



The Effect of Tax Knowledge on Voluntary Tax Compliance for Micro Enterprises in Tanzania: A Case of Buhongwa Ward in Mwanza Region

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Abstract

This research aimed as to depict the effect of Tax Knowledge on voluntary tax compliance in Tanzania. To attain the objectives of this study descriptive research design was used. Data was collected through questionnaire from a sample of 166 micro-entrepreneurs of Buhongwa ward in Mwanza region. Statistical tools such as standard deviation, mean, correlation and multiple regression analysis were used to analyze data collected from the questionnaire. Results of the study revealed that legal tax knowledge, procedural tax knowledge, and general tax knowledge have a positive and significant association with voluntary tax compliance. The study thus provides the following recommendations based on study's findings: (i) Tanzania Revenue Authority (TRA) should consider employing the best practices for tax knowledge, and (ii) TRA should focus on conducting extensive taxpayer trainings.

Keywords: Legal tax knowledge, Procedural tax knowledge General tax knowledge, and Voluntary Tax Compliance

Introduction

A tax concept that has recently gained a lot of attention in academic research is tax knowledge and how it affects voluntary compliance levels with respect to taxation by taxpayers. Unless voluntary tax compliance is achieved at sufficient levels, the performance of the tax system will be significantly impaired (Sebele-Mpofu & Msipa, 2020). Specifically, for several decades, both developed and developing countries have directed resources towards effective tax knowledge of micro, small, and medium enterprises to boost voluntary tax compliance (Ghani *et al.*, 2020).

According to Economic and Social Research Foundation ESRF (2019), 95% of the businesses in Tanzania are Micro, Small, and Medium Enterprises (MSMEs), and they represent about 35% of the country's GDP, and hence represent a very important sector in the Tanzanian economy. Of those, more than 50% are micro enterprises (ESRF, 2019).

Nonetheless, in Tanzania, voluntary tax compliance among micro-enterprises is still unresolved area. In their study, Chindengwike and Kira (2022) concluded that the level of voluntary tax compliance of micro-businesses in Tanzania is the lowest at 12%. Particularly, Mwanza region is one of the regions with low rate of voluntary tax compliance among micro-enterprises whereby Buhongwa is the leading ward in non-voluntary tax compliance. Statistics from TRA show that

only 36% of micro-enterprises in Buhongwa submit their tax returns voluntarily.

Statement of the problem

Moreover, the rate of tax knowledge among micro-enterprises is among the lowest in Tanzania. Low tax knowledge among micro-enterprises has a number of potentially serious implications. First of all, it can certainly affect voluntary tax compliance. Smaller, less educated, or lower-income taxpayers are more likely to feel confused about complex tax rules, thus potentially failing to comply voluntarily. Despite the rollout of the online tax payment system by TRA in 2013, many challenges regarding timely submission of tax returns as well as payment of taxes due by taxpayers continue to be witnessed.

There is, therefore, a need to establish whether a bridge in the tax knowledge gap would result in enhanced voluntary tax compliance among micro-enterprises. Several studies such as (Malima, 2020; Chindengwike, 2021; Chindengwike and Kira, 2022) have been conducted in Tanzania regarding tax knowledge and voluntary tax compliance. Nonetheless, these studies are based on descriptive statistics whereby, none of these studies has explicitly evaluated and quantified the net effect of taxpayer knowledge on voluntary tax compliance; particularly among the micro taxpayers, who form majority of taxpayers and who are generally ignorant of tax matters.



Specific objective

To achieve this, the study intended to:

1. To examine the effect of general tax knowledge on voluntary tax compliance of micro-enterprises.
2. To examine the effect of legal tax knowledge on voluntary tax compliance of micro-enterprises.
3. To examine the effect of procedural tax knowledge on voluntary tax compliance of micro-enterprises.

Findings from this study are expected to inform the government on the extent to which tax knowledge is crucial in enhancing voluntary tax compliance. Similarly, the findings of this study will also be useful to the Tanzania Revenue Authority for reviewing and designing effective and efficient tax education programs in enhancing voluntary tax compliance by emphasizing on tax education rather than relying heavily on coercive approaches to taxation which are relatively expensive and erodes tax revenue.

Review of Literature

Theoretical Literature Review

This study explores the Fischer *et al.* (1992) model of voluntary tax compliance to explain the relationship between tax knowledge and voluntary tax compliance among micro-enterprises. In theoretical perspective, Fischer *et al.* (1992) model of tax compliance categorizes factors for voluntary tax compliance into four major groups. Taxpayer's knowledge and education being one among variables in demographic category, plays an important role of imparting knowledge to taxpayer's on tax matters. Fischer *et al.* (1992) postulate that greater tax knowledge is directly linked to a likelihood of compliance. They argue that educated taxpayers may be aware of non-compliance opportunities, but their potentially better understanding of the tax system and their higher level of moral development promotes a more favorable taxpayer attitude and therefore greater compliance.

Fischer *et al.* (1992) also suggest that those with a higher tax knowledge level are more likely to have a higher level of moral development and higher level attitudes toward voluntary compliance and thus will tend to comply more. They further argue that one of the measures to increase voluntary compliance is by assuring that taxpayers have a certain level of qualifications, ability, and confidence to exercise their tax responsibility. In summary, greater tax knowledge potentially increases compliance, as educated taxpayers may be more aware of their responsibility as well as the sanctions to be imposed if they were not compliant with tax laws. Several researchers, such as Richardson (2013), Borrego *et al.* (2013), Palil and Mustapha (2011), and Palil (2010), have indicated that the significance of Fischer *et al.*'s (1992) model in explaining the relationship between tax knowledge and voluntary tax compliance behavior of taxpayers in developing countries.

The current research attempts to utilize the Fischer's Model by integrating the effect of tax knowledge as an independent variable on voluntary tax compliance as a dependent variable within the framework of micro-enterprises in Tanzania. The

significance of tax knowledge must not be overlooked in considering voluntary tax compliance behavior of micro-enterprises. Consequently, this research utilizes the Fischer's Model within the framework of tax environment by concentrating mainly on the owners/managers of micro-enterprises.

Empirical Literature Review

General Tax Knowledge and Voluntary Tax Compliance

General tax knowledge is similar to subjective tax knowledge or ordinary people's understanding of taxation. Several studies such as Pertiwi, Iqbal, and Baridwan (2020) have found that different groups of people have different cognitive representations and attitudes toward taxes. People's recognition of taxes as contributing to the public budget is one aspect that is understood to be a distinct representation of taxes (Benard *at al.*, 2018). These tax knowledge programs typically begin with a focus on knowledge areas such as understanding why we pay tax, the relationship between taxes and spending by the government and the benefits of taxation to the community, the fairness of taxation (who pays tax, how we pay tax – including choice of the tax base and rate structure), tax morality, and good financial habits.

According to Chindengwike (2021), general tax knowledge refers to tax awareness which includes understanding the goals of governmental fiscal strategies, the "why" of paying taxes, and the tax morality component, as well as understanding the effect of taxation on one's own finances. Various researches such as Estifanos (2022) indicates that higher levels of general tax knowledge are positively associated with higher voluntary tax compliance. Nonetheless, Kira (2022) concludes that general tax knowledge has no influence on voluntary tax compliance. They argue that in order for general tax knowledge to influence voluntary tax compliance positively, the tax rates and corruption need to be addressed too.

Many studies have found a positive and significant relationship between general tax knowledge and voluntary tax compliance. These include Estifanos (2022) and Chindengwike (2021). Nonetheless, Baridwan (2020) found a negative relationship between general tax knowledge and voluntary tax compliance. Baridwan (2020) argues that although respondents felt the tax system was generally fair, lower levels of tax knowledge and moral development moderated such a positive perception, which both contributed indirectly to a less favorable attitude. In spite of these results, Hanapi (2022) emphasizes that the tax authority should still continue to raise awareness to uninformed and inexperienced micro enterprises on the benefits of paying tax, encourage proper record keeping through taxpayer education and social media campaigns (Newman & Nokhu, 2018).

Based on the discussion above, the following null and alternative hypotheses are formulated:

H_{o1} : General tax knowledge has a negative significant effect on voluntary compliance.

H_{a1} : General tax knowledge has a positive significant effect on voluntary compliance.

Legal tax knowledge and Voluntary Tax Compliance

Most citizens have little understanding of what tax laws mean or why the tax system is structured and administered in the way that it is (Asrinanda, 2018). It can be difficult to become familiar with and understand the legal aspects of taxation. Tax laws are frequently too complex for the average person to comprehend. As a result, taxpayers may avoid even attempting to understand tax terminologies, effectively distancing themselves from the tax system (Estifanos, 2022). The situation becomes particularly difficult because tax laws are frequently changed and are more complex and ambiguous than general laws. According to a recent study, small business owners' tax knowledge was lower than that of business students (Kirchler *et al.*, 2018). Tax professionals also acknowledge that the complexities of taxation make compliance particularly difficult for many small businesses (Wanjiru, 2020).

As a result of the above, it is reasonable to conclude that legal tax knowledge includes a broad understanding of legal terminologies in complex tax legislation. It could also be argued that legal tax knowledge includes the ability to apply specific rules and legislation to accurately determine your tax liability (Estifanos, 2022). Knowledge of society's tax laws through awareness will positively affect the taxpayer's consciousness to pay taxes (Ahmed, 2019). Pertiwi, Iqbal, and Baridwan (2020) found a positive and significant relationship between legal tax knowledge and voluntary compliance. Mascagni and Santoro (2018) argue that there is a relationship between taxpayers' ability to understand and apply tax laws and legislation and their ability to comply. On the other hand, Estifanos (2022) concludes that legal tax knowledge negatively affects voluntary tax compliance.

Based on the discussion above, the following null and alternative hypotheses are formulated:

H_{o2} : Legal tax knowledge has a negative and significant effect on voluntary tax compliance.

H_{a2} : Legal tax knowledge has a positive and significant effect on voluntary tax compliance.

Procedural tax knowledge and Voluntary Tax Compliance

Many countries, particularly those with a self-assessment system, require an appropriate level of knowledge about the procedural aspects of tax laws. Taxpayers must be aware of the processes and responsibilities associated with being tax compliant because they must interact with the tax authorities to submit tax forms on time, produce supporting documents, and make timely tax payments (Nahayo, 2020). According to Yimam (2021), procedural tax knowledge can be distinguished and exist independently of legal tax knowledge. They discovered that taxpayers' willingness to use e-filing is unrelated to their (legal) tax knowledge. Kamau (2020) agrees

that the ability to use E-filing does not always imply that taxpayers have filed their tax returns correctly. Based on this, it is proposed that procedural tax knowledge be expressed in terms of interacting with the tax authority (submitting forms, paying the amount due, dealing with queries), and maintaining the necessary tax records (Bornama & Ramutumbu, 2019). Many countries require the completion of numerous complex forms as well as the keeping of detailed records. Therefore, the "know-how" to submit tax returns electronically, register online, and submit supporting documentation to the tax authority is an element of tax knowledge needed by a taxpayer to be tax compliant (Philemon & Mokaya, 2018).

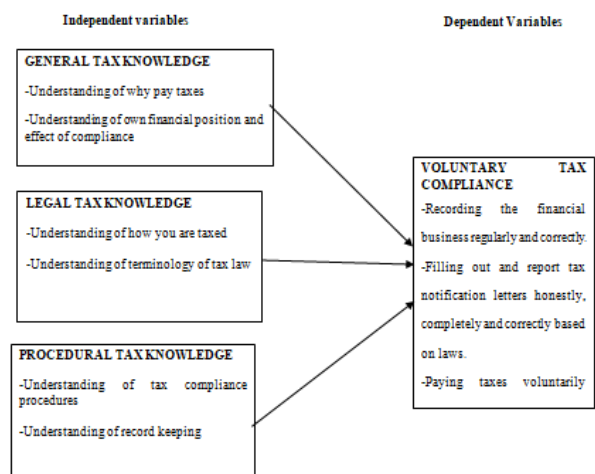
Several studies have analyzed the relationship between procedural tax knowledge and voluntary tax compliance. While Yimam (2021) and Nahayo (2020) found that procedural tax knowledge to have a positive and significant effect on voluntary tax compliance; Phillemon and Mokaya (2018) found a negative relationship between procedural tax knowledge and voluntary tax compliance.

Based on the description above, the null and alternative hypotheses are formulated as follows:

H_{o3} : Procedural tax knowledge has a negative and significant effect on voluntary tax compliance.

H_{a3} : Procedural tax knowledge has a positive and significant effect on voluntary tax compliance.

Figure 1.1: The Conceptual Framework



Methodology Research Design

In order to examine the effect of tax knowledge on voluntary tax compliance, explanatory and descriptive type of research design were employed to describe and analyze the state of affairs as they exist at present. Moreover, this design enabled the researcher to identify and evaluate the causal relationships between the different variables under consideration. After getting the answers from the participants, the researcher described the responses given by respondents.

Population and Sampling

The target population that formed the units of analysis for this study comprised of all 279 owners of micro-enterprises in Buhongwa ward in Nyamagana District (TRA-Mwanza, 2023). Buhongwa ward is selected for this study because it has the highest number of registered micro-enterprises in Mwanza region (Mwanza region profile, 2020). A Yamane's Formula (Yamane, 1967) was used to calculate a representative sample size of 166 respondents.

To select the respondents from the targeted population, this study adopted a simple random technique where sample of 166 respondents from 279 owners of micro-enterprises in Buhongwa ward were selected. Simple random technique was used in selection of the respondents to ensure equal chance of selection of the respondents under the study hence reduces biasness on the selection of the respondents.

Data Collection Procedures

Primary data were collected from the micro enterprises taxpayers through questionnaire as primary instrument of data collection for a survey method. The questionnaires were then distributed to the respondents with the assistance of a research assistant. The researcher made follow-ups and the fully completed questionnaires were picked from the respondents by the research assistant. On the other hand, secondary data were collected through documentary review whereby the researcher reviewed the existing literature to complement the primary data. A range of literature on voluntary tax compliance was reviewed and analyzed.

Validity and Reliability

To verify content validity, the questionnaire was tested through discussions with ten randomly selected owners of micro-enterprises. Their proposed changes were evaluated and considered in adjusting the questionnaire to enhance its validity. In addition, reliability was tested using a duly completed questionnaire by twenty-five (25) randomly selected respondents. These respondents were not included in the final study sample in order to avoid response biasness. The Cronbach's alpha coefficient were run and generated to establish the internal consistency reliability. According to Taber (2018), a Cronbach's Alpha value above 0.7 is considered acceptable.

Data Analysis Procedures

This study employed a quantitative data analysis method. First, descriptive data analysis was performed and frequencies and means were produced. Second, a multiple regression method was used to determine the relationship between tax knowledge (i.e. general tax knowledge, legal tax knowledge, and procedural tax knowledge) and voluntary tax compliance. Particularly, an ordinal logistic regression model was employed which was ideal for this study because the dependent variable is an ordinal variable measured in 5-likert scale. In addition, Spearman's Rank Correlation Coefficient was used to establish relationships between variables.

The regression model that was used in this study is shown

below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:-

Y = Voluntary Tax Compliance

α = intercept or a constant (the value of VT when Independent Variables are 0).

β_1 to β_3 = regression coefficients of the modal (change induced by each coefficient in Y).

X_1 = general tax knowledge

X_2 = legal tax knowledge

X_3 = procedural tax knowledge

ε = the error term

Ethical Considerations

In this study all ethical issues were considered by following all procedures required in data collection and process of obtaining relevant research permission concern will be observed. Before starting to undertake the study a letter of authorization from the University to collect the necessary data required for this study was obtained. Furthermore, in order to get an informed consent from the respondents, the purpose of the study was explained clearly to respondents. They were asked to give their informed consent orally before filling out the questionnaire.

Moreover, they were informed that any information obtained from them was promised to be kept confidential and they were informed that the data would be used only for academic purpose, and in case a need arouse to use it for any other purposes it'd done so only after they'd give their consent.

Results and Discussion

Descriptive statistics

General Tax Knowledge

Table 1 below provides descriptive statistics for the variable General Tax Knowledge (GTK) which was measured using 5 indicators as shown below. Five-point Likert scales were administered where 1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; and 5=Strongly agree. Results relating to the first indicator on statement that owners of micro-enterprises are aware that paying taxes is a civic duty, 5.5% of the respondents strongly agreed, 78% of respondents agreed, 0% of respondents were not certain, 11% of respondents disagreed while 5.5% of respondents strongly disagreed. This shows that majority of micro-entrepreneurs (83.5%) agreed that paying taxes is a civic duty.

In addition, Table 1 provides the response on the statement that owners of micro-enterprises are familiar with Tanzanian tax system whereby 0% of respondents strongly agreed, 5.5% of respondents agreed, 5.5% of respondents were not certain, 44.5% of respondents disagreed, and 44.5% of respondents strongly disagreed. Thus, majority of respondents (i.e. 89%) are not familiar with Tanzanian tax system.

Moreover, Table 1 indicates the findings on the statement that owners of micro-enterprises have a general understanding of types of taxes and duties in Tanzania, where 0% of the respondents strongly agreed, 61.1% of the respondents agreed,

0% of the respondents were neutral, 16.7% of respondents disagreed, while 22.2% of the respondents strongly disagreed. These result imply that the majority of the respondents (i.e. 61.1%) have a general understanding of types of taxes and duties in Tanzania.

Fourthly, indicator 4 related to the statement whether owners of micro-enterprises are aware that everyone who earns income sourced in the country is taxable regardless of whether that person is resident or not. Results in Table 1 show that none of the respondents strongly agreed, 33.3% of the respondent agreed, none of them were neutral, 33.3% of respondents disagreed, while 33.3% of the respondents

strongly disagreed. Therefore, majority of the respondents (i.e. 66.6%) are not aware that everyone who earns income sourced in the country is taxable regardless of whether that person is a resident or not.

Finally, Table 1 provides findings on the statement that micro-entrepreneurs have a general understanding of how tax influence their financial position whereby 27.8% of respondents strongly agreed, 38.9% of respondents agreed, 0% of the respondents were not certain, 5.5% of respondents disagreed, and 27.8% of respondents strongly disagreed. Thus, majority of the respondents (i.e. 66.7%) have a general understanding of how tax influence their financial position.

Table 1: Descriptive Statistics for General Tax Knowledge

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
GTK1	I am aware that paying taxes is a civic duty.	5.5%	11%	0%	78%	5.5%
GTK2	I am familiar with Tanzanian tax system.	44.5%	44.5%	5.5%	5.5%	0%
GTK3	I have a general understanding of types of taxes and duties in Tanzania.	22.2%	16.7%	0%	61.1%	0%
GTK4	As far as I am aware everyone who earns income sourced in the country is taxable regardless of whether that person is resident or not.	33.33%	33.33%	0%	33.33%	0%
GTK5	I have a general understanding of how tax influence my financial position.	27.8%	5.5%	0%	38.9%	27.8%

(Source, Field data, 2023)

Legal Tax Knowledge

Table 2 below provides descriptive statistics for the variable Legal Tax Knowledge (LTK) which was measured using 5 indicators as shown below. Five-point Likert scales were administered where 1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; and 5=Strongly agree. Results relating to the first indicator on statement that owners of micro-enterprises know how much tax they have to pay, 0% of the respondents strongly agreed, 33.4% of respondents agreed, 0% of respondents were not certain, 44.4% of respondents disagreed while 22.2% of respondents strongly disagreed. This shows that majority of micro-entrepreneurs (i.e. 66.6%) do not know how much tax they have to pay.

In addition, Table 2 provides the response on the statement that owners of micro-enterprises understand how taxes are calculated whereby 0% of respondents strongly agreed, 0% of respondents agreed, 5.5% of respondents were not certain, 55.6% of respondents disagreed, and 38.9% of respondents strongly disagreed. Thus, almost all respondents (i.e. 94.5%) do not understand how taxes are calculated.

Moreover, Table 2 indicates the findings on the statement that owners of micro-enterprises are familiar with most tax laws

and guidelines pertaining to the taxation of business income, where 0% of the respondents strongly agreed, 0% of the respondents agreed, 0% of the respondents were neutral, 33.3% of respondents disagreed, while 66.7% of the respondents strongly disagreed. These result imply that all respondents (i.e. 100%) are familiar with most tax laws and guidelines pertaining to the taxation of business income.

Fourthly, indicator 4 related to the statement whether owners of micro-enterprises are capable of interpreting taxation laws when calculating taxes. Results in Table 2 show that none of the respondents strongly agreed, 5.5% of the respondent agreed, none of them were neutral, 33.4% of respondents disagreed, while 61.1% of the respondents strongly disagreed. Therefore, almost all respondents (i.e. 94.5%) are not capable of interpreting taxation laws when calculating taxes.

Finally, Table 2 provides findings on the statement that micro-entrepreneurs are not sure what deductions they can claim as taxpayers in calculating their tax liability whereby 5.5% of respondents strongly agreed, 77.9% of respondents agreed, 0% of the respondents were not certain, 5.5% of respondents disagreed, and 11.1% of respondents strongly disagreed. Thus, majority of the respondents (i.e. 83.4%) are not sure what deductions they can claim as taxpayers in calculating their tax liability.



Table 2: Descriptive Statistics for Legal Tax Knowledge

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
LT1	I know how much tax I have to pay.	22.2%	44.4%	0%	33.4%	0%
LT2	I understand how taxes are calculated.	38.9%	55.6%	5.5%	0%	0%
LT3	I am familiar with most tax laws and guidelines pertaining to the taxation of business income.	66.7%	33.3%	0%	0%	0%
LT4	I am capable of interpreting taxation laws when calculating taxes.	61.1%	33.4%	0%	5.5%	0%
LT5	I am not sure what deductions I can claim as a taxpayer in calculating my tax liability.	11.1%	5.5%	0%	77.9%	5.5%

(Source, Field data, 2023)

Procedural Tax Knowledge

Table 3 below provides descriptive statistics for the variable Procedural Tax Knowledge (PTK) which was measured using 5 indicators as shown below. Five-point Likert scales were administered where 1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; and 5=Strongly agree. Results relating to the first indicator on statement that owners of micro-enterprises know how to announce all business income taxes to the tax authority, none of the respondents strongly agreed, 38.9% of respondents agreed, 0% of respondents were not certain, 38.9% of respondents disagreed while 22.2% of respondents strongly disagreed. This shows that majority of micro-entrepreneurs (i.e. 61.1%) do not know how to announce all business income taxes to the tax authority.

In addition, Table 3 provides the response on the statement that owners of micro-enterprises have no problem completing and submitting the required tax return form (s). Results indicate that 22.2% of respondents strongly agreed, 55.6% of respondents agreed, 11.1% of respondents were not certain, 11.1% of respondents disagreed, and 11.1% of respondents strongly disagreed. Thus, majority of respondents (i.e. 77.8%) have no problem completing and submitting the required tax return form (s).

Moreover, Table 3 indicates the findings on the statement that owners of micro-enterprises know how to keep

records/documents relating to income and expenses for a period that should be declared, where 22.2% of the respondents strongly agreed, 34.4% of the respondents agreed, 0% of the respondents were neutral, 5.5% of respondents disagreed, while 16.7% of the respondents strongly disagreed. These result imply that the majority of the respondents (i.e. 56.6%) know how to keep records/documents relating to income and expenses for a period that should be declared.

Fourthly, indicator 4 related to the statement whether owners of micro-enterprises understand everything that is expected of me in terms of my business profit tax obligation. Results in Table 3 show that 5.5% of the respondents strongly agreed, 16.7% of the respondent agreed, 5.5% of them were neutral, 66.8% of respondents disagreed, while 5.5% of the respondents strongly disagreed. Therefore, majority of the respondents (i.e. 72.3%) do not understand everything that is expected of me in terms of my business profit tax obligation.

Finally, Table 4.9 provides findings on the statement that micro-entrepreneurs are certain about the period and where to pay their tax liability whereby 22.2% of respondents strongly agreed, 66.7% of respondents agreed, 0% of the respondents were not certain, 11.1% of respondents disagreed, and none of them strongly disagreed. Thus, majority of the respondents (i.e. 88.9%) are certain about the period and where to pay their tax liability.

Table 3: Descriptive Statistics for Procedural Tax Knowledge

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PT1	I know how to announce all business income taxes to the tax authority.	22.2%	38.9%	0%	38.9%	0%
PT2	I have no problem completing and submitting the required tax return form (s).	11.1%	11.1%	11.1%	55.6%	22.2%
PT3	I know how to keep records/documents relating to income and expenses for a period that should be declared.	16.7%	5.5%	0%	34.4%	22.2%

PT4	I understand everything that is expected of me in terms of my business profit tax obligation.	5.5%	66.8%	5.5%	16.7%	5.5%
PT5	I am certain about the period and where to pay my tax liability.	0%	11.1%	0%	66.7%	22.2%

(Source, Field data, 2023)

Correlation analysis

Correlation analysis in this study was performed using the Spearman’s rank correlation coefficient. Table 4 below provides results of the Spearman’s rank correlation between variables of the model to test the relationship between tax knowledge and the level of voluntary tax compliance. Results of the correlation analysis which ranges from 0.231 to 0.835 show high, moderate, and low correlation among the study variables. Moreover, results show that all tax knowledge variables (i.e. general tax knowledge, legal tax knowledge, and procedural tax knowledge) have a positive and significant high correlation with the level of voluntary tax compliance.

Table 4: Spearman’s Rank Correlations

Constructs	Voluntary Tax Compliance (VTC)	General Tax Knowledge (GTK)	Legal Tax Knowledge (LTK)	Procedural Tax Knowledge (PTK)
Voluntary Tax Compliance (VTC)	1.000	-	-	-
General Tax Knowledge (GTK)	.821**	1.000	-	-
Legal Tax Knowledge (LTK)	.835**	.208	1.000	-
Procedural Tax Knowledge (PTK)	.612**	.231	.344	1.000

** Significant at 95% confidence level

(Source: Field data, 2023)

Regression Results

Table 5 explains the relationship between dependent variable Voluntary Tax Compliance and independent variable tax knowledge that was computed using an ordinal logistic regression. The null hypotheses were tested for their statistical significance at 5% significance level. From the regression results in Table 5 below, all tax knowledge variables were found to influence Voluntary tax compliance; namely utilization of General Tax knowledge (GTK), $p = 0.000 < 0.05$; Legal Tax knowledge (LTK), $p = .004 < .05$ and Procedural Tax knowledge (PTK), $p = 0.002 < 0.05$. Hence, since the estimated $p \leq .05$, then the null hypothesis is rejected, and conclude that the regression coefficient for three predictor variables are statically different from zero in estimating the level of Voluntary Tax Compliance (VTC).

Table 5: Parameter Estimates to determine the influence of Tax Knowledge on Voluntary Tax Compliance

	B	S.E.	Wald	df	Sig.	95% Confidence Interval	
						Lower	Upper
Constant	5.428	1.791	9.187	1	0.002	1.918	8.938
General Tax Knowledge (GT)	1.988	.525	14.368	1	0.000	0.960	3.016
Legal Tax Knowledge (LT)	.838	.437	3.670	1	0.004	0.019	1.695
Procedural Tax Knowledge (PT)	1.393	.452	9.5131	1	0.002	0.508	2.278

Link function: Logit

(Source: Field data, 2023)

This study examined how tax knowledge affect the level of voluntary tax compliance. Tax knowledge was measured using general tax knowledge, legal tax knowledge, and procedural tax knowledge. The data sets were based on a survey of 166 respondents that was conducted at Buhongwa

ward in Mwanza region through the use of a questionnaire. The study was based on three major hypotheses discussed as follows:

H_{a1}: General Tax Knowledge has a Positive Significant Effect on Voluntary Tax Compliance.

Results of the study finds a positive and significant relationship between general tax knowledge and voluntary tax compliance. The standardized beta value coefficient for general tax knowledge and voluntary tax compliance is 1.988 at 95% significance level which shows a positive and significant relationship exist between them. Since the calculated p value 0.000 is lower than alpha 0.05, then the hypothesis that general tax knowledge has a positive significant effect on voluntary tax compliance is accepted.

This finding supported by previous studies of Estifanos (2022); Chindengwike (2021) and Pertiwi, Iqbal, and Baridwan (2020) which evidenced that tax knowledge could have a positive effect on tax compliance. However, some other studies such as Kira (2022) indicate that education and tax knowledge have no effect on tax compliance. Apart from that, Baridwan (2020) shows that tax knowledge is considered as one of the most influential factors, which determine taxpayers' voluntary compliance or noncompliance behavior. In his study, Hanapi (2022) concluded that tax knowledge as the most important determinant of voluntary compliance. Similar conclusion was made by Newman & Nokhu, (2018). These conclusions are in line with The Fischer Model of Voluntary Tax Compliance.

H_{a2}: Legal tax knowledge has a positive significant effect on voluntary compliance.

Results of the study finds a positive and significant relationship between legal tax knowledge and voluntary tax compliance. The standardized beta value coefficient for legal tax knowledge and voluntary tax compliance is 0.838 at 95% significance level which shows a positive and significant relationship exist between them. Since the calculated p-value 0.004 is lower than alpha 0.05, then the hypothesis that legal tax knowledge has a positive significant effect on voluntary compliance is accepted.

This result is in agreement with Estifanos (2022), who found out that Addis Ababa City business profit taxpayers tax compliance behavior have been highly and significantly affected by tax knowledge. Other studies which have covered the effect of legal tax knowledge on tax compliance include (Asrinanda, 2018; Kirchler *et al.*, 2018) & Wanjiru, 2020). However, findings of this study are in contrast with few studies such as that of Mascagni and Santoro (2018) who have no significant relationship between legal tax knowledge and tax compliance.

H_{a3}: Procedural tax knowledge has a positive significant effect on voluntary compliance.

Results of the study finds a positive and significant relationship between procedural tax knowledge and voluntary tax compliance. The standardized beta value coefficient for procedural tax knowledge and voluntary tax compliance is 1.393 at 95% significance level which shows a positive and significant relationship exist between them. Since the calculated p-value 0.002 is lower than alpha .05, then the hypothesis that *Procedural tax knowledge has a positive significant effect on voluntary compliance* is accepted.

Findings indicate that due to poor procedural tax knowledge on tax payments, the process of paying tax becomes difficult for micro traders obtaining business license is long and bureaucratic which exposes them to discretionary treatment by corrupt officers.

These findings are similar to the results of Yimam (2021) and Nahayo (2020) who also revealed that procedural tax knowledge as important factor towards tax compliance behavior among business income taxpayers. Nonetheless, the findings are in contrast with Phillemon and Mokaya (2018) who found a negative relationship between procedural tax knowledge and voluntary tax compliance.

Conclusions and Recommendations

Conclusions

Objective 1: Tax Knowledge and the Level of Voluntary Tax Compliance

The researcher sought to examine the effect of general tax knowledge on the level of voluntary tax compliance at Buhongwa ward in Mwanza region. Five indicators that were used to measure general tax knowledge on Five-point Likert scales where 1=Strongly disagree; 2=Disagree; 3= Neutral; 4=Agree; and 5=Strongly agree. Findings indicate that a positive and significant relationship exists between general tax knowledge and voluntary tax compliance. This implies that an increase of general tax knowledge to micro traders boosts voluntary tax compliance which will lead to an increase in government revenue.

Objective 2: Tax Knowledge and the Level of Voluntary Tax Compliance

The researcher sought to examine the effect of legal tax knowledge on the level of voluntary tax compliance at Buhongwa ward in Mwanza region. Five indicators that were used to measure general tax knowledge on Five-point Likert scales where 1=Strongly disagree; 2=Disagree; 3= Neutral; 4=Agree; and 5=Strongly agree. Findings indicate that a positive and significant relationship exists between general tax knowledge and voluntary tax compliance. This implies that an increase of legal tax knowledge to micro traders boost voluntary tax compliance which will lead to an increase in government revenue.

Objective 3: Procedural Tax Knowledge and the Level of Voluntary Tax Compliance

The researcher sought to examine the effect of procedural tax knowledge on the level of voluntary tax compliance at Buhongwa ward in Mwanza region. Five indicators that were used to measure general tax knowledge on Five-point Likert scales where 1=Strongly disagree; 2=Disagree; 3= Neutral; 4=Agree; and 5=Strongly agree. Findings indicate that a positive and significant relationship exists between procedural tax knowledge and voluntary tax compliance. This implies that an increase of procedural tax knowledge to micro traders boosts voluntary tax compliance which will lead to an increase in government revenue.

Recommendations

The study results lead to a number of recommendations. First, based on the findings suggesting an effect of tax knowledge on tax compliance, there is the need to adopt a tax education strategy that embraces a multiplicity of knowledge. The various tax education initiatives must focus on many aspects of the tax system. A focus must be given to education on general tax rights and responsibilities, legal tax knowledge, and procedural tax knowledge.

Moreover, micro trade owners must be made aware of the sanctions that can be applied for tax non-compliance. These dimensions of tax knowledge will enhance tax compliance among micro-business owners. It is proposed that the government must intensify campaign on improving business owner's knowledge of their business income.

In addition, the education on taxes must be done using all available mediums including personal visits to business premises, formal tax educational seminars, the use of mass media, and involvement of other government and private organizations. The duty of tax education cannot be the sole responsibility of TRA and therefore the institution must partner with other relevant organizations. The tax authorities must intensify the tax education efforts as this is very helpful in educating tax-payers. To conclude, in order to enhance the level of voluntary tax compliance, the current tax strategy must have education as one of its core pillars as this is a predictor of tax compliance.

Recommendations for Future Research

This study could be replicated in other jurisdictions across the country. The impact of tax education must be assessed after-tax education to measure its impact on tax compliance. Adopting such a research strategy will help assess the effect of tax knowledge on tax compliance. Other tax knowledge issues such as personal relief, rebates, and dividends, and interests could be studied by researchers. Future studies could conduct a comparative analysis of the level of tax compliance before and after-tax education. Future studies could consider other factors affecting tax compliance such as business owner behavior and attitudes, the profitability of business, culture, religion, the enforcement of laws, and the nature of the tax regime. Tax knowledge and tax compliance studies could be replicated in other countries in sub-Saharan Africa.

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