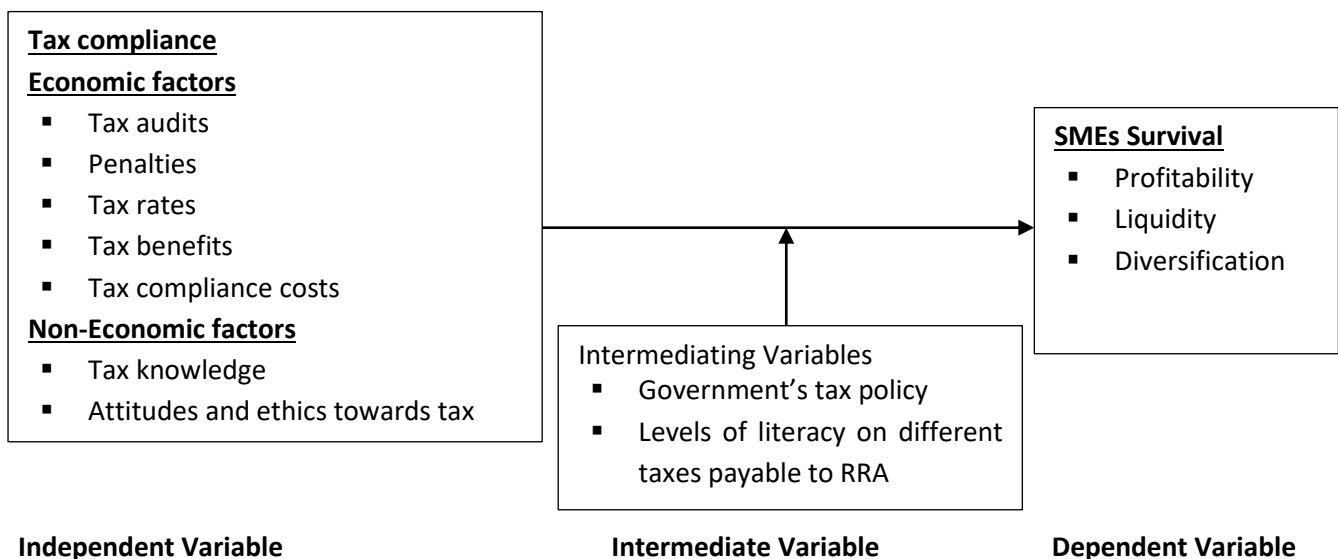
Psychology theory is related to this study in such a way that taxpayers are influenced to comply with their tax obligations by psychological factors. They focus on the taxpayers' morals and ethics. The theories suggest that a taxpayer may comply even when the probability of detection is low. As opposed to the economic theories that emphasize increased audits and penalties as solutions to compliance issues, psychology theories lay emphasis on changing individual attitudes towards tax systems.

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.

Tax compliance
Economic factors
- Tax audits
- Penalties
- Tax rates
- Tax benefits
- Tax compliance costs

Non-Economic factors
- Tax knowledge
- Attitudes and ethics towards tax

Intermediating Variables
- Government's tax policy
- Levels of literacy on different taxes payable to RRA

SMEs Survival
- Profitability
- Liquidity
- Diversification

Independent Variable   **Intermediate Variable**   **Dependent Variable**

Figure 1: Conceptual framework

Source: Author, 2022

Figure 1 demonstrates that there is correlation between tax compliance as an independent variable and SMEs survival as dependent variable and the intervening variables such as government policy and literacy of taxpayers' that can falsify or cause change on economic security if not well controlled. Survival and growth of SMEs depends on various factors like tax compliance, internal and external political stability, easy accessibility to external financing, economic factors, geographic factors and so on. The taxpayers' attitude on compliance may be influenced by many factors, which eventually influence taxpayer's behaviour. Those factors which influence tax compliance and/or non- compliance behaviour are differing from one country to another and also from one individual to another (Kirchler, 2017). However, this study aimed at exploring how tax compliance influences the survival of SMEs**.**

METHODOLOGY
The study adopted a descriptive, cross sectional and correlational research designs. It was descriptive because it used descriptive statistics to describe the two variables of the study; and it was cross sectional since it was carried out over a short period of time and data was collected as a one stop event. The total population of this study compromised of the 2250 Small Medium Enterprise taxpayers and 25 staff from RRA Gasabo block (RRA, 2021). The study analyzed primary collected data from the respondents and rely on questionnaires in the collection of the primary data. Equally, the study used secondary data relating to the effect of tax compliance on survival of small and medium enterprises in Rwanda. A case study of small and medium taxpayers in Gasabo district 2018-2021. Both qualitative and quantitative techniques were employed for data manipulation. They included editing, coding and summarizing the data into frequencies and percentages using Statistical Package for Social Sciences (SPSS) so as to aid the researcher to meaningfully describe the distribution of responses using a few indices.

RESULTS AND DISCUSSIONS

Factors affecting tax compliance in Rwanda.

The objective was to assess the factors affecting tax compliance in Rwanda. Respondents' opinion on factors affecting tax compliance in Rwanda was captured using 1-Strongly disagree; 2 – Disagree; 3 – Indifferent; 4 – Agree; 5 –Strongly agree. The findings presented in the following section. The study used percentages, mean and standard deviation in the analysis.

Tax Knowledge Level

The findings in table 1 present the findings on how knowledge of tax system and administration affects tax compliance of SMEs.

Table 1: Respondents views on **Tax Knowledge Level**

	1	2	3	4	5	Mean	Std dev
I am aware of tax laws.	31.3%	31.3%	19.3%	12.0%	6.0%	2.30	1.21
I am aware of how the tax system is structured and administered	28.9%	25.3%	20.5%	19.3%	6.0%	2.48	1.26
Rules on taxation are too sophisticated for a non-professional to understand	2.4%	24.1%	20.5%	22.9%	30.1%	3.54	1.23
I know how to declare actual income received from all sources to the tax authority	6.0%	2.4%	13.3%	32.5%	45.8%	4.10	1.11
Tax laws complexity adds to incorrect tax returns.	9.6%	30.1%	20.5%	18.1%	21.7%	3.12	1.32
The tax officials do not provide accurate advice on tax	16.9%	8.4%	21.7%	28.9%	24.1%	3.35	1.38
Perceived fairness of the tax system encourages compliance	6.0%	3.6%	8.4%	42.2%	39.8%	4.06	1.09

Source: Primary data, 2022.

The study makes a finding that respondents having enough information on tax and tax procedures at a mean of 2.3 and a standard deviation 1.21 and understanding all types of taxes the respondent is supposed to comply with at a mean of 2.48 and standard deviation of 1.46 have the biggest influences on compliance by SMEs. This indicates that, majority of the respondents have sufficient information on tax and tax procedures and know the types of taxes they are supposed to comply with and this points towards compliance.

Another factor that greatly influences compliance is awareness of how the tax system is structured and administered with a mean of 2.48 and standard deviation 1.46. This indicates that majority of the respondents highly agree that SME owners and employees are aware of how the tax system is structured and administered.

Rules on taxation are too sophisticated for a non-professional to understand with a mean of 3.54 and a standard deviation of 1.23 is also a great influence of compliance. This shows that owners and employees of SMEs do not comply when faced with problems while filing returns.

The study implies that knowing how to declare actual income received from all sources to the tax authority with a mean of 4.10 and standard deviation 1.11 also influences compliance. The study makes a finding that, key factors as following: Perceived fairness of the tax system with a mean of 4.06 and standard deviation of 1.09, tax officials do not provide accurate advice on tax with a mean of 3.35 and a standard deviation of 1.38, taxation rules being too sophisticated for a non-professional to understand with a mean of 3.12 and a standard deviation 1.32. The study makes a finding that, perceived fairness of the tax system had means of

1.94 and a standard deviation of 0.957. This implied that it did not have much impact on compliance. This agrees with findings of a research done by Mukhlis et al. (2013) show that tax knowledge is strongly influenced by the education level of the taxpayers. Their research concluded that basically the SME sector businesses can understand their tax obligations when there is the aspect of justice and tax benefit can be received in real terms by businesses in the SME sector in East Java.

Correlation analysis

The data in table 2 presents the results of the computation on the effect of the level of tax knowledge on the compliance of SMEs in Gasabo District.

Table 2: Correlation Analysis on Tax Knowledge Level

		Tax Knowledge Level	Compliance
Tax Knowledge Level	Pearson Correlation	1	
	Sig. (2-tailed)		
Compliance	Pearson Correlation	.649**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

The correlation establishes a positive relationship between the level of tax knowledge and the compliance of SMEs. This implies that, a positive change in the level of tax knowledge will trigger a strong change in tax compliance of SMEs. The significance reflected at level 0.05, recording a p value of 0.000 which indicates that it is less than the significance. Thus, concluding that it's positively correlated and highly statistically significant (P-Value = 0.000 < 0.05, R-Value = 0.649).

Regression analysis

Regression analysis was conducted to empirically determine level of tax knowledge and the compliance of SMEs. Regression results in Table 3 indicate the goodness of fit for the regression level of tax knowledge and the compliance of SMEs was satisfactory in the linear regression. An R squared of 0.312 indicates that 31.2% of the variances in tax compliance of SMEs are explained by the variances in tax knowledge level in the linear model.

Table 3: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442[a]	.301	.312	.65724
a. Predictors: (Constant), Tax Knowledge level				

An ANOVA table shows how well the regression equation fits the data. An analysis was done at 95% of confidence level. The F critical is 12.14 and the P value is 0.000. This analysis confirmed that the level of tax knowledge has a relationship with compliance of SMEs as shown in Table 4.

Table 4: ANOVA of Tax Knowledge Level and Tax Compliance

	Model	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	12.14	1	12.14	5.020	.000[a]
1	Residual	28.684	49	.476		
	Total	40.824	50			

b. Dependent Variable: Compliance

c. Predictors: (Constant), Tax Knowledge Level

The coefficients table seeks to predict SME compliance from the level of tax knowledge, as well as determine whether the level of tax knowledge contributes statistically significantly to the model. The "B" column represents the constant figure to regression equation. According to Table 5, the regression equation will be Y= 2.487 + 0.342X1, where Y is the dependent variable (SME compliance) and X1 is independent variable (Tax knowledge level) which concludes that the level of tax knowledge is taking the constant SME compliance by 2.487 and an increase in the level of tax knowledge results into 0.342 increase in compliance by SMEs. They are also highly statistically significant. The constant was significant (0.000) as per Table 5 ($p < 0.05$). The results of the analysis are shown in Table 5 and the fitted model from this analysis is shown below:

$$Y= 2.487 + 0.342X1$$

Table 5: Model Coefficients of Tax Knowledge Level and Compliance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.487	.270		7.169	.000
	Tax knowledge level	.342	.062	.444	2.241	.000

    a.   Dependent variable: Compliance

Tax Rates

The findings in table 6 present the findings on how tax rates affects tax compliance of SMEs.

Table 6: Respondents views on Tax Rates

	1	2	3	4	5	Mean	Std dev
I file returns	6.0%	13.3%	13.3%	24.1%	3.4%	3.86	1.28
The cost required for filling the tax returns is high.	9.6%	14.5%	16.9%	25.3%	3.7%	3.59	1.34
The rate of turnover tax is higher than profit margins	2.4%	27.7%	25.3%	26.5%	8.1%	3.30	1.13
The tax rates are too high.	18.1%	18.1%	25.3%	13.3%	5.3%	3.10	1.44
Tax laws complexity adds to incorrect tax returns	19.3%	20.5%	24.1%	21.7%	4.5%	2.92	1.34
The rate of turnover tax is prohibitive	6.0%	14.5%	32.5%	14.5%	2.5%	3.53	1.25
I am able to determine accurately my tax liability and income	2.4%	21.7%	22.9%	34.9%	8.1%	3.45	1.11

Source: Primary data, 2022.

The study makes a finding that respondents filling returns at a mean of 3.86 and a standard deviation 1.28 and that the cost required for filling the tax returns is high at a mean of 3,59 and standard deviation of 1.34 have the biggest influences on compliance by SMEs. This indicates that, majority of the respondents have sufficient information tax rates and know the types of taxes they are supposed to comply with and this points towards compliance.

Another factor that greatly influences compliance is rate of turnover tax is higher than profit margins with a mean of 3.30 and standard deviation 1.13. Tax rates are too high with a mean of 3.11 and a standard deviation of 1.44 is also a great influence of compliance. When it comes to tax laws complexity adding to incorrect tax returns with a mean of 2.92 and standard deviation 1.34. This indicates that majority of the respondents highly agree that SME owners and employees are aware of how the tax system is structured and administered.

The rate of turnover tax is prohibitive with a mean of 3.53 and a standard deviation of 1.25 is also a great influence of compliance. This shows that owners and employees of SMEs do not comply when faced with problems while filing returns. Lastly on whether SMEs are able to determine accurately my tax liability and income with a mean of 3.45 and standard deviation 1.11 also influences compliance. This in line with a similar research done by Mukasa (2011) gave the result that the tax knowledge and perceived fairness taxes have a causal relationship with tax compliance. Therefore, it is important to analyze the role of education as far as the role of the tax, the tax knowledge and a sense of justice taxpayer to tax compliance businesses, especially SMEs crafts field in East Java.

Correlation analysis

The data in table 7 presents the results of the computation on the effect of tax rate on the compliance of SMEs in Gasabo District.

Table 7: Correlation Analysis on Tax rate

		Tax Rate	Compliance
Tax Rate	Pearson Correlation	1	
	Sig. (2-tailed)		
Compliance	Pearson Correlation	.527[**]	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

The findings in below Table 7, present the correlation relationship between the effects of tax rates on the compliance of SMEs. It indicates that there exists a positive relationship between tax rates and compliance of SMEs in Gasabo District. This implies that, a positive change in tax rates will trigger a strong change in tax compliance of SMEs. The significance reflected at level 0.05, recording a p value of 0.000 which indicates that it is less than the significance. Thus, concluding that it's positively correlated and highly statistically significant (p= 0.000 < 0.05, R-Value = 0.527).

Regression analysis

Regression analysis was conducted to empirically determine tax rate and the compliance of SMEs. Regression results in Table 8 indicate the goodness of fit for the regression tax rate and the compliance of SMEs was satisfactory in the linear regression. An R squared of 0.282 indicates that 28.2% of the variances in tax compliance of SMEs are explained by the variances in tax rate in the linear model.

Table 8: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.209[a]	.298	.282	.65724
b. Predictors: (Constant), Tax rate				

An ANOVA table reports how well the regression equation fits the data. An analysis was done at 95% of confidence level. The F critical is 31.299 and the P value is 0.000. This analysis confirmed that tax rates have a relationship with compliance of SMEs as shown.

Table 9: ANOVA of Tax Rate

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	31.299	1	31.299	5.020	.000[a]
1	Residual	28.684	49	.476		
	Total	59.923	50			
b. Dependent Variable: Compliance						
c. Predictors: (Constant), Tax Rate						

The coefficients table provides to predict SME compliance from the tax rate and also determine whether the tax rates contribute statistically significantly to the model. The "B" column represents the constant figure to regression equation. According to Table 10, the regression equation will be Y= 0.755 + 0.367X2, where Y is the dependent variable (SME compliance) and X_2 is independent variable (Tax rates) which concludes that the tax rates are taking the constant SME compliance by 0.755 and an increase in the tax rates results into 0. Increase in compliance by SMEs. They are also highly statistically significant. The constant was significant (0.000) as per Table 10 (p < 0.05). The results of the analysis are shown in Table 10 and the fitted model from this analysis is shown below: Y= 0.755 + 0.367X2.

Table 10: Model Coefficients of Tax rate and Compliance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.755	.698		6.365	.000
	Tax Rate	.367	.152	.308	2.663	.000
	b. Dependent variable: Compliance					

Fines and Penalties

The findings in table 11 present the findings on how Fines and Penalties affects tax compliance of SMEs.

Table 11: Respondents views on Fines and Penalties

	1	2	3	4	5	Mean	Std dev
I file my returns and pay taxes in time to avoid fines and penalties.	.0%	.5%	.5%	.5%	.5%	3.53	1.25
Failure to pay taxes leads to fines and penalties	.4%	.7%	.9%	.9%	.1%	3.45	1.11
There is a high chance of being detected for non-payment of the taxes	.1%	.1%	.3%	.1%	.5%	3.29	1.53
I fear tax audits and prosecution	.8%	.9%	.7%	.1%	.5%	3.38	1.08
Fines and penalties charged for late fillings are stiff.	.6%	.5%	.5%	.3%	.1%	3.34	1.16
The penalty rates are very low and I can afford to pay the penalty	.9%	.5%	.7%	.1%	.9%	2.86	1.41
If detected not reporting my exact income, I believe that the tax authority is tolerant to my offence and most likely I will escape without punishment	.9%	.7%	.3%	.7%	.5%	2.77	1.36

Source: Primary data, 2022.

The study makes a finding that escaping without any punishment after being detected for not reporting one's exact income is the greatest influence of compliance with a mean of 4.04 and a standard deviation of 0.677. Affording to pay the penalty rates because they are low is another influence to compliance with a mean of 3.95 and a standard deviation of 0.792. Fear of tax audits and prosecution is a close third influence of compliance of SMEs with a mean of 2.00 and a standard deviation of 0.600. Other key tax rate factors that influence compliance are as follows: Filing tax returns and paying taxes on time to avoid fines and penalties with a mean of 1.97 and a standard deviation of 0.714, Stiff fines and penalties for late filing with a mean of 1.97 and a standard deviation od0.793, high chance of being detected for non-payment of taxes with a mean of 1.96 and a standard deviation of 0.761 and failure to pay taxes leading to fines and penalties.

This agrees with Kirchler *et al.,* 2017) fines and penalty rates may substitute each other due to their multiplicative linkages as long as neither of them is

set to zero. Higher fines simply make evading taxes more hazardous for taxpayers and should deter them from evasion. Empirically, the deterrent effect of fines could not always be supported. The observed effects were weaker than expected and some studies even suggest that an increase of penalties can have undesirable effect and result in more tax avoidance (Kirchler *et al.,* 2017).

Correlation analysis

The data in table 12 presents the results of the computation on the effect of Fines and Penalties on the compliance of SMEs in Gasabo District.

Table 12: Correlation Analysis on Fines and Penalties

		Fines and Penalties	Compliance
Fines and Penalties	Pearson Correlation	1	
	Sig. (2-tailed)		
Compliance	Pearson Correlation	.518[**]	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

The findings in below Table 12, present the correlation relationship between the effect of fines and penalties on the compliance of SMEs which indicates that there exists a positive relationship between fines and penalties and compliance of SMEs in Gasabo District. This implies that, a positive change in fines and penalties will trigger a strong change in tax compliance of SMEs. The significance reflected at level 0.05, recording a p value of 0.518 which indicates that it is more than the significance. Thus, concluding that it's positively correlated and but not statistically significant (p= 0.518 > 0.05, Correlation coefficient = 0.518).

Regression analysis

Regression analysis was conducted to empirically determine Fines and Penalties on the compliance of SMEs. Regression results in Table 13 indicate the goodness of fit for the regression Fines and Penalties and the compliance of SMEs was satisfactory in the linear regression. An R squared of 0.285 indicates that 28.5% of the variances in tax compliance of SMEs are explained by the variances in Fines and Penalties in the linear model.

Table 13: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.321[a]	.294	.285	.65724
c. Predictors: (Constant), Fines and Penalties				

An ANOVA table shows how well the regression equation fits the data. An analysis done at 95% of confidence level. The F critical is 2.032 and the P value is 0.000. This analysis confirmed that the fines and penalties has a relationship with compliance of SMEs as shown below.

Table 14: ANOVA of Fines and Penalties

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	31.299	1	31.299	2.032	.000[a]
	Residual	28.684	49	.476		
	Total	59.923	50			
b. Dependent Variable: Compliance						
c. Predictors: (Constant), Fines and Penalties						

The coefficients table provides to predict SME compliance from the tax rate and also determine whether the tax rates contribute statistically significantly to the model. The "B" column represents the constant figure to regression equation. According to Table 15, the regression equation will be Y= 3.078 + 0.245X3, where Y is the dependent variable (SME compliance) and X3 is independent variable (Fines and penalties) which concludes that the tax rates are taking the constant SME compliance by 3.078 and an increase in the tax rates results into 0. Increase in compliance by SMEs. They are also highly statistically significant. The constant was significant (0.000) as per Table 15 (p < 0.05). The results of the analysis are shown in Table 15 and the fitted model from this analysis is shown below: Y= 3.078 + 0.245X3.

Table 15: Model Coefficients of Fines and Penalties

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.078	.698		6.365	.000
	Fines and Penalties	.245	.152	.308	2.663	.000
c.	Dependent variable: Compliance					

CONCLUSION AND RECOMMENDATIONS

From the findings the study concludes that:

The tax knowledge of many taxpayers is still limited, leading to their awareness and attitude toward tax compliance being insufficient. Therefore, to limit violations and promote voluntary tax compliance, tax authorities and related agencies need to have solutions to improve taxpayers' tax knowledge by simplifying administrative procedures and strengthening training, propaganda, and dissemination of tax policies, thereby improving the compliance attitude of taxpayers. Taxes are considered the main source of budget revenue of a country, an important tool for the government to regulate the macro economy, promote investment, redistribute wealth and income in society, etc. Therefore, the issue of tax compliance is of great interest to policymakers in countries around the world, especially in developing countries. One of the main problems plaguing policymakers in Rwanda is coming up with solutions to encourage higher levels of tax compliance

Based on the findings of this study, the researcher came up with several recommendations.

The findings in this study showed positive relationship that is highly statistically significant. This means that there is credible evidence that the level of tax knowledge of an SME owner or employee greatly influences their compliance, and some proof that it does. Further studies can be done using convenience sampling, non-parametric (Mann-Whitney and Kruskal-Wallis) tests, multivariate data analysis, and vignette-based questionnaire for looking at exactly what level of tax knowledge will ensure total compliance.

The findings in this study showed positive relationship that is highly statistically significant. This means that there very credible evidence that tax rates influence compliance of SMEs and some proof that it does. Further studies using data with convenience sampling, non-parametric (Mann-Whitney and Kruskal-Wallis) tests, multivariate data analysis, and vignette-based questionnaire for looking at the right tax rates that will ensure total compliance.

The research recommends that use of other research design models such as online surveys, telephone surveys, and statistical tests such as Chi-square, t-test analysis, ordinary least squares analysis, independent sample t test, bivariate data analysis, discriminant analysis, open analysis, fixed-effect regression, Kolmogorov-Smirnov test, and multivariate regression for further study as the findings in this study showed a positive but not statistically significant relationship between fines and penalties and compliance. This means there is

reliable evidence that the influence of fines and penalties on compliance by SMEs, but that there is no proof that it will not affect it.

Suggestion for further research

This study mainly focused on investigating the effect of a few factors on compliance of SMEs in Gasabo District. The study recommends that the future researchers should look into compliance patterns of the other three sub-counties in the greater Gasabo District and compare them to Gasabo District SMEs. Future researchers should approach the topic with different method of research methodologies.

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