

# The Effect of Taxpayer Education on SMEs' Tax Compliance: The Case of Dar es Salaam City.

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## ABSTRACT

This conference paper assesses the effect of taxpayer education on SMEs' tax compliance: The Case of Dar es Salaam City. The specific objectives of this conference paper were to investigate the effect of e-taxpayer education on SMEs' tax compliance, to evaluate the effects of print media tax education on SMEs' tax compliance, and to analyze the effect of stakeholder education initiatives on SMEs' tax compliance. The study was guided by two theories, the economic deterrent theory and the theory of planned behavior. This study involved the collection of primary data through a questionnaire. The nominal and ordinal data were collected using questionnaires and later subjected to quantitative analysis using Statistical Package for Social Sciences. Data was presented in the form of frequency distribution tables & graphs. The study results showed that indeed; electronic taxpayer education, and stakeholder education initiatives have a significant positive effect on tax compliance among SMEs in Kariakoo tax region-Tanzania, on the other hand, print media taxpayer education has a positive but insignificant effect. The study concludes that education for taxpayers, especially small and medium enterprises (SMEs), and stakeholder education initiatives significantly positively affect their performance in Tanzania. Stakeholders like tax authorities, accounting professionals, and business associations should provide education and support to SMEs through accessible platforms. Collaboration is crucial for consistent education initiatives. Government and tax authorities should offer incentives for high tax compliance and effective tax planning, and simplifying tax regulations can reduce confusion and enable efficient compliance.

**Keywords;** Taxpayers' education, SMEs, Tax compliance, e-taxpayer education.

## INTRODUCTION

Taxes are a crucial source of funding for governments worldwide, but low tax compliance among taxpayers hinders their ability to raise necessary funds for growth (Lymer and Oats, 2009). To improve taxpayer compliance, the Tanzania Revenue Authority (TRA) has implemented technological tools such as Electronic Fiscal Devices (EFDs), Integrated Tax System (ITAX), Tanzania Customs Integrated System (TANCIS), Tanzania Electronic Single Window System, e-filing system, online payment systems, online TIN system, and online auction (Chatama, 2013).

However, despite increasing tax collection, many eligible taxpayers have not been contacted. Small taxpayers often keep their records amateurishly, struggle with record-keeping costs, and face delays in obtaining control numbers for tax payments. The Tanzania Revenue Authority has broadened its administrative system to include small administrative units to reach more clients and work more effectively.

Small and Medium Enterprises (SMEs) in Tanzania are categorized into different sectors and subsectors, including agriculture, manufacturing, tourism, and services. These SMEs account for over 90% of

businesses in Tanzania and contribute to around 35% of GDP. However, they face challenges such as limited access to financing, inadequate infrastructure, and regulatory constraints (Kinyondo *et al.* 2017).

Tax evasion and avoidance are widespread problems in Tanzania, leading to low revenue collection for the government. The informal sector, which accounts for 50% to 60% of GDP, contributes less than 1% to total tax revenue. The government loses up to 3% of GDP each year due to these practices, and SMEs lack awareness regarding tax regulations and compliance requirements (International Finance Corporation (IFC) and the World Bank, 2017).

The World Bank reports that Tanzania's low level of revenue collection is partly due to poor tax administration, including a lack of taxpayer education and awareness programs. Limited interaction between the Tanzania Revenue Authority (TRA) and taxpayers is also a contributing factor (World Bank, 2017).

Overall, tax compliance among Tanzanian Small and Medium Enterprises (SMEs) remains low, largely due to inadequate taxpayer education. Studies show that SMEs lack knowledge of tax laws and regulations, leading to non-compliance (TRA, 2021, Tarimo *et al.*, 2020). Tax evasion and avoidance are major issues in the SME sector, affecting revenue collection (TPSF, 2017). The Tanzania Revenue Authority reported that tax evasion and fraud cases amounted to Tshs. 658 billion in the 2019/2020 financial year. The average tax evasion rate in Tanzania was 39.9% between 2010 and 2015 (TRA, 2020). Taxpayer education initiatives have been introduced to address this issue, but their effect remains unclear (Kisesa *et al.*, 2019). Further researches are needed to assess the effect of taxpayers' education programs on SMEs tax compliance in Tanzania to determine whether these initiatives have been successful in improving tax compliance. Specifically, the study intended to investigate the effect of e-taxpayer education on SMEs tax compliance, to evaluate the effects of print media tax education on SMEs' tax compliance, and to analyze the effect of stakeholder education initiatives on SMEs tax compliance.

## METHODOLOGY

This research was conducted in Dar es Salaam city; particularly at Kariakoo Tax Region. The choice of the city was critical due to the large number of taxpayers found in the Kariakoo tax region. The area has a large number of taxpayers found in a small geographical area which made it both time and cost efficient to collect the data needed.

This study employed a quantitative technique with a survey research strategy. The use of questionnaires and surveys to gather data that is reviewed and tabulated in numbers and enables the data to be described by the use of statistical analysis is referred to as a quantitative approach, according to Kothari (2019). While the design has the potential for bias due to non-response, this happens when people who are invited to participate in the survey do not, leading to a biased sample that is not representative of the population of interest and the limitations that can arise when respondents do not fully understand the survey questions (Dillman, Smyth, & Christian, 2014; Edwards, Roberts, Clarke, Diguiseppi, Wentz, Kwan, Cooper, Felix, & Pratap, 2002). However as noted by Creswell (2013), "a significant strength of survey research is its ability to generate quantitative data that can be subject to statistical analysis, enabling researchers to make generalizations about a population. This design was chosen because it is relatively inexpensive. This is a significant benefit when researching huge populations because data collection can be expensive and time-consuming. Furthermore, according to Denscombe (2014), the high levels of uniformity provided by survey research design ensure that each respondent is asked the same items in the same order, reducing measurement error.

For this study, the total population was 23,542 taxpayers from the Kariakoo Tax Region obtained from the Tanzania Revenue Authority at Kariakoo Tax Region. This study employed a purposive sampling method to pick the most suitable participants from the sample size of 742 taxpayers from the Kariakoo Tax Region.

Purposive sampling enables the selection of only those aspects of the population that best complement the study's goal. Obtaining a sample that is appropriate, sufficient, independent, and homogeneous for the population was the basis for the selection criterion. The sample size for this study was determined using the formula provided by Krejcie and Morgan (1970) for calculating the sample size of a finite population. The study adopted this model, which is an academically acceptable model for determining a representative sample size from a finite population. The sample size of 742 respondents was determined using the Krejcie and Morgan (1970), formula for determining the sample of a finite population is;

$$S = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$$

Where:

$S$  = Required Sample size

$X$  = Z value (e.g. 1.96 for 95% confidence level)

$N$  = Population Size

$P$  = Population proportion (expressed as decimal) (assumed to be 0.5 (50%))

$d$  = Degree of accuracy (5%), expressed as a proportion (.05); It is margin of error

For this investigation, primary data were gathered. Primary data included information on the respondent's gender, age, educational attainment, and the effect of taxpayers' education on tax compliance in Tanzania.

The nominal and ordinal data was collected using questionnaires and latter subjected to quantitative analysis using Statistical Package for Social Sciences. Data was presented in the form of frequency distribution tables & graphs. Furthermore, inferential statistics specifically, logit regression analysis and correlation analysis were employed, the study results showed that indeed; electronic taxpayer education, print media tax payer education, and stakeholder engagement, influences tax compliance among SMEs in Tanzania – Kariakoo tax region. In this case, the binary outcome variable is tax compliance, and the explanatory variable is taxpayers' education.

A logit regression model is as follows:

$$\text{Logit}[p(x)] = \log \left[ \frac{p(x)}{1 - p(x)} \right] = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots \dots \dots \epsilon \dots \dots \dots 1$$

Logistic regression involves fitting an equation of the following form to the data:

$$\text{Logit} (p_t) = \alpha + \beta_1 X_{1,t} + \beta_2 X_{2,t} + \beta_3 X_{3,t} \dots \dots \beta_p X_{p,t} + \epsilon \dots \dots \dots 2$$

Whereby; Logit ( $P_t$ ) = TAC represents Tax compliance (Dependent Variable)

Coded as 0 = no tax compliance, 1 = the existence of tax compliance

$\alpha$  = Intercept

$\beta_1, \beta_2,$  and  $\beta_3$  represent regression coefficients of independent variables

( $X_1$  = Electronic tax education,  $X_2$ = Print media tax education,  $X_3$ = Stakeholders’ engagements) are independent variables or predictor variables

e = Error term,

The coefficients ( $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$ ) were then estimated using the maximum likelihood estimation (MLE) method. The MLE estimates the coefficients that maximize the likelihood of obtaining the observed data, given the specified model.

## ANALYSIS, FINDINGS AND DISCUSSIONS

In analyzing the effect of taxpayer education on SMEs’ tax compliance among Tanzanians SMEs, seven hundred and forty-two (742) questionnaires were issued. Out of the total number of questionnaires issued, 586 questionnaires were filled out by respondents and received by the researcher. The responses represented 79% of the questionnaires issued as shown in table 3.1. This percent was adequate for the researcher to carry out an analysis and draw a raw conclusion that was a good representation of the respondents’ feelings. The response rate is also consistent with Mugenda and Mugenda (1999), who reported that a response above 50% is good enough for research reporting.

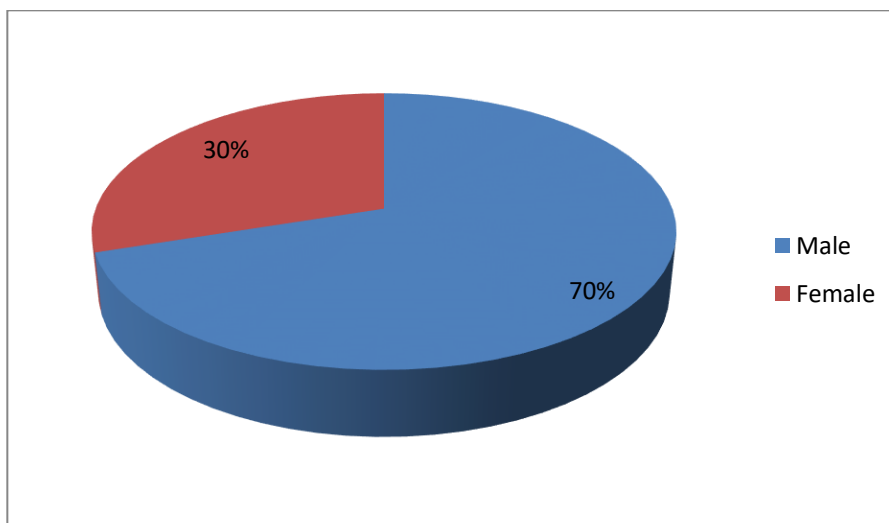
Table 3.1: Response Rate.

Response	Number of Respondents	Percentage (%)
Expected responses	742	100
Received response	586	79

Source: Researcher’s data computation (2023)

Out of 586 respondents, a large number of males—410 (70%)—responded to this study’s questionnaire, as compared to 126 (30%) of males who responded to this study’s questionnaire as shown in figure 3.1. The results demonstrate that the researcher managed to collect data from both male and female respondents. The findings show that the Kariakoo tax region has a higher proportion of male traders than female traders.

Figure 3.1: Gender of Respondents



Source: Researcher’s data computation (2024)

## Results of Regression Analysis

To assess the effect of taxpayer education on SMEs’ tax compliance among Tanzanian SMEs: A Case of Kariakoo Tax Region include the effect of e-taxpayer education on SMEs’ tax compliance, the effects of print media tax education on SMEs’ tax compliance, and the effect of stakeholder education initiatives on SMEs’ tax compliance among Tanzanian SMEs. To determine the effect of each area, the researcher provided the statements to the study respondents to select the correct answer based on what they understood consistent with the study objectives. The findings for each variable were shown by using the mean score and then the meaning of each score was shown, where the mean score ranging from 1 to 2.4 meant that respondents had a negative attitude toward the given statements, whereby mean score ranging from 2.5 to 3.4 presents that respondents had a neutral/undecided attitude towards the given statements, and the mean score with range from 3.5 up to 5.0 presents that the respondents had a positive attitude with given statements in line with (McLeod, 2019). The aggregate mean was then calculated and plugged into the logit regression model to determine the relationship between the variables. The coefficients ( $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$ ) were then estimated using the Logistic regression method. The findings are shown in table 3.2 below. The expected change in probabilities for a unit increase in the predictor is expressed as “Exp(B),” or the odds ratio. The exponential value of B is denoted by the letter “exp.” Increasing values of the variable signify decreased probability of the event occurring when Exp (B) is less than 1. Increasing values of the variable signify increasing chances of the event occurring when Exp (B) is larger than 1.

Table 3.2: Logit Regression Results

Model		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Stakeholder-led taxpayers’ education initiatives	.317	.119	6.211	1	.005**	1.941
	Print Media taxpayers’ education	.129	.112	4.213	1	.071*	1.862
	E-taxpayers’ education	.319	.148	8.951	1	.005	2.727
	(Constant)	3.047	0.382	63.773	1	.000	21.054
a. Variable(s) entered on step 1: Stakeholder – led taxpayers’ education initiatives, Print Media taxpayers’ education, E-taxpayers’ education.							

Source: Researcher’s data computation (2024)

### The effect of print media education on SMEs tax compliance in The case of Kariakoo tax region.

Table 4.6’s result reveals that the estimated coefficient for e-taxpayer education is 0.319 unit points, which means that, on average, ceteris paribus, the e-taxpayer education has a statistically significant positive effect on SME tax compliance in Tanzania – The case of Kariakoo tax region of 0.319 unit-points at the 5% significant level. The finding means that when SME owners or employees have a higher level of digital literacy and understanding of e-taxation processes, they can effectively utilize technology and digital tools to manage their tax compliance, streamline operations, and make informed financial decisions. This was found in the study conducted by Alawodi, O. W & Ojeka, S. 2012. This can lead to improved performance, increased efficiency, and better financial management.

### The effect of print media education on SMEs tax compliance in The case of Kariakoo tax region.

The finding in Table 4.6 shows that the coefficients estimate of the print media education on SMEs tax compliance in Tanzania-The case of Kariakoo tax region is 0.129 unit-points; meaning the print media



education on financial inclusion has 0.129 unit-points statistically insignificant positive effect on SMEs tax compliance in Tanzania-The case of Kariakoo tax region on average ceteris paribus. The finding indicates that the impact of print media education on SME performance may vary. While print media can be a source of information and knowledge for SMEs, its direct effect on performance may not be as significant as other forms of education. However, the availability and accessibility of relevant information through print media can help SMEs make more informed decisions, improve marketing strategies, and enhance customer engagement.

### **The effect of stakeholder education initiatives on SMEs tax compliance in The case of Kariakoo tax region.**

The finding in Table 4.6 shows that the coefficients estimate of stakeholder education initiatives on SMEs tax compliance in Tanzania-The case of the Kariakoo tax region is 0.317 unit-points; meaning the mobile money levies has 0.317 unit-points statistically significant at 10% level positive effect on SMEs tax compliance in Tanzania-The case of Kariakoo tax region on average ceteris paribus.

The finding implies that shareholders' education initiatives can play a vital role in SMEs' performance. When shareholders are educated about their rights and responsibilities, financial management, and corporate governance practices, they can contribute effectively to the strategic decision-making process. Educated shareholders can provide valuable insights, support SMEs in accessing resources, and foster good governance practices, leading to improved performance and long-term sustainability. The finding reveal the same result with (Castro, L., & Scartascini, C. 2015).

Overall, these study findings affirmed that taxpayers will readily accept any new system introduced if they have ample knowledge to understand the system. Thus, education programs organized by the tax authority or other public education institutions are needed to enhance taxpayers' ability to understand self-assessment systems and to increase their confidence in fulfilling their responsibilities as taxpayers. Greater education is directly linked to a likelihood of compliance.

## **CONCLUSIONS OF THE STUDY**

This study sought to assess the effect of taxpayers' education on SME's tax compliance in the Tanzania-Kariakoo tax region: the independent variables were e-taxpayer education, Stakeholder's education initiatives and print media taxpayers' education. Based on the research findings, it can be concluded that education for taxpayers, especially small and medium enterprises (SMEs), has a significant positive effect on their performance in Tanzania. This implies that the more educated SMEs are about tax regulations, compliance, and efficient tax planning, the better their overall performance tends to be.

Stakeholder education initiatives also play a crucial role in improving SMEs' performance. When stakeholders, such as tax authorities, business associations, and accounting professionals, provide education and support to SMEs regarding tax-related matters, it leads to enhanced performance in terms of compliance, profitability, and growth.

## **RECOMMENDATIONS AND POLICY IMPLICATIONS**

“Governments need money. Modern governments need lots of money.” (Steinmo 1993:1) Collecting this money is a tricky problem because incentives for tax evasion are pervasive. Governments have tried various approaches to tackling this problem. The study recommends the following policies to tackle the problem: Positive rewards; – material rewards usually come in the appearance of lotteries. For instance, Taiwan has operated a Receipt-based tax lottery to increase sales tax (VAT) compliance since the 1950s. China

introduced a VAT lottery in the 1990s (Wan, 2010). Some European countries followed suit including Malta, Slovakia, Portugal, and Romania (Fookan et al., 2014). Local authorities in Peru and Indonesia raffled off bicycles, cars, and TV sets to incentivize payments of property taxes and motor vehicle taxes. Martin and Dolan (2010) suggested a lottery scheme to increase timely submissions of income tax declarations in the US. The researcher believes using this approach will make the SMEs tax-compliant in Tanzania.

This paper recommends that the government and tax authorities in Tanzania should heavily invest in taxpayer education programs, particularly focusing on SMEs. These programs should aim to improve SMEs' understanding of tax regulations, help them navigate the tax system, and foster a culture of compliance and efficient tax planning.

Based on the findings of this paper the researchers recommend that Stakeholders involved in SMEs' taxation, such as tax authorities, accounting professionals, and business associations, should continue their efforts to provide education and support to SMEs. This can be achieved through workshops, training sessions, webinars, and other platforms that are easily accessible to SMEs. Stakeholders should collaborate and coordinate their efforts to ensure comprehensive and consistent education initiatives for SMEs.

Based on the findings of this paper the researchers recommend that government and tax authorities should consider providing incentives or rewards to SMEs that demonstrate high levels of tax compliance and engage in effective tax planning. This can encourage SMEs to prioritize education and compliance, as it directly translates into financial benefits for their business.

Based on the findings of this paper the researchers recommend that tax authorities should also focus on simplifying tax regulations and procedures, making them more transparent and easily understandable for SMEs. Clear and simple tax regulations can reduce confusion and enable SMEs to comply efficiently and effectively.

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