

Factors Influencing Tax Compliance among Small and Medium Enterprises in Iringa Municipality, Tanzania.

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ABSTRACT

The study examined the factors influencing tax compliance among Small and Medium Enterprises (SMEs) in Iringa Municipality, Tanzania. The study specifically assessed the influence of taxpayer education, tax rates and tax penalties on tax compliance among SMEs. The study was guided by the Theory of Reasoned Action and the Standard Deterrence Model. A quantitative approach and cross-sectional research design were adopted. The target population comprised 172 licensed hotels, restaurants and cafés operating in Iringa Municipality, from which 63 respondents were selected through stratified random sampling based on Slovin's formula. Primary data were collected through structured questionnaires, while secondary information was obtained from relevant literature and official reports. Data were analyzed using SPSS version 20 through descriptive statistics and multiple linear regression. The findings indicate that taxpayer education had a positive and statistically significant influence on tax compliance ($B = 0.564$, $\beta = 0.530$, $p = 0.021$). Tax rates had a negative and statistically significant influence on tax compliance ($B = -0.723$, $\beta = -0.540$, $p < 0.001$), indicating that higher perceived tax burdens were associated with lower compliance. Tax penalties also had a positive and statistically significant influence on tax compliance ($B = 0.621$, $\beta = 0.536$, $p = 0.043$), suggesting that effective enforcement can strengthen compliance behaviour. The regression model was statistically significant ($F = 22.534$, $p < 0.05$) and explained 51.0% of the variation in tax compliance (Adjusted $R^2 = 0.510$). The study concludes that taxpayer education, appropriate tax rates and effective tax penalties are important factors associated with SME tax compliance in the study area. It recommends sustained taxpayer education, fair and affordable tax rates, and consistent, transparent and proportionate enforcement of penalties.

Keywords: Tax compliance, taxpayer education, tax rate, tax penalties.

INTRODUCTION

Taxation constitutes one of the principal mechanisms through which governments mobilize domestic resources to finance public expenditure, provide social services and support economic development. For developing economies, effective domestic revenue mobilization is particularly important because it reduces dependence on external financing and creates fiscal space for public investment. Small and Medium Enterprises (SMEs) occupy an important position within this environment because they contribute to employment creation, household income and commercial activity. The research source reports that SMEs account for more than 90% of businesses in Tanzania and therefore represent an important component of the national economic structure. However, the same source identifies persistent concerns regarding voluntary tax compliance among SMEs, with implications for public revenue collection and service delivery.

Tax compliance may be understood in practical terms as the extent to which taxpayers register where required, maintain appropriate records, declare income honestly, file returns within prescribed periods and discharge tax liabilities in accordance with applicable requirements. Non-compliance, by contrast, may involve delayed filing, underreporting or misreporting of income, failure to maintain appropriate tax documentation, delayed payment or other forms of failure to meet statutory obligations. The conceptual framework developed in the study identifies failure to file returns on time, underreporting or misreporting

business income, and failure to maintain proper tax records as important manifestations of tax compliance among SMEs.

The tax compliance behaviour of SMEs is not determined by a single consideration. It may reflect the interaction of knowledge, perceptions of the tax system, financial capacity, administrative procedures and the perceived consequences of non-compliance. This study concentrates on three factors that were explicitly identified in the research: taxpayer education, tax rates and tax penalties. Taxpayer education is considered important because understanding tax laws, filing procedures, payment requirements and record-keeping obligations can reduce errors and misconceptions. Tax rates matter because they directly affect the financial burden imposed on enterprises and may shape perceptions of fairness and affordability. Tax penalties are relevant because the expected consequences of non-compliance can influence taxpayers' calculations and decisions.

The study is situated in Iringa Municipality, where a substantial number of licensed hotels, restaurants and cafés form part of the SME population. The research identifies 172 licensed enterprises in these categories in the Business Licensing Register of Iringa Municipal Council (2025). The study area was selected because of the concentration of small and micro enterprises and the perceived importance of these businesses to tax collection. The research also notes that evidence specifically addressing these factors in the Iringa context was limited, creating a local empirical motivation for the investigation.

Research Objectives

The general objective of the study was to examine the factors influencing tax compliance among SMEs in Iringa Municipality. The specific objectives were:

- i. To assess the influence of taxpayer education on tax compliance among SMEs in Iringa Municipal Council.
- ii. To determine the influence of tax rates on tax compliance among SMEs in Iringa Municipal Council.
- iii. To assess the influence of tax penalties on tax compliance among SMEs in Iringa Municipal Council.

Research Questions

The study was guided by three corresponding questions:

- i. Does taxpayer education influence tax compliance among SMEs in Iringa Municipality?
- ii. Do tax rates influence tax compliance among SMEs in Iringa Municipality?
- iii. Do tax penalties influence tax compliance among SMEs in Iringa Municipality?

Significance of the Study

The study has practical significance for tax administration, municipal authorities and SME operators. For the Tanzania Revenue Authority and related institutions, evidence concerning education, rates and penalties can assist in designing interventions that combine taxpayer support with effective enforcement. For municipal authorities, the findings may inform local initiatives aimed at strengthening the formalization and sustainability of SMEs. For SME operators, clearer information about obligations and procedures may reduce avoidable compliance errors. Academically, the study contributes context-specific evidence from Iringa Municipality and provides a basis for future investigations of additional determinants of SME tax behaviour.

THEORETICAL FRAMEWORK

Theory of Reasoned Action

The Theory of Reasoned Action (TRA) provides a social-psychological explanation of behavioural decision-making. The research traces the development of the theory to Fishbein and Ajzen and explains that behaviour is closely associated with behavioural intention, while intention is influenced by attitudes and

subjective norms. The theory therefore emphasizes that individuals do not necessarily act solely in response to material incentives; rather, their beliefs about a behaviour and perceptions of social expectations can shape intention and subsequent action.

Applied to taxation, TRA suggests that taxpayers' decisions can be influenced by their attitudes toward paying taxes, their understanding of taxation and the social environment within which tax decisions are made. Taxpayer education is relevant because information and knowledge can shape beliefs about tax obligations, the legitimacy of taxation and the consequences of compliance or non-compliance. Where taxpayers possess clearer knowledge and regard compliance as an appropriate behaviour, their intention to comply may become stronger. The source further notes that knowledge and comprehension can increase awareness of the need to observe tax laws and regulations.

The relevance of TRA to the present study is consequently located primarily in the relationship between taxpayer education and compliance behaviour. Education can influence the cognitive basis upon which taxpayers evaluate taxation, while social expectations may reinforce compliance where registration, record keeping and timely filing are regarded as normal and responsible business practices. The theory therefore complements the economic perspective provided by the Standard Deterrence Model by recognizing that compliance may also reflect attitudes, beliefs and perceived expectations.

Standard Deterrence Model

The Standard Deterrence Model explains tax compliance from an economic and enforcement perspective. Its intellectual foundation is associated with Becker's analysis of unlawful behaviour and was adapted to taxation by Allingham and Sandmo (1972). The central proposition is that taxpayers may compare the expected benefits of evasion with the expected costs arising from detection, penalties and other sanctions. When the expected cost of non-compliance becomes sufficiently high, the incentive to evade may decline.

The model is particularly relevant to the tax-penalty variable in this study. The research source explains that the probability of detection and the severity of punishment are central to deterrence, and that different combinations of punishment severity and probability of imposition can produce comparable expected costs. Allingham and Sandmo's formulation further consider the taxpayer's decision concerning the amount of income to report, with the expected costs of evasion depending on unpaid tax, penalties and the probability of detection.

The model also provides a useful interpretive basis for the tax-rate variable. Where tax obligations are perceived as excessively burdensome, the financial return from underreporting may become more attractive relative to the cost of compliance. Conversely, when tax obligations are perceived as reasonable and enforcement is credible, the balance of incentives may favour compliance. The model therefore supports an examination of the combined influence of tax rates and penalties rather than treating enforcement as an isolated phenomenon.

Theoretical Synthesis

The two theories provide complementary rather than mutually exclusive explanations. TRA emphasizes the psychological and social foundations of intention and behaviour, whereas the Standard Deterrence Model emphasizes expected economic consequences. Together they provide a suitable analytical foundation for examining why SMEs may comply with or depart from tax obligations. Taxpayer education is linked strongly to the information, beliefs and attitudes emphasized by TRA; tax penalties are directly associated with the deterrence mechanism; and tax rates may influence the perceived economic attractiveness of compliance or non-compliance. This theoretical combination is therefore consistent with the study's conceptualization of tax compliance as behaviour shaped by both informational and economic considerations.

EMPIRICAL REVIEW

Taxpayer Education and Tax Compliance

The literature reviewed in the research indicates a generally positive association between taxpayer education and tax compliance. Gitaru (2017), in a study of SMEs in Nairobi Central Business District, employed a case study design and stratified random sampling with 110 respondents. The study examined taxpayer education and its contribution to compliance and concluded that improving taxpayers' understanding is important for strengthening compliance.

Paco (2022) examined tax awareness and compliance among micro and small enterprises in Bacolod City, Philippines. The study used a descriptive-correlational design and data from 400 SME respondents. Its findings indicated that educational attainment and the level of tax awareness significantly predicted the extent of tax compliance and emphasized the need for tax awareness campaigns. These findings reinforce the proposition that information alone is not sufficient as an abstract resource; it becomes relevant when it improves taxpayers' understanding of obligations and enables them to act upon that understanding.

Newman et al. (2018) investigated tax knowledge and property tax collection in Zambia using a cross-sectional study involving 100 SMEs and regression analysis. The study established that SMEs possessed only basic tax knowledge and lacked deeper understanding of tax issues. Such findings are important because limited knowledge may create both inadvertent and deliberate forms of non-compliance, particularly where tax rules, procedures and filing requirements are perceived as difficult.

Mascagni and Santoro (2018) reviewed evidence on taxpayer education and tax compliance in developing countries and concluded that taxpayer education can improve understanding of tax obligations, strengthen trust in tax authorities and increase voluntary compliance. They recommended continuous education programmes tailored to the needs of SMEs. Aiko and Logan (2014), drawing on Afrobarometer survey evidence from more than 30 African countries, similarly found that taxpayers with better understanding of tax laws and government responsibilities were more willing to comply voluntarily. The combined evidence suggests that education can operate through both knowledge acquisition and the development of more constructive perceptions of taxation.

The present study extends this literature to Iringa Municipality. Its focus is not merely on whether SME operators possess formal knowledge, but also on whether education, seminars, workshops and the ability to understand tax procedures are associated with compliance behaviour. This local focus is relevant because the effectiveness of education can depend on the characteristics of taxpayers, the complexity of obligations and the institutional environment in which taxation is administered.

Tax Rates and Tax Compliance

Tax rates influence compliance partly through their effect on the financial burden borne by businesses and partly through taxpayers' perceptions of fairness and affordability. The study source identifies perceived affordability of the current tax rate; the proportion of business income paid as tax and perceptions of fairness as indicators of the tax-rate construct.

Chindengwike (2022) examined the effect of tax rates on taxpayers' voluntary compliance in Tanzania. The study adopted a cross-sectional survey design, used both documentary and survey data, and analyzed the data using SPSS and logistic regression. With a sample of 99 SME taxpayers, the study found a negative effect of tax rates on voluntary compliance and concluded that appropriate tax rates can improve taxpayers' willingness to comply.

The research also cites Kirchler (2007), whose work on tax compliance behaviour indicates that taxpayers are more likely to evade when tax rates are perceived as excessively high or unfair. Conversely, moderate and equitable tax rates can improve voluntary compliance by reducing incentives for evasion. The

implication is that rate design should consider not only the revenue needs of government but also taxpayers' capacity to bear the tax burden.

The relationship between tax rates and compliance is therefore theoretically and empirically complex. A tax rate that is low in nominal terms may nevertheless be perceived as burdensome if profitability is weak or compliance costs are high. Similarly, a higher rate may be accepted where taxpayers perceive public services, administration and enforcement as fair. The present study consequently treats affordability and fairness as important dimensions through which SME operators evaluate the tax rate.

Tax Penalties and Tax Compliance

Tax penalties represent a central enforcement mechanism within the Standard Deterrence Model. The research conceptualizes this variable through awareness of penalties, frequency of penalties imposed and perceived severity of fines or legal consequences.

Yunus (2017) examined tax penalties and compliance among SMEs in Malaysia using quantitative methods, a sample of 105 enterprises and multiple linear regression. The study found that tax penalties significantly affected compliance behaviour and recommended that penalty systems be equitable, proportionate, clearly defined and consistently administered. Ali (2020), using questionnaire data from SMEs in Selangor, similarly found significant influence of penalty rates, knowledge of penalties, education concerning penalties and taxpayers' psychological responses to penalties on compliance.

Obert et al. (2018) investigated tax penalties and compliance behaviour among 180 SMEs in Zimbabwe using structured questionnaires, descriptive statistics and multiple regression. The study found that penalties significantly influenced compliance, particularly where penalties were perceived as certain and severe. It recommended stronger enforcement while emphasizing fairness, transparency and consistency. Maseko (2014) likewise reported a positive relationship between penalties and compliance, while cautioning that penalties alone are insufficient and should be accompanied by taxpayer education and effective administration.

These studies suggest that deterrence is most effective when taxpayers understand the rules, perceive enforcement as credible and consider the penalty system legitimate. Consequently, the present study does not interpret penalties merely as punishment. Rather, penalties are treated as an institutional signal that clarifies the consequences of non-compliance and can encourage timely fulfilment of obligations when applied consistently.

Knowledge Gap

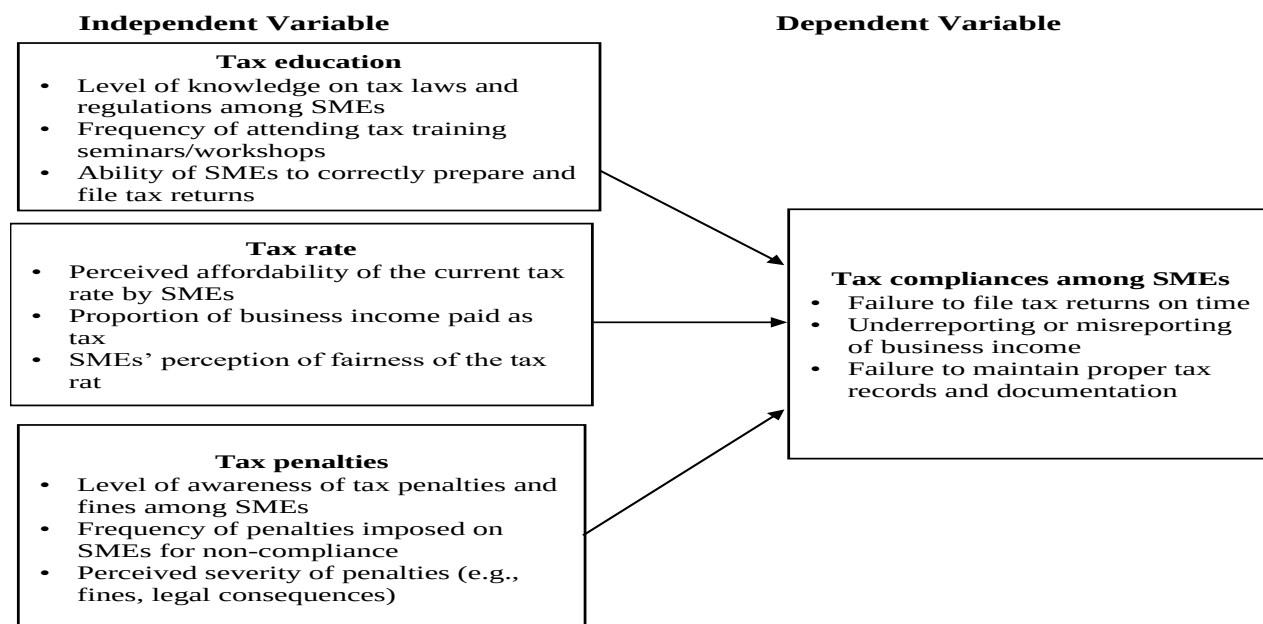
Although prior empirical studies have examined taxpayer education, tax rates and tax penalties in different national and institutional settings, the research source identifies a contextual gap concerning Iringa. The tax system, administrative practices, economic conditions and characteristics of SMEs vary across locations, meaning that evidence generated in another country or region cannot automatically be assumed to apply to Iringa Municipality. The study therefore addresses a geographical and contextual gap by examining these three factors among licensed hotels, restaurants and cafés in Iringa Municipality.

A second aspect of the gap concerns the simultaneous consideration of education, tax rates and penalties within one regression model. Examining the variables together permits an assessment of their relative contribution to variation in the dependent variable and provides a more integrated understanding than considering each factor independently. The study's findings therefore provide evidence on the combined explanatory contribution of the three selected factors within the specified SME context.

CONCEPTUAL FRAMEWORK

A conceptual framework provides an organized representation of the variables and relationships examined in a study. The research source describes the framework as a structure through which observational,

experiential and analytical elements are connected. In the present study, taxpayer education, tax rates and tax penalties constitute the independent variables, while tax compliance among SMEs constitutes the dependent variable.



Source: Researcher construction (2026)

Figure 1. Conceptual relationship among taxpayer education, tax rates, tax penalties and SME compliance behaviour. Source: Researcher construction (2026).

The framework assumes that improvements in taxpayer education can reduce non-compliance by improving understanding of obligations and procedures. It further assumes that fair and affordable tax rates can support compliance, whereas burdensome rates may increase incentives for non-compliance. Finally, effective and credible penalties are expected to discourage non-compliance by increasing the perceived cost of failing to meet tax obligations. The empirical analysis tests these expected relationships using multiple linear regression.

Operationalization of Variables

Taxpayer education was operationalized through indicators concerning knowledge of tax laws and regulations, participation in taxpayer education activities and the ability to prepare and submit tax returns. Tax rate was operationalized through perceptions of affordability, the share of business income devoted to taxation and fairness of the tax rate. Tax penalties were operationalized through awareness, frequency and perceived severity of penalties. The dependent construct was assessed using behavioural indicators including timely filing, honest declaration of income, voluntary registration and maintenance of up-to-date accounting records, as reflected in the research instrument and results.

METHODOLOGY

Study Area

The study was conducted in Iringa Municipal Council. The municipality was selected because it contains a concentration of small and micro enterprises and because the study sought to generate evidence on tax compliance within this local economic setting. The source indicates that the study considered the area relevant to tax collection and that a specific study of the selected factors among SMEs in Iringa was lacking.

Research Approach and Design

A quantitative research approach was employed because the study sought to measure perceptions and examine statistical relationships among clearly defined variables. The research source associates the choice of approach with the research questions and objectives and indicates that the quantitative approach was consistent with the intention to examine the variables empirically.

A cross-sectional research design was adopted. Under this design, information is collected from respondents at a particular point in time, enabling the researcher to describe prevailing conditions and estimate relationships among variables without requiring repeated observations of the same respondents. The source explicitly identifies the cross-sectional design as appropriate because data were collected at one point in time.

Target Population

The target population comprised 172 licensed hotels, restaurants and cafés operating in Iringa Municipality according to the Business Licensing Register of Iringa Municipal Council (2025). The focus on these categories provided a defined population from which the sample could be drawn systematically.

Sampling Frame and Sample Size

The sampling frame consisted of the licensed enterprises forming the target population. The study applied stratified sampling so that hotels, restaurants and cafés were represented according to their respective population sizes. A total sample of 63 respondents was selected, reflecting the financial and time constraints identified in the research. The Slovin formula was $n = N/[1 + N(e^2)]$, where $N = 172$ and $e = 0.10$; thus, $n = 172/[1 + 172(0.10^2)] = 63.24$, rounded to 63 respondents.

Stratum	Population	Allocation calculation	Sample
Hotels	32	$(32 \times 63) / 172$	12
Restaurants	42	$(42 \times 63) / 172$	15
Cafés	98	$(98 \times 63) / 172$	36
Total	172	—	63

Table 1. Sample size distribution. Source: Researcher (2026).

Data Sources and Collection

The study employed both primary and secondary data. Primary data were collected directly from SME operators using structured questionnaires designed around the research objectives. The questionnaire approach facilitated standardized collection of responses across the sampled enterprises and allowed the resulting data to be coded for statistical analysis. Secondary data were obtained from existing documents, previous studies, journals and other relevant sources.

Data Analysis

Quantitative data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS), version 20. Descriptive statistics, including frequencies and percentages, were used to summarize respondents' views and the distribution of compliance indicators. Multiple linear regression using the ordinary least squares estimator was used to examine the statistical relationship between the dependent variable and the three independent variables.

The functional form specified in the research was: $TCS = f(TE, TR, TP)$, where TCS represents tax compliance among SMEs, TE represents taxpayer education, TR represents tax rate and TP represents tax penalties. The linear model was expressed as $TCS = \alpha_0 + \beta_1 TE + \beta_2 TR + \beta_3 TP + U$. The coefficients

represent the expected marginal contribution of the respective independent variables, while U represents the disturbance term.

Validity and Reliability

Validity concerns the extent to which a research instrument measures the construct it is intended to measure. The source discusses validity as a quality attribute of an instrument in terms of accuracy, correctness, meaningfulness and appropriateness. In the study, the questionnaire was developed from the research objectives and the variables contained in the conceptual framework, thereby ensuring alignment between measurement items and the constructs under investigation.

Reliability concerns the consistency of measurement. The study employed standardized questionnaire items and statistical procedures to support dependable measurement. Because the analysis relies on respondent perceptions, maintaining consistency in question wording, response categories and administration procedures was important for reducing measurement error.

Ethical Considerations

The research process recognized the need for responsible treatment of participants and information. Participation was voluntary, respondents' information was treated confidentially and the research was conducted under the relevant institutional and local permissions. The research file contains evidence of permission to conduct the study in Iringa Municipal Council and identifies the research period as May to August 2026. These arrangements supported responsible access to respondents and protected the integrity of the research process.

DATA ANALYSIS AND RESULTS

Overview of Findings

The analysis focused on respondents' perceptions of taxpayer education, tax rates, tax penalties and tax compliance behaviour. The findings were interpreted in relation to the three research objectives and the theoretical propositions developed earlier. Descriptive evidence was first considered to establish the general pattern of compliance behaviour, followed by multiple regression to determine the statistical contribution of the independent variables.

Taxpayer Education

The findings indicate a high level of exposure to taxation knowledge among the sampled SME operators. Out of 63 respondents, 60 (95.1%) reported that they had received education or possessed knowledge concerning taxation, while 3 (4.9%) reported otherwise. This result suggests that most respondents had at least some exposure to tax-related information. The research interprets this exposure as potentially relevant to awareness of registration, filing, payment deadlines, record keeping and penalties.

The broader findings further indicate that taxpayer education was perceived as contributing to compliance. Education is important not simply because it increases awareness, but because it can reduce uncertainty concerning what taxpayers are expected to do and when they are expected to do it. For SMEs with limited administrative capacity, clearer guidance may reduce inadvertent errors and improve the ability to maintain appropriate records and prepare tax returns. The results therefore support the view that taxpayer education is a practical component of compliance management.

Tax Rate

Tax rates were examined through respondents' perceptions of affordability, fairness and the financial burden associated with taxation. The research argues that tax rates can affect business profitability, cash flow and the overall cost of operating an enterprise. When rates are perceived as reasonable and affordable,

compliance may be more attainable; when the burden is perceived as excessive, businesses may experience stronger incentives to delay payments, underreport income or otherwise avoid obligations.

The inferential findings provide empirical support for this argument. The tax-rate coefficient is negative and statistically significant, indicating that increases in the tax-rate measure are associated with decreases in the tax-compliance outcome used in the regression model. The finding is consistent with the evidence cited from Chindengwike (2022) and Kirchler (2007), both of which associate burdensome or perceived-unfair tax rates with weaker voluntary compliance.

Tax Penalties

The descriptive findings indicate that tax penalties constitute a meaningful compliance motivator among respondents. Forty-nine respondents (77.4%) agreed or strongly agreed that tax penalties encourage them to comply with tax obligations in order to avoid financial losses. Seven respondents (12.1%) disagreed or strongly disagreed, while another seven (10.5%) remained neutral. The pattern suggests that the perceived consequences of non-compliance have a substantial role in shaping compliance behaviour.

The result is consistent with the Standard Deterrence Model and with empirical evidence from Malaysia and Zimbabwe. However, deterrence is likely to be most sustainable where enforcement is predictable, transparent and proportionate. The literature reviewed in the research specifically emphasizes that penalty systems should be equitable, clearly defined and consistently administered. Accordingly, the positive coefficient for penalties should not be interpreted as support for indiscriminate punishment; rather, it indicates the importance of credible enforcement within a broader compliance system.

Overall Tax Compliance Behaviour

The descriptive results indicate a relatively high level of tax compliance among the sampled SMEs. The strongest reported compliance indicator was maintenance of up-to-date accounting records, with 54 respondents (85.8%) agreeing or strongly agreeing. Compliance motivated by tax penalties followed at 77.4%, while voluntary taxpayer registration accounted for 74.3%. The findings also indicate that honest income declaration was widely practiced, although a minority of respondents reported disagreement or neutrality.

Compliance indicator	Positive response	Interpretation
Maintenance of up-to-date accounting records	85.8%	Strongest reported compliance indicator
Tax fines and penalties as a compliance motivator	77.4%	Penalties perceived as an important deterrent
Voluntary taxpayer registration	74.3%	Generally positive registration behaviour

Table 2. Selected indicators of SME tax compliance. Source: Field Data (2026).

Multiple Linear Regression Results

Multiple linear regression was used to determine the combined and individual contributions of taxpayer education, tax rate and tax penalties. The analysis is appropriate for estimating the relationship between a single dependent variable and several explanatory variables simultaneously. The resulting model was reported as follows:

$$TCS = 0.519 + 0.564TE - 0.723TR + 0.621TP$$

where TCS represents tax compliance among SMEs, TE represents taxpayer education, TR represents tax rate and TP represents tax penalties. The coefficients indicate the direction and magnitude of the estimated

association between each explanatory variable and the dependent variable, holding the other variables constant.

Variable	B	Std. Beta	t	Sig.
Constant	0.519	—	1.035	0.000
Taxpayer education	0.564	0.530	4.282	0.021*
Tax rate	-0.723	-0.540	-5.875	0.000*
Tax penalties	0.621	0.536	5.166	0.043*

Table 3. Multiple linear regression coefficients. Source: Field Data (2026). * Significant at $p < 0.05$.

The regression coefficients show that taxpayer education had a positive and statistically significant relationship with tax compliance ($B = 0.564$, $\beta = 0.530$, $t = 4.282$, $p = 0.021$). Tax rate had a negative and statistically significant relationship with tax compliance ($B = -0.723$, $\beta = -0.540$, $t = -5.875$, $p < 0.001$), indicating that increases in the tax-rate measure were associated with decreases in the tax-compliance outcome, holding other variables constant. Tax penalties had a positive and statistically significant relationship with tax compliance ($B = 0.621$, $\beta = 0.536$, $t = 5.166$, $p = 0.043$). The positive coefficient indicates that stronger or more effective penalty-related measures were associated with higher compliance. These findings are consistent with the theoretical and empirical evidence reviewed in the study.

Model Fit and Overall Significance

The regression model produced an Adjusted R^2 of 0.510. This indicates that approximately 51.0% of the variation in the tax-compliance outcome was explained by taxpayer education, tax rate and tax penalties, while the remaining 49.0% was attributable to factors outside the specified model. The research identifies possible additional factors such as taxpayers' attitudes, trust in tax authorities, tax administration service quality, business profitability, government accountability, corruption, perceived fairness, digital tax systems and complexity of tax laws.

Model statistic	Reported value	Interpretation
Adjusted R^2	0.510	51.0% of variation explained by the three predictors
F-statistic	22.534	Overall model statistically significant
Significance	$p < 0.05$	Rejects the null model of no joint contribution

Table 4. Overall regression model statistics. Source: Field Data (2026).

The reported F-statistic of 22.534 with $p < 0.05$ indicates that the independent variables jointly provide statistically significant explanatory power. The overall result is important because it demonstrates that the three selected factors should be considered together when examining SME tax compliance in the study area rather than treating each factor as completely independent of the broader compliance environment.

DISCUSSION OF FINDINGS

Taxpayer Education and Compliance

The positive and statistically significant relationship between taxpayer education and compliance suggests that knowledge is an important enabling condition for SME tax behaviour in Iringa Municipality. The finding is compatible with TRA because education can influence beliefs and attitudes concerning taxation, while improved understanding can increase taxpayers' confidence in performing required compliance activities. The result also agrees with Gituru (2017), Paco (2022), Newman et al. (2018), Mascagni and Santoro (2018), and Aiko and Logan (2014), all of which emphasize the importance of knowledge or awareness in tax compliance.

The descriptive evidence strengthens this interpretation. The high proportion of respondents reporting tax knowledge suggests that the sampled SMEs have substantial exposure to tax information. However, exposure should not be equated automatically with comprehensive understanding. A compliance system may still generate errors if taxpayers understand the general purpose of taxation but lack detailed knowledge of filing procedures, deadlines, allowable deductions, documentation or changes in regulations. Continuous and practical education is therefore more likely to be effective than one-time awareness campaigns.

Tax Rate and Compliance

The negative and statistically significant relationship between tax rate and compliance demonstrates that the financial dimensions of taxation matter to SME behaviour. The finding is consistent with the study by Chindengwike (2022), which reported a negative effect of tax rate on voluntary compliance in Tanzania. It also accords with Kirchler's observation that taxpayers may be more likely to evade when tax rates are perceived as excessively high or unfair.

From a policy perspective, the result points to the importance of balancing revenue mobilization with enterprise capacity. SMEs often operate under financial constraints, and a tax burden perceived as disproportionate to business income may reduce willingness to comply. The finding does not imply that lower taxation automatically guarantees compliance. Rather, it indicates that perceptions of affordability and fairness are important elements of the relationship between tax rates and compliance behaviour.

Tax Penalties and Compliance

The positive and significant relationship between tax penalties and compliance is consistent with the Standard Deterrence Model. The result suggests that when SMEs recognize credible consequences for non-compliance, the expected cost of failing to meet tax obligations may increase, encouraging compliance. The finding also agrees with Yunus (2017), Ali (2020), Obert et al. (2018) and Maseko (2014), who reported significant relationships between penalties and tax compliance.

Nevertheless, the literature cautions against interpreting deterrence exclusively in terms of severity. Obert et al. (2018) and Maseko (2014) emphasize fairness, transparency, consistency and the complementary role of education. This is important for the study area because a penalty system that is perceived as unpredictable or unfair may weaken trust and produce resistance rather than voluntary compliance. Effective enforcement should therefore combine credible sanctions with clear information and accessible administrative support.

Integrated Interpretation

Taken together, the findings demonstrate that SME tax compliance is shaped by both enabling and deterrent mechanisms. Taxpayer education represents an enabling mechanism because it equips enterprises with knowledge required for compliance. Tax rates represent an economic condition that can either facilitate or constrain compliance depending on perceived affordability and fairness. Tax penalties represent a deterrent mechanism that increases the expected cost of non-compliance. The significant joint model suggests that policy interventions are likely to be more effective when these mechanisms are addressed simultaneously.

The results also reinforce the value of combining TRA and the Standard Deterrence Model. Education and perceptions of taxation speak to the attitudinal and informational mechanisms emphasized by TRA, whereas penalties and the financial burden associated with tax rates correspond more closely to deterrence and economic decision-making. The integrated theoretical perspective therefore provides a coherent explanation for why both supportive interventions and enforcement measures are relevant to compliance.

CONCLUSION

The study examined factors influencing tax compliance among SMEs in Iringa Municipality, with particular attention to taxpayer education, tax rates and tax penalties. Based on the empirical evidence, all three factors were statistically significant in the reported regression model. Taxpayer education showed a positive

relationship with compliance, tax rate showed a negative relationship, and tax penalties showed a positive relationship. The overall regression model was statistically significant and accounted for 51.0% of the variation in the dependent outcome.

The study concludes that improving tax compliance requires more than enforcement alone. SME operators need adequate knowledge of tax obligations, a tax burden that is perceived as fair and manageable, and an enforcement environment in which penalties are credible and consistently applied. The evidence from Iringa Municipality therefore supports a balanced compliance strategy that combines education, appropriate tax policy and effective administration.

RECOMMENDATIONS

First, the Tanzania Revenue Authority should strengthen continuous taxpayer education for SMEs. Education initiatives should use practical seminars, workshops and awareness campaigns that explain registration, filing, payment deadlines, record keeping and the consequences of non-compliance. The emphasis should be on understandable and actionable guidance rather than information provision alone.

Second, policymakers should continue to review the affordability and perceived fairness of tax rates affecting SMEs. Where rates or related obligations create disproportionate burdens, policy review should consider the financial realities of small enterprises while maintaining the government's revenue objectives. Clear communication concerning the rationale and application of tax rates should accompany policy changes.

Third, tax penalties should be enforced consistently, transparently and proportionately. The objective should be credible deterrence rather than excessive punishment. Taxpayers should understand the circumstances under which penalties apply, the basis for their calculation and the procedures available for addressing genuine errors or disputes.

Fourth, taxpayer education and enforcement should be integrated. The evidence reviewed in the study indicates that penalties are more likely to be effective when taxpayers understand their obligations. Accordingly, compliance campaigns should combine information, reminders, accessible assistance and appropriate enforcement.

Finally, municipal and tax authorities should strengthen mechanisms for monitoring compliance trends among SMEs and use evidence from administrative records and taxpayer feedback to refine interventions. Such monitoring can help identify persistent compliance barriers and distinguish between intentional non-compliance and difficulties arising from limited knowledge or administrative capacity.

Limitations and Areas For Future Research

The study has several limitations that should be considered when interpreting its findings. First, the research was limited geographically and sectorally to selected SMEs in Iringa Municipality, specifically licensed hotels, restaurants and cafés. The results should therefore not be generalized automatically to all SMEs in Tanzania or to enterprises operating under different economic and regulatory conditions.

Second, the study used a sample of 63 respondents. Although the sample was considered adequate for the stated objectives and the research applied an appropriate sampling procedure, a larger sample covering more districts or regions could provide broader evidence and improve generalizability.

Third, the cross-sectional design captures perceptions and relationships at one point in time. It cannot fully establish how compliance behaviour changes following alterations in tax rates, education programmes or enforcement practices. Longitudinal research could therefore provide stronger evidence concerning changes in compliance over time.

Fourth, the study relied on quantitative questionnaire responses. Although this approach facilitated statistical testing, it did not provide detailed qualitative explanations of taxpayers' experiences, motivations and

interpretations of taxation. The research itself recommends that future studies incorporate interviews or focus group discussions to obtain richer explanations of why some SMEs comply while others avoid their obligations.

Fifth, the model included only three independent variables and explained 51% of the variation in the dependent outcome. The unexplained 49% indicates that additional determinants deserve attention. Potential areas include taxpayer attitudes, trust in tax authorities, quality of tax administration services, business profitability, government accountability, corruption, perceived fairness, digital tax systems and the complexity of tax laws.

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