

Exploring the Influence of Tax Technology Reforms on Compliance Rates among Tanzanian SMEs

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Publication Date: 2025/01/29

Abstract: Tax reforms play a crucial role in shaping Tanzania's economic landscape, particularly for small and medium enterprises (SMEs), which are significant contributors to employment and GDP growth. Despite ongoing reforms, concerns remain about their impact on SMEs, necessitating further investigation. This study explored the effects of technological tax reforms on tax compliance among SMEs in Tanzania, guided by the economic deterrence theory. Adopting a positivist philosophy and a descriptive survey research design, the study collected quantitative data using structured questionnaires administered to 169 SME owners in Kinondoni, Dar es Salaam, selected through convenience sampling. Multiple regression analysis revealed a statistically significant positive correlation between technological tax reforms and tax compliance. However, the reforms accounted for only 38% of the variation in tax compliance, indicating a moderate contribution. To enhance tax compliance as envisioned, the Government of Tanzania, through the Tanzania Revenue Authority (TRA), should invest more in ICT infrastructure, including computer devices, online systems, and internet access. Such investments would facilitate taxpayer education, improve knowledge and skills related to e-filing systems, e-registration, Electronic Fiscal Devices (EFDs), and the Integrated Tax Management System (ITMS).

Keywords: *Technological Tax Reforms, Taxpayers, Tax Compliance, E-Filing System, E-Registration, Electronic Fiscal Devices and Intergrated Tax Management.*

How to Cite: Hamadi Ahmadi Mkasinyagaize (2025). Exploring the Influence of Tax Technology Reforms on Compliance Rates among Tanzanian SMEs. *International Journal of Innovative Science and Research Technology*, 10(1), 1129-1134. <https://doi.org/10.5281/zenodo.14759695>

I. INTRODUCTION

SMEs are important to the global economy, contributing significantly to employment and GDP. For instance, in the European Union, SMEs account for 99% of all businesses and 66% of total employment (European Commission, 2021). Similarly, in developing countries, SMEs play an important role in economic development and poverty reduction. SMEs often face significant challenges in complying with tax regulations due to factors such as limited resources, complex tax laws, and lack of knowledge or expertise. This results in a high incidence of tax evasion and avoidance among this group. The OECD highlights that smaller businesses are less likely to have sophisticated accounting systems and are more prone to underreport income (OECD, 2019).

Tax compliance has long been a critical issue for governments worldwide, as it directly impacts their ability to generate revenue necessary for public services and

infrastructure. Across the globe, tax systems have undergone various reforms aimed at improving compliance, simplifying tax structures, and closing loopholes. Despite these efforts, non-compliance remains a significant problem. According to the IMF, the global tax gap—the difference between taxes owed and taxes paid—is substantial, with developing countries facing higher gaps relative to their GDPs compared to developed nations (IMF, 2019).

In Sub-Saharan Africa, tax compliance is a particularly pressing issue due to the region's economic structure and governance challenges. Many countries in this region have a large informal sector, which complicates tax administration and compliance efforts. According to AfDB, the informal sector accounts for about 55% of Sub-Saharan Africa's GDP and employs around 80% of the labor force (AfDB, 2019). This high level of informality poses significant challenges for tax authorities in capturing tax revenue from a large segment of the economy.

Reforms across the region have focused on expanding the tax base, improving tax administration, and enhancing taxpayer services. The introduction of VAT systems, modernization of tax administrations, and capacity building are some of the measures implemented. Despite these efforts, the tax-to-GDP ratio in Sub-Saharan Africa remains low, averaging about 15%, compared to the OECD average of 34%. Corruption, lack of trust in government, and weak enforcement mechanisms further exacerbate the problem of tax compliance.

In Tanzania, like many other African countries, tax compliance among small and medium-sized enterprises (SMEs) is a sensitive problem. SMEs play a important role in the Tanzanian economy, contributing significantly to employment and GDP. However, tax compliance within this sector is notoriously low.

The Tanzanian Revenue Authority (TRA) has undertaken numerous reforms to address this issue, including expansion of the tax base, review of tax incentives, introduction of the VAT –EFD machines, reforms in personal income tax, simplification of tax procedures, enhanced tax administration and enforcement, introduction of the EGMS, reforms in corporate income tax, and introduction of SEZs and the taxpayer portal (TRA, 2020)

Despite these reforms, challenges persist. The complexity of tax regulations, high compliance costs, and limited awareness among taxpayers are significant barriers. Furthermore, the informal nature of many SMEs makes it difficult for the TRA to enforce compliance. A study by the International Growth Centre (IGC) found that simplifying the tax regime and improving taxpayer services could enhance compliance among SMEs in Tanzania (IGC,2020) hence this paper seeks to investigate how these technological tax reforms affect tax compliance among small and medium enterprises in Tanzania.

II. THEORY UNDERPINS THE PAPER

The economic deterrence theory, introduced by Becker in 1974, posits that taxpayers' decisions to comply or not comply with tax regulations are influenced by policy elements. The deterrence theory is based on addressing the issues related to tax compliance. According to Ortega and Sanguinetti (2013), the theory aims to identify an enforcement mechanism that would most effectively resonate with the taxpayer's sense of tax morality.

The theorists assert that the mind-set of tax payers while evading tax is the concept of maximizing the expected usefulness of the tax evasion gamble. Alm and El-Ganainy (2013) states that the deterrence theory is founded on weighting the benefits of successfully evading tax in comparison with the risk of sanctions if caught. When a taxpayer engages in tax evasion, they deliberately and knowingly use illegal means to avoid following tax laws. They might accomplish this by not reporting earned income, creating fake tax deductions, or using other illegal methods

to reduce or eliminate their tax obligations (Alstadsæter, et al., 2018).

According to Pratt, Cullen, Blevins, Daigle and Madensen (2006), the deterrence theories generally predict compliance patterns based solely on the ability to pay approach. The government revenue and expenditures are treated separately and taxes are based on taxpayer's ability to pay. Deterrence can be achieved through a number of approaches which could be punitive or persuasive. The theorists present a case for tax reforms as way of enhancing compliance. To yield high compliance, the reforms must be seen by tax payers to be enhancing the equity and fairness of the taxation system (Knoll, et al., 2017). It should as well reduce and control the costs of compliance while increasing the cost associated with noncompliance. The deterrence theory therefore supports a case for technological reforms as a way of improving the state of tax compliance.

III. EMPIRICAL REVIEW

Mukiri, (2020) studied the effect of technological tax compliance on the voluntary tax compliance among small and medium enterprises in Nairobi County, Kenya. The inferential analysis showed that technological tax reforms had a significant positive effect on the voluntary tax compliance among SMEs in Nairobi County, Kenya both in isolation and also when assessed together with other tax reforms in a multivariate regression analysis.

Musa and Ibrahim (2016) studied technological tax reforms and small corporate tax compliance behavior In Nigeria. On technological reforms, the study assess the indirect effects of tax compliance costs on the small corporate tax compliance behavior. Results show that technological tax reforms have a positive effect on small corporate tax compliance. In context, gaps are clear on need to have the study done locally to reflect how technological tax reforms have a positive effect on small corporate tax compliance. In context, gaps are clear on need to have the study done locally.

Masunga, (2020) assessed the quality of the e-tax system and its effect on tax compliance behavior. Behavioral intention on the use of the e-tax system was a strong positive effect on tax compliance behavior. The strong positive effect of BI and USERSAT on tax compliance behavior are influenced by service quality and information quality that means the e-tax system assist taxpayers in curbing the problem of high cost of tax payment, time used by taxpayers to file tax documents and pay taxes.

IV. METHODOLOGY

This study was carried out at Kinondoni Tax region in Dar es Salaam region. Since, the type of the study is a quantitative; the research philosophies guiding this study were positivism in relation to research objectives and research questions. This research used the descriptive survey research design. The justification for adoption of this design

was due to the fact that the current study aims to determine conditions as they are and explain relations as they existed regarding tax reforms and tax compliance among Logistics firms under Logistics firms under SMEs in Kinondoni, Tanzania. The target population comprised of 300 SMEs spread across different industries in Kinondoni municipal. The target respondents were the owners or managers of the SMEs. The researcher used Yamane's formula to get 169 sample size. The study used structured questionnaires to gather quantitative data from 169 owners of SMEs based in Kinondoni Dar es Salaam who were convenience selected. Data analysis was done using descriptive and inferential analysis. Means and standard deviations was the key descriptive statistics. On the other hand, the multiple regression analysis made up the inferential analysis methods. The inferential statistics were considered

paramount in fulfilling the study objectives by demonstrating objectively, the effect and relationship between the independent variable (technological tax reforms) and the dependent variable (tax compliance).

V. FINDINGS AND DISCUSSION

➤ *Influence of Technological Tax Reforms on Tax Compliance*

This was the second objective of the study. Respondents were provided with six statements which measure technological tax reforms in relation to tax compliance in term of Technological modification, Training and Empowerment. The level of agreement or disagreement were presented in table 4.8

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
The SME is well aware of the numerous technology-based innovations introduced by the revenue authority to streamline the processes of registration, filing, and payment of tax obligations.	161	1.00	5.00	2.4172	.88761
The implementation of advanced tax technology infrastructure by the revenue authority has significantly reduced the cost of compliance for SMEs.	161	1.00	5.00	2.9018	.86220
The revenue authority regularly conducts training sessions for SMEs to enhance their understanding and use of technology in meeting their tax obligations effectively.	161	1.00	5.00	2.6564	.85621
Technology-driven reforms have greatly improved the efficiency of tax compliance processes for SMEs.	161	1.00	5.00	2.7914	.93263
The tax authority has established satellite technical centers to provide SMEs with technological support and assistance for ensuring seamless tax compliance.	161	1.00	5.00	2.7914	.78923
Overall, technological tax reforms have had a positive and impactful effect on the tax compliance of SMEs.	161	1.00	5.00	3.1350	.94618
Valid N (listwise)	161				

Source: Field data, 2024

The findings revealed that all six statements scored the mean less than 3.4 an indication that, majority of respondents have either disagreed or have neutral response concern the technological tax reforms. Standard deviation was less than 2 which implied that all respondents had similar view. This implied that technological tax reforms did not influence the level of tax compliance among Logistics firms under Logistics firms under SMEs in Kinondoni Municipal.

➤ *Respondents' Views on Tax Compliance*

Respondents were asked to state their level of agreement or disagreement on tax compliance in terms of Tax Registration, Timely Payment of Tax Due and Timely payment. The results are presented in table 4.10

Table 2: Descriptive Statistics on tax compliance					
	N	Minimum	Maximum	Mean	Std. Deviation
Usually, I fill all tax returns using e-filing system completely	161	1.00	5.00	3.3190	1.14237
Usually, I fill all tax returns using e-filing system clearly	161	1.00	5.00	3.2945	1.13818
Usually, I submit all tax returns using e-filing system timely	161	1.00	5.00	3.2945	1.22188
Using the e-filing system has eliminated the follow-up actions on payment of taxes which were made by TRA in my business premises.	161	1.00	5.00	3.2577	1.23523
E-tax registration help SMEs to comply with tax	161	1.00	5.00	3.4294	1.21701
All tax reforms increase tax compliance among SMEs	161	1.00	5.00	3.3190	1.19518
Valid N (listwise)	161				

Source: Field data, 2024

The findings revealed that all six statements scored the mean less than 3.4 an indication that, majority of respondents have either disagreed or have neutral response concern the tax compliance. Standard deviation was less than 2 which implied that all respondents had similar view. This implied that the level of tax compliance is very low.

➤ *Multiple Regression Analysis*

In assessing the effect of technological tax reforms on tax compliance among Logistics firms under Logistics firms under SMEs in Kinondoni, the multiple regression analysis was conducted. The dependent variable (tax compliance) was assessed by independent variable (E-registration, E-Filing and Integrated Tax Management System). This was done after meeting the regression assumptions of significance level of 0.05 with 95% confidence interval.

Table 3: Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.510 ^a	.260	.246	5.99827

a. Predictors: (Constant), ER, RF, ITMS

Source: Field data, 2024

The predictor's variables (E-registration, E-Filing and Integrated Tax Management System) have accounted 0.260 of adjusted R square which implied that 26.0% of tax compliance in Kinondoni was explained by tax reforms. The remaining percentage may be explained by other factors which might not be covered by this study.

➤ *Statistically Significant of the Results*

The ANOVA test was presented to determine the fitness of the model with 5% significant level.

Table 4: ANOVA^a						
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2010.092	3	670.031	18.623	.000 ^b
	Residual	5720.705	159	35.979		
	Total	7730.798	162			

a. Dependent Variable: TTC

b. Predictors: (Constant), TPR, TAR, TTR

Source: Field data, 2024

The results show that the variables investigated had the p value of 0.00 which implied that the model was significant. With these results it is sufficient and fair to make conclusion as the data are suitable with less than 0.05 p value.

➤ Coefficient Analysis

This subsection compares the contribution of each independent variable which show whether each variable is making a significant unique contribution to the equation.

The regression equation was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where; **Y= Tax Compliance**

β_0 = Intercept

X_1 = E-registration

X_2 = E-Filing

X_3 = Integrated Tax Management System

Table 5: Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.012	2.581		.392	.696
	ER	.301	.167	.167	1.804	.073
	EF	.380	.182	.206	2.090	.038
	ITMS	.412	.134	.243	3.064	.003

a. Dependent Variable: TC

Source: Field data, 2024

The table revealed that when the variables are held to constant zero; Integrated Tax Management System and Tax Compliance will be at a constant value of 1.012 as shown in table 5.

The study further revealed that E-Registration tax reforms have positive influence on tax compliance ($\beta=0.301$). Under the same variable E-Registration had the p value of 0.073 greater than 0.05 which implied that the influence administrative tax reforms on tax compliance is insignificant.

Moreover, it was found that E- Filing reforms have positive influence on tax compliance ($\beta=0.380$). It also found that, E- Filing reforms had the p value of 0.038 less than 0.05 an implication that the relationship was significant.

Lastly, Integrated Tax Management System found to have positive influence on tax compliance with the beta value of 0.412. The relationship was significant as the p value for the influence of Integrated Tax Management System was 0.03 less than prescribed value of 0.05

VI. CONCLUSION

The study concluded that, E-Registration reforms have positive insignificant influence on tax compliance ($\beta=0.301$, $p=0.073$). Moreover, it was found that E- Filing reforms have positive and significant influence on tax compliance ($\beta=0.380$, $p=0.038$). Lastly, Integrated Tax Management System reforms found to have positive and significant influence on tax compliance ($\beta=0.412$, $p=0.03$). Therefore, the study conclude that tax reforms influence tax compliance

among Logistics firms under Logistics firms under SMEs in Kinondoni Municipal.

RECOMMENDATIONS

Given the study's findings that technological tax reforms positively and significantly influence tax compliance, several recommendations are proposed. First, the revenue authority should prioritize continuous investment in ICT infrastructure, including modern computer devices, reliable online systems, and widespread internet access. Such investments will equip taxpayers with the education, knowledge, and skills necessary for using e-filing, e-registration, and the Integrated Tax Management System effectively. Second, addressing user challenges through enhanced ICT infrastructure will provide long-term solutions to issues individual taxpayers face, ensuring smoother and more efficient tax compliance processes. Third, efforts should focus on building positive perceptions among taxpayers regarding the usefulness of technological reforms. Clear communication and effective training programs can highlight the benefits of these systems, fostering greater acceptance. Lastly, simplifying technological systems with user-friendly interfaces will enhance ease of use, encouraging broader adoption. By implementing these measures, the revenue authority can improve tax compliance rates while significantly enhancing the taxpayer experience.

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