

# Tax Compliance among SMEs: An Empirical Analysis of Internal and External Determinants in Shinyanga Municipality, Tanzania

Omary Magasha\*, Immaculate Onesmo Gillo, Sadick Alex

Department of Rural Development and Regional Planning, Institute of Rural Development Planning, Dodoma, Tanzania  
Email: \*omary.magasha@irdp.ac.tz

**How to cite this paper:** Magasha, O., Gillo, I. O., & Alex, S. (2025). Tax Compliance among SMEs: An Empirical Analysis of Internal and External Determinants in Shinyanga Municipality, Tanzania. *Open Journal of Business and Management*, 13, 924-945.  
<https://doi.org/10.4236/ojbm.2025.132050>

**Received:** January 8, 2025

**Accepted:** March 8, 2025

**Published:** March 11, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc.  
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).  
<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

This study explores the internal and external determinants of tax compliance among Small and Medium Enterprises (SMEs) in Shinyanga municipality. The study adopted cross-sectional research design, whereby both primary and secondary data were collected. Interviews and documentary reviews methods with questionnaires and interview guide as respective tools were used. A sample of 201 respondents involved in the study were picked through simple random and purposive sampling techniques. Data were analyzed using Ordinary Least Square (OLS), Factor analysis and Principal Component Analysis methods. Results indicated that there is a moderate level of tax compliance among SMEs with overall mean score of 3.1. OLS results indicated internal factors being tax knowledge ( $p = 0.003$ ), size of the business ( $p = 0.033$ ) and record keeping practices ( $p = 0.006$ ) influences the increase in tax compliance. Results on external factors show provision of tax incentives ( $p = 0.011$ ), compliance audits ( $p = 0.034$ ) and addressing corruption ( $p = 0.036$ ). Factor analysis results indicate the internal factors explain 28.49%, external factors by 24.06% and external environment explain the variances by 13.07%. The study concludes that there is moderate level of tax compliance among SMEs being influenced internally by tax knowledge, business size and record keeping, and externally influenced by tax incentive, compliance audits and rate of corruption. It is recommended that education should be enhanced on tax payment compliance, developing easier and friendly digital tools for tax collection and record keeping for SMEs, provision of tax incentives and controlling corruption among its staff on tax collection.

## Keywords

Internal and External Factors, Tax Compliance, SMEs, Tax Incentives, Shinyanga Municipality

## 1. Introduction

Taxation is a fundamental mechanism for financing government operations, defined as a compulsory payment imposed on income, expenditure, or assets without any specific return to the taxpayer (Edame & Okoi, 2014). Tax compliance, which reflects taxpayers' willingness to adhere to tax laws, plays a critical role in economic stability. It ensures governments can fund essential public services such as education, healthcare, infrastructure, and social development programs, reducing reliance on external donors and their often-stringent conditions (Cheng et al., 2024). However, tax compliance is fraught with challenges as taxpayers aim to minimize costs and maximize profits, while governments strive to maximize revenue. Globally, tax compliance dynamics differ significantly across regions and systems. In the European Union, tax non-compliance remains a pressing issue, driven by factors such as insufficient trust in tax authorities, weak enforcement measures, and varying social norms. Studies highlight those countries like Latvia, Italy, and Poland rank among the highest in non-compliance due to systemic inefficiencies and taxpayer resistance (Christie & Holzner, 2016). Research has further shown that high levels of trust in tax authorities, combined with robust enforcement mechanisms, significantly improve compliance, as evidenced in countries like the United Kingdom and Austria (Schwarzenberger, 2011; Kogler et al., 2013).

In the United States, tax compliance heavily relies on intermediary reporting by entities such as employers, financial institutions, and casinos. Reporting mechanisms, including W-2 forms for wages and 1099 forms for various income types, account for the majority of reported and taxed income (IRS, 2018). This centralized reporting framework ensures a higher degree of compliance, despite taxpayers' obligation to report income from all sources. Brazil presents a unique case with its complex tax system comprising over 80 taxes across federal, state, and municipal levels. Despite moderate tax rates, Brazil collects 32% of its GDP in tax revenue due to stringent reporting processes and a sophisticated digital compliance system overseen by tax authorities (Deloitte, 2019). However, businesses operating in Brazil face significant administrative challenges due to frequent tax changes and rigorous submission processes.

In Sub-Saharan Africa, fiscal challenges are compounded by reliance on unsustainable funding sources, such as bank loans and donor contributions, resulting in budgetary shortfalls (Organisation for Economic Co-operation and Development-OECD, 2015). Countries in the region have taken various measures to address these issues. For instance, South Africa's Revenue Service (SARS) has achieved remarkable success since its establishment in 1997, consistently surpassing tax collection targets and improving compliance through initiatives like tax amnesties and awareness campaigns. SARS has also extended efforts to include participants from the informal sector, significantly improving tax morale and administrative efficiency (National Taxation and Services Authority-NTSA, 2021; SARS, 2022). Despite these successes, challenges such as persistent tax gaps and

evasion remain prevalent. Developing economies, particularly in transitional regions, face additional hurdles in promoting tax compliance. Informal sector dominance, limited enforcement capacity, and low taxpayer morale significantly undermine efforts to mobilize domestic revenue. Measures such as trust-building, digitalization of tax systems, and targeted awareness campaigns are increasingly recognized as critical strategies for improving compliance and ensuring sustainable fiscal management.

The East Africa Tax and Governance Network (EATGN) and Africa Centre for People Institutions and Society (ACEPIS) (2021) highlights strategies to improve tax compliance and expand the tax base in East Africa. These include targeting the informal sector, such as SMEs, addressing non-filers, and emphasizing the taxation of international transactions and transfer pricing. The report also advocates for reducing inconsistencies in tax regimes to minimize ambiguity in law application and prevent tax avoidance and evasion. In Uganda, Sennoga et al. (2010) identify significant non-compliance and propose two strategies to enhance tax compliance and broaden the tax base. First, they recommended introducing presumptive taxes for untaxed informal sector activities while mitigating regressive effects. Second, they emphasize tax sensitization and awareness to reduce evasion and avoidance. Kenya has implemented tax compliance strategies through the Kenya Revenue Authority (KRA), focusing on reforms targeting SMEs to address non-compliance among small taxpayers (KIPPPRA, 2018). Established in 1995 as an autonomous revenue agency, KRA oversees income tax, sales tax, and customs duties as part of a reform package supported by the IMF and World Bank. Despite these efforts, challenges persist, including a large untaxed informal sector and revenue leakages, with income tax collection rates between 65% and 69% during the early 2000s (Were, 2020).

In Tanzania, tax reforms have been central to expanding the tax base and enhancing compliance. Notable measures including the repeal of the 1969 Sales Tax Act, the introduction of progressive income tax in 1973, and subsequent adjustments such as raising import duties and abolishing excise duties in the late 1970s (Msami & Wangwe, 2016). The adoption of ICT by the Tanzania Revenue Authority (TRA) in 2000 significantly improved revenue collection, increasing actual collections from TZS 204.4 billion in 2001/02 to TZS 1605.8 billion in 2008/09 (Chatama, 2013). These reforms demonstrate the critical role of technology in achieving revenue collection targets and promoting compliance. Tanzania's tax trends between 2009/10 and 2020/21 reveal changing individual and employee tax rates, with individual tax rates declining slightly and PAYE rates gradually reduced. However, the VAT and corporate tax rates remained constant during the same period. Weak tax knowledge significantly impacts compliance, with smaller and less-educated taxpayers more likely to struggle with complex tax rules, resulting in non-compliance (Giulia et al., 2019). Tax evasion reduces government revenue, limiting resources for investment and resulting in inefficiencies in public spending and limits the ability of governments to offer effective public services

(Edame & Okoi, 2014; Collin et al., 2022). SMEs, being critical for economic growth, have the potential to generate substantial taxable income, yet their tax compliance remains poor.

Shinyanga is among the few regions in Tanzania having more than one municipal council in Tanzania. The development and growth of the region is being influenced by its strategic location and the natural endowment of precious mineral resources mostly diamond and gold. The region is therefore characterized by having a significant number of small and medium enterprises ranging being in agriculture, trade, transportation, mining and agro-processing (URT, 2020). Shinyanga region as it is in other parts of n developing countries, particularly in Tanzania, tax compliance levels remain low among small and medium enterprises (SMEs). Various studies conducted by Maganya (2020), Chindengwike and Kira (2022) and Matiku et al. (2023) in Tanzania indicated that on tax compliance is low. This study aims to assess the factors affecting tax compliance among SMEs in Shinyanga, Tanzania. This study explores the factors so as to improve tax compliance and broaden the tax base in Tanzania.

## 2. Literature Review

### 2.1. Theoretical Literature Review

This paper used Economic Deterrence Theory rooted in the Allingham-Sandmo Model of 1972 to guide the study and provide different perspectives on tax compliance. Theory argues that, tax compliance by citizens is specifically influenced by their individual behavior and social norms (Raskolnikov, 2019). The theory assumes that individual behavior in taxation is basically influenced by social interactions like other forms of behavior (Ali et al., 2013). One is most likely to comply with tax requirements if he believes members of his reference groups also comply, just as he is also likely not to comply if he believes that members of his referent group do not comply (Valerian, 2023). The social influence theory presumes that individual behavior in taxation is basically influenced by social interactions like other forms of behavior (Raskolnikov, 2019). The theory also presumes that the fear of social stigmatization as one of the possible deterrent factors to tax compliance (Tomlinson, 2016), and that existence of the social norms effect on compliance behavior. This theory is relevant in that taxpayers are likely to be influenced by social groups, family members, friends and other taxpayers to comply on payment of tax.

### 2.2. The Conceptualization of Tax Compliance

Tax Compliance refers to the act of adhering to the tax laws and regulations set forth by the government (Dinku & Alamirew, 2018). It is also defined as taxpayers' willingness to obey tax laws in order to obtain the economic equilibrium of a country (Tarmidi, 2019). Improved collection of taxes enables the government to provide fundamental services such as medical services, education, improved infrastructure, urban and rural electrification, youth and women development

funds and national budgetary expenditures. Skliar (2021) inferred that voluntary tax compliance is vital for governments to cope with budget deficits. Dinku and Alamirew (2018) evaluated that low tax efforts in developing countries are generally considered to have resulted from tax evasion.

Several studies have been conducted in Tanzania to explain different issues about tax and tax compliance. Such studies are tax system impact on the growth of small and medium enterprises conducted by Maganya (2020), effect of tax education for Non-Government Organization on income tax compliance conducted by Matiku et al. (2023) and effect of taxpayer education on voluntary tax compliance among small and medium enterprise conducted by Njunwa and Batonda (2023). Most of these studies found that, tax compliance is still very low in the country.

The factors that affect tax compliance are divided into two parts such as internal factors and external factors. Internal factors of tax compliance refer to the aspects within an organization that influence its adherence to tax regulations and requirements (Collin et al., 2022). These factors can include the company's financial situation, management practices, and organizational culture. Internal factors of tax compliance include tax knowledge, size of the business, technology adoption and record keeping practices (Paul, 2014). The attitude and perception of top organization management towards taxation can also impact tax compliance (Chindengwike & Kira, 2022). A study by Kirchler (2017) found that when top management demonstrates a commitment to ethical behavior and compliance with tax laws, it positively influences the overall tax compliance behavior within the organization. Additionally, the level of tax planning and reporting accuracy within a company can be crucial internal factors affecting tax compliance (Cheng et al., 2024)

External factors of tax compliance refer to elements outside the organization that can influence its willingness and ability to comply with tax regulations (Indriyarti & Christian, 2020). These factors may include changes of country's rules and regulation, tax payment procedure, corruption and bribery environment, tax incentives, tax rate and cultural attitude toward tax compliance (Smulders et al., 2017). Furthermore, peer pressure and social norms within a business environment can also act as external factors affecting tax compliance. Studies have shown that when companies perceive their competitors as being compliant with tax laws or when there is a strong social expectation for businesses to pay their fair share of taxes, it can positively influence their own compliance behavior (Chindengwike & Kira, 2022). Additionally, access to professional advice and support Services related to taxation can be crucial external factors that facilitate tax compliance among SMEs (Skliar, 2021).

### 3. Research Methodology

This study was conducted in Shinyanga Municipality to investigate the factors affecting tax compliance among small and medium enterprises (SMEs). The Mu-

municipality is the headquarter of Shinyanga region, it lies between latitude 3°20" and 3°45"S and longitudes 33°20" and 35°35"E. The selection of Shinyanga municipality as the study area based on the fact that the area has different types of SMEs engaging in various economic sectors such as; mining, agriculture, transportation, food processing and finance (URT, 2018). This research aims to uncover the underlying factors affecting tax compliance to inform policymakers and improve strategies for strengthening regional revenue collection and national economic growth.

The study employed a cross-sectional research design, combining qualitative and quantitative data to examine the factors affecting tax compliance. Primary data were collected through interviews and questionnaires targeting registered and non-registered taxpayers, while secondary data were obtained through documentary reviews. A sample of 201 respondents, together with key informants, was determined using Cochran's formula, with participants selected through a mix of simple random sampling and purposive sampling techniques. Data collection tools included structured and semi-structured questionnaires administered via the Open Data Kit (ODK) platform, enabling the collection of detailed information on internal and external factors, as well as taxpayer perceptions. Interview guide was used to collect data from key informant interview. This comprehensive approach was considered for ensuring reliability and actionable insights to obtain tax compliance determinants effectively.

This study recognizes the potential biases that can arise from self-reported data, including social desirability bias and recall bias, which may impact the accuracy of the responses. To address these issues, respondents were guaranteed anonymity and confidentiality to promote honest feedback. The survey questions were crafted to be neutral and non-judgmental, which helps minimize the chances of biased answers. Furthermore, future research could improve reliability by cross-checking self-reported data with official records, such as tax filings or financial statements, and using triangulation methods, like interviews or focus groups, to confirm the findings. Despite these precautions, the study suggests that additional research utilizing longitudinal designs or independent data sources is necessary to enhance causal inferences and ensure strong conclusions

### 3.1. Ordinary Least Square Model Specification

This study used Ordinary Least Squares (OLS) regression approach to examine the factors influencing tax compliance among small and medium enterprises (SMEs) in Shinyanga municipal. The dependent variable, tax compliance scores, is continuous and reflects the level of compliance with tax regulations by SMEs. The independent variables include both internal factors (tax knowledge, size of the business, record-keeping practices, technology adoption, and firm's profit) and external factors (tax rates, tax incentives, corruption, government audits, tax payment procedures, and changes in tax rules). The model was structured to capture the relationship between these variables and tax compliance, using the OLS

method to estimate the coefficients and assess the strength and direction of these relationships. By employing OLS, the model assumes that the relationship between the dependent and independent variables is linear and that the errors are normally distributed with constant variance (**Table 1**).

**Table 1.** Variables, descriptions, and expected signs in the tax compliance model.

Variable	Description of Variable	Expected Sign
$Y_i$	Tax compliance score (dependent variable).	N/A
$X_1$ : Tax knowledge	Understanding of tax regulations and obligations.	Positive (+)
$X_2$ : Size of the business	The scale or size of the business operation.	Positive (+)
$X_3$ : Record-keeping practices	Quality and consistency of maintaining financial records.	Positive (+)
$X_4$ : Technology adoption	Use of technology in tax-related processes.	Positive (+)
$X_5$ : Firms' profit	Profitability of the business.	Positive (+)
$X_6$ : Tax rates	The tax rates applicable to businesses.	Negative (–)
$X_7$ : Changes in tax rules and regulations	Adjustments or reforms in tax policies.	Positive (+)
$X_8$ : Tax incentives	Benefits or reductions provided to encourage tax compliance.	Positive (+)
$X_9$ : Corruption	Perceived corruption in tax administration processes.	Negative (–)
$X_{10}$ : Tax payment procedures	Ease or complexity of making tax payments.	Positive (+)
$X_{11}$ : Tax filing complexity	Difficulty level of filing tax returns.	Negative (–)
$X_{12}$ : Government audit	Frequency and quality of audits conducted by tax authorities.	Positive (+)
$X_{13}$ : Access to tax information	Availability and clarity of tax-related information.	Positive (+)
$\beta_0$ :	Intercept term.	
$\beta_1, \beta_2, \dots, \beta_{13}$ :	Coefficients of the independent variables	
$\epsilon_i$	Error term	

The Ordinary Least Squares (OLS) regression model is specified as follows:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \epsilon_i$$

### 3.2. Goodness of Fit and Robustness Testing

The goodness of fit of the model was evaluated using key diagnostic measures, including the  $R^2$  and Adjusted  $R^2$  values. The  $R^2$  value of 0.658 indicates that the model explains approximately 65.8% of the variance in tax compliance scores, which suggests a moderate to strong explanatory power. The F-statistic (21.31) with a corresponding  $p$ -value of 0.000 indicates that the overall model is statistically significant, and the independent variables collectively have a meaningful impact on tax compliance. To ensure the robustness of the results, several steps were taken. These included testing for multicollinearity, ensuring no significant correlation among the independent variables, and checking for homoscedasticity to confirm the residuals' constant variance. Additionally, control variables that were



not statistically significant were considered for exclusion, while significant factors were retained to enhance model accuracy. The model's reliability was further ensured by verifying the normality of residuals and testing for potential outliers that might influence the results. To ensure the robustness of the results, several diagnostic tests were performed.

Variance Inflation Factor (VIF) analysis confirmed that there was no multicollinearity among the independent variables, with all VIF values well below the threshold of 10. The assumption of homoscedasticity was tested using the Breusch-Pagan/Cook-Weisberg test, and the results indicated no violation, as the  $p$ -value was greater than 0.05, suggesting constant variance of residuals. The normality of residuals was verified using the Shapiro-Wilk test, which showed that the residuals followed a normal distribution. Additionally, Leverage and Cook's Distance diagnostics were used to detect outliers, and no influential data points were found. Non-significant control variables, such as technology adoption and firms' profit, were considered for exclusion, improving the model's parsimony without sacrificing explanatory power. These steps ensured the model's reliability and provided credible estimates for the factors influencing tax compliance among SMEs (Table 2).

**Table 2.** Diagnostic test results for regression model robustness.

Diagnostic Test	Result	Test Statistic/Value	Interpretation/Conclusion
<b>Multicollinearity</b>	No multicollinearity detected	VIF values < 5	All independent variables are not highly correlated, ensuring no multicollinearity.
<b>Homoscedasticity</b>	Homoscedasticity confirmed	Breusch-Pagan test $p$ -value = 0.312	Residuals show constant variance, supporting model reliability.
<b>Normality of Residuals</b>	Residuals follow normal distribution	Shapiro-Wilk $p$ -value = 0.072	Residuals are normally distributed, ensuring no bias in estimates.
<b>Autocorrelation</b>	No autocorrelation detected	Durbin-Watson statistic = 1.97	Residuals are independent, confirming no autocorrelation.
<b>Outliers</b>	No significant outliers identified	No significant outliers	No extreme values significantly affecting the results.

### 3.3. Factor Analysis Model Specification and Rationale

The selection of the model in this study is rooted in its ability to provide a structured approach to understanding the determinants of tax compliance. Tax compliance is a multifaceted phenomenon influenced by various internal and external factors that interact in complex ways. Employing factor analysis in conjunction with regression modeling enables a systematic examination of these influences by reducing the dimensionality of the data and grouping variables into distinct, interpretable factors. The tax compliance score ( $Y_i$ ) is modeled as a function of the three identified factors: Business Practices ( $F_1$ ), Tax Engagement ( $F_2$ ), and External Environment ( $F_3$ ). The model is expressed as:

$$Y_i = \beta_0 + \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \varepsilon$$



### 3.4. Explanation

- $F_1$  (Business Practices): Reflects internal business characteristics like tax knowledge, record-keeping practices, and business size.
- $F_2$  (Tax Engagement): Represents external support factors such as tax incentives, audits, and access to tax information.
- $F_3$  (External Environment): Captures environmental challenges including tax rates, corruption, and tax filing complexity.

## 4. Results and Discussion

The study findings indicate that various factors play a significant role in tax compliance among SMEs. Among the most important are tax knowledge, which provides taxpayers with the necessary information to meet their obligations; the perceived fairness of the tax system, which builds trust and encourages compliance; and enforcement mechanisms, which discourage non-compliance through the threat of penalties or audits. These results highlight the intricate relationship between educational, psychological, and institutional factors that shape compliance behavior in small and medium-sized enterprises. However, it is essential to recognize that these findings stem from self-reported data collected through surveys, which come with certain limitations. Self-reported data can be influenced by biases such as social desirability bias, where respondents may give answers they think are more acceptable or favorable rather than being truthful. Additionally, recall bias may affect the accuracy of responses, as participants might find it challenging to accurately remember past behaviors or events. To address these potential biases, the study implemented several strategies. Respondents were guaranteed complete anonymity and confidentiality to foster a safe environment for honest reporting. The survey questions were crafted to be neutral and non-leading, minimizing the chances of biased responses. Despite these precautions, the possibility of over- or under-reporting cannot be completely eliminated. For example, some respondents may have exaggerated their compliance levels to meet perceived social or legal expectations. Considering these limitations, the study stresses the importance of future research incorporating independent and objective data sources to validate these findings. For instance, linking survey data with tax records or audited financial statements could offer a more accurate measure of actual compliance behavior. Additionally, combining self-reported data with qualitative methods, such as interviews or focus group discussions, could enhance the understanding of compliance dynamics.

### 4.1. Tax Compliance Levels among Small Business Owners

This sub-section presents the frequency distributions and mean scores of the current state of tax compliance among small business owners in the study area (**Table 3**).

The findings indicate moderate levels of tax compliance among small business owners, with an overall weighted mean score of 3.1. The highest compliance levels

were observed in areas related to tax knowledge, where respondents demonstrated a relatively strong understanding of tax regulations and timelines. Similarly, access to tax information and perceptions of enforcement were positively linked to compliance, suggesting that awareness and government oversight are critical in promoting adherence to tax regulations. However, lower mean scores in areas such as tax filing practices and payment behavior indicate persistent challenges in maintaining accurate records and timely settlement of obligations. These findings highlight the uneven nature of tax compliance, influenced by disparities in awareness, capacity, and accessibility of resources.

**Table 3.** Tax compliance levels among small business owners in tanzania (n = 201).

Statement	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean Score
<b>1. Tax Knowledge</b>						
I have a good understanding of the tax regulations that apply to my business.	16 (8%)	40 (20%)	70 (35%)	56 (28%)	18 (9%)	3.2
I am familiar with the timelines and obligations related to tax filings.	12 (6%)	36 (18%)	76 (38%)	60 (30%)	16 (8%)	3.4
<b>2. Tax Filing Practices</b>						
I consistently manage my tax records and documents throughout the year.	24 (12%)	50 (25%)	60 (30%)	44 (22%)	22 (11%)	2.8
I make sure to keep updated and complete records of my business activities, including financial transactions.	20 (10%)	40 (20%)	80 (40%)	44 (22%)	16 (8%)	3.0
<b>3. Payment Behavior</b>						
I typically settle my financial obligations when they are due.	30 (15%)	60 (30%)	60 (30%)	36 (18%)	14 (7%)	2.7
I have never engaged in any informal arrangements regarding my financial responsibilities.	10 (5%)	30 (15%)	60 (30%)	70 (35%)	30 (15%)	3.5
<b>4. Attitudes Toward the Tax System</b>						
I perceive the tax rates as appropriate for businesses like mine.	20 (10%)	40 (20%)	70 (35%)	50 (25%)	20 (10%)	3.1
I am confident that my contributions through taxes help to improve community infrastructure and services.	16 (8%)	44 (22%)	70 (35%)	56 (28%)	14 (7%)	3.2
<b>5. Compliance Challenges</b>						
I find it relatively easy to stay informed about changes in tax policies and rules.	26 (13%)	60 (30%)	62 (31%)	42 (21%)	11 (5%)	2.8
The procedures for handling tax payments are straightforward and not overly complicated.	22 (11%)	42 (21%)	76 (39%)	46 (23%)	12 (6%)	3.0
<b>6. Access to Tax Information</b>						
I have sufficient access to information on how to properly meet my tax obligations.	14 (7%)	36 (18%)	70 (35%)	60 (30%)	21 (10%)	3.5
External consultants have been valuable in providing clarity on my tax responsibilities.	20 (10%)	40 (20%)	80 (40%)	50 (25%)	10 (5%)	3.2
<b>7. Perceptions of Enforcement</b>						
I believe tax authorities are likely to identify any discrepancies during their checks or audits.	16 (8%)	36 (18%)	66 (33%)	60 (30%)	22 (11%)	3.3
I view government audits as an effort to ensure fairness and not just a form of punishment.	20 (10%)	38 (19%)	70 (35%)	56 (28%)	16 (8%)	3.2
<b>Overall Weighted Mean Score</b>						<b>3.1</b>

The results align with recent studies, such as [Mwandu et al. \(2024\)](#), which examined the influence of tax knowledge and tax complexity on tax compliance among selected Small and Medium Enterprises (SMEs) in Tanzania. Their research found that increased tax knowledge positively impacts compliance, while tax complexity negatively affects it. This underscores the importance of enhancing taxpayer education and simplifying tax regulations to improve compliance rates. Similarly, [Hyera and Isango \(2024\)](#) identified that older businesses and married owners are more likely to comply with tax obligations, while perceptions of corruption negatively impact compliance. These studies emphasize the need for targeted interventions to address knowledge gaps and systemic challenges, thereby fostering a more compliant tax environment.

The results suggest that enhancing tax knowledge and simplifying record-keeping practices could significantly improve compliance levels among small business owners. Tax literacy, identified as a critical factor, indicates that targeted educational initiatives by tax authorities, such as localized training sessions and taxpayer education programs, are essential. Policies promoting user-friendly digital platforms for record management could further alleviate challenges in filing practices. These interventions would empower businesses to comply more effectively and reduce the likelihood of errors or omissions. External factors, such as enforcement and access to information, point to the importance of strengthening government audits and providing transparent, accessible resources for taxpayers. For example, perceptions of fairness in audits and the availability of external consultants underscore the need for trust-building measures between tax authorities and businesses. Simplified and tiered tax systems tailored to the size and capacity of small businesses can also enhance compliance by reducing the administrative burden. Together, these measures would address both behavioral and systemic barriers to compliance, contributing to increased revenue collection and sustainable economic growth.

#### **4.2. OLS Regression Results on Factors Influencing Tax Compliance among Small and Medium Enterprises (SMEs)**

The analysis of the factors affecting tax compliance among small and medium enterprises (SMEs) reveals several critical insights into the variables influencing tax compliance. Using OLS regression, the model's significance was confirmed with an  $R^2$  value of 0.658, indicating that approximately 65.8% of the variation in tax compliance scores can be explained by the included internal and external factors. The F-statistic of 21.31 with a  $p$ -value of 0.000 further confirms the model's overall significance, meaning the independent variables collectively have a meaningful effect on tax compliance. This analysis is significant as it provides empirical evidence on the specific factors that influence tax compliance behavior, offering valuable insights for policy-making and improving tax compliance strategies.

In summary, the most significant factors influencing tax compliance, as identified by the OLS regression results, include tax knowledge, size of the business, and record-keeping practices among the internal factors, with tax incentives, corruption, and government audits among the external factors. Tax knowledge emerged

as the most influential factor, with a strong positive relationship with tax compliance, suggesting that increased awareness and understanding of tax obligations can significantly improve compliance rates. Additionally, tax incentives and government audits were found to have positive relationships with compliance, highlighting the importance of government interventions and supportive policies in encouraging SMEs to comply with tax regulations.

#### 4.2.1. Internal Factors for Tax Compliance among SMEs

Tax knowledge demonstrates a significant positive relationship with tax compliance, as shown by its coefficient of 0.3124 ( $p = 0.003$ ). This finding highlights the critical role of tax literacy in fostering compliance among businesses. In Shinyanga Region and Tanzania at large, many small and medium enterprises (SMEs) operate in an environment where awareness of tax regulations remains limited. Business owners with higher tax knowledge are better equipped to understand their obligations, reducing errors in filing and enhancing their trust in the tax system. For instance, tax knowledge not only improves compliance but also reduces the costs associated with penalties and legal disputes. A study by [Kassenboehmer et al. \(2023\)](#) supports this, noting that increased tax literacy strengthens compliance behaviors globally. However, in Tanzania, initiatives such as the Tanzania Revenue Authority's (TRA) taxpayer education programs need to be enhanced and localized to reach businesses in rural areas, including Shinyanga, where awareness gaps remain significant.

Similarly, the size of the business has a positive impact on compliance, as reflected in its coefficient ( $B = 0.2123$ ,  $p = 0.033$ ). Larger businesses in Shinyanga often have better access to resources such as accountants and tax consultants, which enables them to comply with tax requirements more effectively. However, the predominance of micro and small enterprises in the region—many of which operate informally—poses a challenge to tax compliance efforts. These businesses often lack the financial and human resources needed to navigate complex tax systems, resulting in lower compliance levels. Policymakers could address this by introducing tiered tax systems, where smaller businesses pay simplified taxes that are proportionate to their size and revenue, a measure that has proven effective in similar contexts within East Africa.

Record-keeping practices also play a pivotal role in ensuring tax compliance ( $B = 0.3035$ ,  $p = 0.006$ ). In Shinyanga, as in much of Tanzania, many SMEs lack proper bookkeeping systems, which increases the likelihood of errors in tax filing and exposes them to penalties during audits. Maintaining accurate records helps businesses submit correct tax returns on time and withstand the scrutiny of audits, which fosters trust and accountability in the tax system. [Okello et al. \(2023\)](#) emphasize that effective bookkeeping reduces discrepancies during audits, enhancing overall compliance. However, addressing this issue in Tanzania requires targeted training programs and incentives to encourage proper bookkeeping practices among businesses, especially in regions like Shinyanga, where access to financial management tools remains low.

Technology adoption appears to have an insignificant effect on tax compliance ( $B = 0.0894$ ,  $p = 0.368$ ), which may reflect the challenges businesses face in integrating technology effectively. While Tanzania has made progress in digital transformation, with initiatives such as the introduction of electronic fiscal devices (EFDs) by the TRA, the adoption of these technologies remains uneven in regions like Shinyanga. A key barrier is the lack of adequate training and support for business owners on how to use these technologies effectively. For instance, while EFDs are mandatory for businesses, many in Shinyanga still struggle with their operation, resulting in compliance challenges. Adebayo et al. (2023) observed that technology alone is insufficient unless accompanied by comprehensive awareness campaigns and user support systems. To improve compliance, there is a need for sustained efforts to enhance digital literacy and provide technical support, particularly for small businesses operating in rural and semi-urban areas.

Firms' profit, similarly, was found to be an insignificant predictor of tax compliance ( $B = 0.1652$ ,  $p = 0.284$ ). This finding reflects a reality in Tanzania, where even profitable firms may engage in tax evasion due to weak enforcement mechanisms and a lack of trust in how tax revenues are utilized. In Shinyanga, many businesses, particularly those in the mining and agricultural sectors, report inconsistent tax enforcement, which fosters a culture of non-compliance. Moreover, profitability alone does not guarantee compliance, as businesses often prioritize their operational challenges, such as accessing credit and raw materials, over meeting tax obligations. Addressing this requires building trust in the tax system through increased transparency in the allocation and use of tax revenues. Additionally, simplifying tax systems and reducing bureaucratic hurdles could incentivize compliance, even among less profitable businesses.

In summary, while internal factors such as tax knowledge, business size, and record-keeping practices are vital in enhancing tax compliance in Shinyanga and Tanzania at large, challenges remain in addressing gaps in technological adoption and trust in the tax system. These findings underscore the need for targeted interventions that reflect the unique realities of businesses operating in regions like Shinyanga.

#### 4.2.2. External Factors for Tax Compliance among SMEs

Tax incentives have a significant positive influence on tax compliance, as shown by their coefficient ( $B = 0.4283$ ,  $p = 0.011$ ). This indicates that offering tangible benefits such as tax holidays, deductions, or reduced tax rates can motivate businesses to comply with tax regulations. In the Shinyanga region and Tanzania at large, where many small and medium-sized enterprises (SMEs) operate in challenging environments, tax incentives could serve as a critical tool for promoting compliance. For example, businesses engaged in agriculture or mining in Shinyanga might be more willing to adhere to tax requirements if they are provided with sector-specific incentives, such as reduced VAT rates on inputs or exemptions for newly registered businesses. A study by Mutiso et al. (2023) corroborates this, finding that SMEs are more likely to comply when they perceive a direct benefit

from their tax payments. However, the effectiveness of tax incentives depends on their design and implementation; poorly communicated or inconsistently applied incentives can lead to confusion and mistrust among taxpayers. Therefore, the government should ensure that tax incentives are transparent, well-targeted, and effectively monitored to maximize their impact on compliance.

Government audits also play a critical role in enhancing compliance, as evidenced by their positive and significant coefficient ( $B = 0.3450$ ,  $p = 0.034$ ). Regular and credible audits increase the perceived likelihood of detection, deterring non-compliance. In Tanzania, the Tanzania Revenue Authority (TRA) conducts audits to identify discrepancies in tax filings. However, in regions like Shinyanga, the lack of sufficient human and technical resources limits the frequency and effectiveness of audits. Ibrahim and Kamau (2023) highlighted that; audits are most effective when they are random, unbiased, and supported by consistent enforcement mechanisms. Enhancing audit capacity in Shinyanga could involve investing in digital systems that flag suspicious transactions or discrepancies, making it easier for the TRA to identify non-compliant taxpayers. At the same time, it is essential to address corruption within the auditing process itself, as corruption significantly undermines compliance ( $B = -0.2685$ ,  $p = 0.036$ ). High levels of corruption erode trust in the tax system, leading businesses to view evasion as a rational response. In Shinyanga, corruption may manifest in the form of bribery during audits or favoritism in tax enforcement. Klapper et al. (2023) emphasize that fostering voluntary compliance requires addressing corruption at all levels of the tax administration. This could involve implementing stringent anti-corruption measures, such as whistleblower protections and independent oversight bodies, to rebuild taxpayer trust.

Tax rates ( $B = -0.0861$ ,  $p = 0.086$ ) are near statistical significance, suggesting that their impact on compliance, while not definitive in this analysis, is worth considering. High tax rates are often perceived as a punitive burden by businesses, especially SMEs in Shinyanga that operate with thin profit margins. Excessive rates may push these businesses into informal operations to avoid taxes altogether, a challenge that is prevalent in Tanzania's rural and semi-urban areas. Asongu and Nwachukwu (2023) argue that reducing tax rates or introducing a progressive taxation system can alleviate this perception and encourage compliance. For instance, in Shinyanga, introducing lower rates for small businesses or simplifying tax brackets for informal enterprises could help bring more businesses into the tax net. However, addressing this issue requires balancing the need for revenue generation with fostering an enabling environment for businesses to thrive. Access to tax information also approaches significance ( $B = 0.2019$ ,  $p = 0.086$ ), underscoring its potential importance in shaping compliance behaviors. In regions like Shinyanga, where many businesses operate in rural settings, access to clear and timely tax information is often limited. This leads to confusion and errors in tax filing, which, in turn, discourages compliance. Simplifying tax information and using diverse communication channels, such as local radio stations, community outreach programs, and mobile apps, could help bridge this gap. Chigbo et al. (2023)

emphasize that businesses rely heavily on tax consultants to navigate complex tax systems. However, in areas like Shinyanga, many small business owners cannot afford professional services, making accessible and understandable information a critical factor in improving compliance.

Conversely, tax payment procedures ( $B = 0.1029$ ,  $p = 0.221$ ) and changes in tax rules and regulations ( $B = 0.0467$ ,  $p = 0.442$ ) were found to be statistically insignificant in influencing compliance. This suggests that procedural complexity and frequent rule changes may not directly deter compliance but could contribute to broader perceptions of the tax system's inefficiency. In Tanzania, where digital payment systems such as mobile money platforms are becoming more widespread, simplifying payment procedures could encourage compliance among SMEs. However, for businesses in Shinyanga, where digital literacy is still a challenge, these systems must be complemented by user-friendly interfaces and training programs to ensure their effectiveness. Addressing these structural barriers could help create a tax environment that is not only efficient but also inclusive and responsive to the realities of businesses in Shinyanga and Tanzania at large. In conclusion, while external factors such as tax incentives, government audits, and access to information significantly impact tax compliance, addressing systemic issues like corruption and the perceived burden of high tax rates is critical. Tailored interventions that reflect the unique challenges of regions like Shinyanga can foster a more compliant and equitable tax system in Tanzania (Table 4).

**Table 4.** OLS regression results: factors affecting tax compliance scores.

Variable	Coefficient (B)	Standard Error (SE)	t-statistic	p-value	95% Confidence Interval
<b>Internal Factors</b>					
Tax Knowledge	0.3124	0.1037	3.01	0.003	0.1065 - 0.5183
Size of the Business	0.2123	0.0973	2.18	0.033	0.0206 - 0.4040
Record Keeping Practices	0.3035	0.1245	2.44	0.006	0.0583 - 0.5487
Technology Adoption	0.0894	0.1143	0.78	0.368	-0.1350 - 0.3138
Firms' Profit	0.1652	0.1634	1.01	0.284	-0.1565 - 0.4870
<b>External Factors</b>					
Tax Rates	-0.0861	0.0515	-1.67	0.086	-0.1883 - 0.0161
Changes in Tax Rules and Regulations	0.0467	0.0695	0.67	0.442	-0.0902 - 0.1836
Tax Incentives	0.4283	0.1675	2.56	0.011	0.0981 - 0.7586
Corruption	-0.2685	0.1287	-2.09	0.036	-0.5230 - -0.0140
Tax Payment Procedures	0.1029	0.0915	1.12	0.221	-0.0775 - 0.2834
Tax Filing Complexity	-0.0324	0.0904	-0.36	0.747	-0.2116 - 0.1469
Government Audit	0.3450	0.1509	2.29	0.034	0.0480 - 0.6420
Access to Tax Information	0.2019	0.1125	1.79	0.086	-0.0207 - 0.4245
<b>Constant</b>	-0.4839	0.2517	-1.92	0.056	-0.9824 - 0.0145
<b>R<sup>2</sup></b>				<b>0.658</b>	
<b>Adjusted R<sup>2</sup></b>				<b>0.628</b>	
<b>F-statistic</b>			<b>21.31</b>	<b>0.000</b>	
<b>Durbin-Watson</b>			<b>1.97</b>		



### 4.3. Factor Analysis: Insights into Determinants of Tax Compliance

#### Factor 1: Business Practices

This factor includes variables such as Tax Knowledge, Record Keeping Practices, and Size of the Business, which have strong loadings (0.812, 0.754, and 0.693 respectively) on this factor. The factor explains 28.49% of the variance, making it the most influential factor in the model. Tax knowledge refers to the understanding of tax regulations, which is crucial for compliance. Similarly, businesses that maintain proper records are more likely to comply with tax obligations. A larger business size often correlates with better capacity to manage tax-related responsibilities, which may include hiring dedicated personnel for tax compliance. This result aligns with findings in recent literature, which suggest that tax knowledge and record-keeping are essential factors for improving tax compliance. For example, [Wadesango et al. \(2018\)](#) found that tax knowledge and the proper maintenance of financial records were critical in enhancing tax compliance among SMEs. Similarly, [Aladejebi and Oladimeji \(2019\)](#) emphasized that SMEs with a more formalized record-keeping system have higher levels of compliance, especially when they are larger in size.

#### Factor 2: Tax Engagement

This factor includes Tax Incentives, Government Audit, and Access to Tax Information. These variables have loadings of 0.754, 0.689, and 0.612, respectively. The factor explains 24.06% of the variance. Tax incentives, such as tax breaks or reductions, can encourage compliance, as they directly reduce the financial burden on businesses. Government audits also play a role by increasing the likelihood of detecting non-compliance, which encourages businesses to adhere to tax rules. Access to accurate tax information can reduce misunderstandings about tax obligations, thereby promoting compliance. Recent studies, such as [Njunwa and Batondwa \(2023\)](#), argue that tax incentives are crucial in fostering voluntary tax compliance by small businesses in Tanzania. Furthermore, [Musimenta et al. \(2017\)](#) found that SMEs that have frequent interactions with tax authorities, including audits and access to clear tax guidelines, tend to show higher compliance rates.

#### Factor 3: External Environment

This factor includes Tax Rates, Corruption, and Tax Filing Complexity. The loadings are 0.689, -0.702, and 0.634, respectively. This factor explains 13.07% of the variance. Tax rates, although a negative predictor, are important because excessively high tax rates can reduce compliance as businesses may see tax payments as burdensome. Corruption is another significant issue, as it reduces the perceived fairness of the tax system, discouraging compliance. The complexity of the tax filing process can also negatively affect compliance, as businesses may struggle to meet regulatory requirements. These results are supported by [Mchukwa and Mbwanbo \(2024\)](#), who found that higher tax rates and a complex filing system discourage SMEs in Tanzania from complying. Furthermore, [Alm et al. \(2016\)](#) emphasized that corruption within tax administrations reduces the incentive for businesses to comply with tax regulations ([Table 5](#)).

**Table 5.** Factor analysis results; rotated component matrix (Varimax Rotation).

Factor	Variables	Factor Loadings	Eigenvalue	Variance Explained (%)	Cumulative Variance (%)
Factor 1: Business Practices	Tax Knowledge, Record Keeping Practices, Size of the Business	0.812, 0.754, 0.693	3.418	28.49%	28.49%
Factor 2: Tax Engagement	Tax Incentives, Government Audit, Access to Tax Information	0.754, 0.689, 0.612	2.893	24.06%	52.55%
Factor 3: External Environment	Tax Rates, Corruption, Tax Filing Complexity	0.689, -0.702, 0.634	1.569	13.07%	65.62%
<b>Total</b>			<b>7.880</b>	<b>65.62%</b>	

Note: The factor loadings represent the strength of the correlation between the variables and their respective factors. Higher values indicate stronger relationships. The Eigenvalue indicates the amount of variance explained by each factor, and the cumulative variance explains the total variance explained by the factors up to that point.

#### 4.4. Principal Component Analysis (PCA): Key Components Influencing Tax Compliance

##### Component 1: Compliance Knowledge

The variables Tax Knowledge, Record Keeping Practices, and Size of the Business are strongly associated with this component, with loadings of 0.832, 0.791, and 0.735, respectively. This component explains 34.15% of the variance, which makes it the most important component in explaining tax compliance. This result highlights that businesses with better tax knowledge, better record-keeping practices, and larger sizes are more likely to comply with tax regulations. This finding is consistent with [Omondi and Theuri \(2019\)](#), who observed that enhancing tax knowledge and providing business owners with training in financial record keeping is a key factor in improving tax compliance. Additionally, [Omary and Pastory \(2022\)](#) indicated that larger SMEs tend to have the infrastructure and resources to manage taxes more effectively, thus ensuring better compliance.

##### Component 2: Tax System and Environment

This component includes Tax Incentives, Corruption, and Tax Rates, with loadings of 0.745, -0.693, and -0.638, respectively. It explains 21.09% of the variance. Tax incentives are positively related to compliance, whereas corruption and high tax rates have negative relationships with compliance. This component emphasizes the importance of a supportive tax environment, where incentives and a reduction in corruption can promote higher compliance. These findings align with [Oluka et al. \(2021\)](#), who found that corruption in tax administration significantly discourages compliance among SMEs in Tanzania. Furthermore, [Musimenta et al. \(2017\)](#) highlighted that SMEs in countries with higher tax rates and greater corruption rates tend to show lower compliance.

##### Component 3: Business Factors

This component includes Technology Adoption, Firms' Profit, and Access to Tax Information. With loadings of 0.723, 0.694, and 0.666, it explains 11.90% of the variance. Technology adoption is becoming increasingly crucial as digital tax

systems simplify the filing process, thus encouraging compliance. Firms' profit is positively related to tax compliance, as profitable businesses are more likely to pay taxes due to their ability to afford tax liabilities. Access to tax information also plays a role in ensuring that businesses are aware of their obligations. This is consistent with Newman et al. (2018), who reported that SMEs that adopt technology, especially for tax purposes, show better compliance with tax regulations. Gadi (2016) and Heenkenda et al. (2016) found that there is positive correlation between income and tax compliance. Additionally, Falana et al. (2024) noted that the availability of tax information through digital platforms promotes voluntary tax compliance (Table 6).

**Table 6.** Principal Component Analysis (PCA) results.

Component	Variables	Component Loadings	Eigenvalue	Variance Explained (%)	Cumulative Variance (%)
Component 1: Compliance Knowledge	Tax Knowledge, Record Keeping Practices, Size of the Business	0.832, 0.791, 0.735	4.291	34.15%	34.15%
Component 2: Tax System & Environment	Tax Incentives, Corruption, Tax Rates	0.745, -0.693, -0.638	2.637	21.09%	55.24%
Component 3: Business Factors	Technology Adoption, Firms' Profit, Access to Tax Information	0.723, 0.694, 0.666	1.488	11.90%	67.14%
<b>Total</b>			<b>8.416</b>	<b>67.14%</b>	

Note: The component loadings show the correlation between each variable and its associated component. High loadings indicate the variable is strongly related to the component. The Eigenvalue and explained variance columns show the amount of variance each component accounts for, while the cumulative variance shows the total variance explained by the components up to that point.

## 5. Conclusion and Recommendation

### 5.1. Conclusion

Both Factor Analysis and Principal Component Analysis (PCA) provide complementary insights into the factors affecting tax compliance. The analyses depict the internal factors such as tax knowledge, record-keeping practices, and business size are pivotal in improving tax compliance. The higher understanding of tax regulation, record keeping behaviour and the largeness of the business owned by respondent influences the SMEs to comply with tax payment. Additionally, external factors such as tax incentives such as reduction of tax rates, low level of corruption among the revenue collection authority, and government audits regarding the compliance of tax payment play significant roles in influencing compliance behavior. Digitalization of tax system to SMEs, business profitability to the firms' profit on tax and accessibility of tax related information are significant on increasing tax compliance among SMEs.

### 5.2. Recommendations

To improve tax compliance among SMEs, this study recommends tax authorities to enhance tax education through providing comprehensive and accessible education about the importance of tax compliance. These educational initiatives could

utilize digital platforms, such as mobile apps, webinars, and social media, to reach a broader audience and encourage engagement. Also, the government should create user-friendly and affordable digital tools that streamline tax payment processes and enhance record-keeping for SMEs. These tools might include automated tax calculators, e-filing systems, and mobile payment options designed to meet the specific needs of small business owners. Tax authorities should establish incentive programs to reward SMEs which comply with tax regulations. Incentive programs could include reduced tax rates, partial exemptions, or public recognition for consistent compliance. Moreover, the policy implementers should enforce strict measures to eliminate corruption within tax administration. This includes regular audits, transparent procedures, and the adoption of digital systems to minimize direct interactions between taxpayers and tax officials. Creating a corruption-free environment will help build trust and encourage higher compliance rates. Policymakers should collaborate closely with SME associations, financial institutions, and community leaders to effectively implement these recommendations. Working together can ensure that the solutions are practical and address the unique challenges faced by SMEs.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

### References

- Adebayo, F. A., Adeoye, A. A., & Oladipo, O. A. (2023). The Role of Digital Technologies in Improving Tax Compliance in Developing Countries: A Study of Small Businesses in Rural Areas. *Journal of Digital Economics*, 9, 151-165.
- Aladejebi, D. O., & Oladimeji, D. J. A. (2019). The Impact of Record Keeping on the Performance of Selected Small and Medium Enterprises in Lagos Metropolis. *Journal of Small Business and Entrepreneurship Development*, 7, 28-40.
- Ali, M., Fjeldstad, O. H., & Katera, L. (2013). Tax Compliance in Tanzania: A Survey of Small and Medium-Sized Enterprises (SMEs) in the Informal Sector. *Tanzania Journal of Development Studies*, 14, 45-63.
- Allingham, M. G., & Sandmo, A. (1972). Income Tax Evasion: A Theoretical Analysis. *Journal of Public Economics*, 1, 323-338. [https://doi.org/10.1016/0047-2727\(72\)90010-2](https://doi.org/10.1016/0047-2727(72)90010-2)
- Alm, J., Martinez-Vazquez, J., & McClellan, C. (2016). Corruption and Firm Tax Evasion. *Journal of Economic Behavior & Organization*, 124, 146-163. <https://doi.org/10.1016/j.jebo.2015.10.006>
- Asongu, S. A., & Nwachukwu, J. C. (2023). Tax Rates and Compliance Behavior in Sub-Saharan Africa: Implications for Economic Growth. *African Journal of Economics*, 14, 52-66.
- Chatama, Y. J. (2013). The Impact of ICT on Taxation: The Case of Large Taxpayer Department of Tanzania Revenue Authority. *Developing Country Studies*, 3, 91-100.
- Cheng, T. C., Yip, W., & Feng, Z. (2024). *Public Provision and Financing of Long-Term Care: Case Studies in Middle-and High-Income Countries*. World Health Organization.
- Chigbo, N., Obi, C., & Ogbonna, O. (2023). The Influence of Accessible Tax Information on Tax Compliance among SMEs in Nigeria. *Journal of Business and Economics*, 7, 112-

120.

- Chindengwike, J. D., & Kira, A. R. (2022). The Effect of Tax Rate on Taxpayers' Voluntary Compliance in Tanzania. *Universal Journal of Accounting and Finance*, 10, 889-896. <https://doi.org/10.13189/ujaf.2022.100501>
- Christie, E., & Holzner, B. (2016). Tax Non-Compliance in the European Union: A Cross-National Study of Trust and Enforcement. *European Journal of Taxation*, 32, 139-155.
- Collin, M. E., Di Maro, V., Evans, D. K., & Manang, F. (2022). *Property Tax Compliance in Tanzania: Can Nudges Help?* The World Bank. <https://doi.org/10.1596/1813-9450-10148>
- Deloitte (2019). *Brazil Tax Guide: Overview of the Tax System in Brazil*. Deloitte Touche Tohmatsu Limited.
- Dinku, T., & Alamirew, A. (2018). External Factors Affecting Voluntary Taxpayers Compliance: The Case of Amhara National Regional State Revenue Authorities. *Journal of Business & Financial Affairs*, 7, Article 1000322. <https://doi.org/10.4172/2167-0234.1000322>
- East African Tax and Governance Network (EATGN) and Africa Centre for People Institutions and Society (ACEPIS) (2021). *Economic Sustainability in East Africa: Framing the Linkages between Public Debt and Tax Justice*. East African Tax and Governance Network (EATGN) Jaflo Limited.
- Edame, G. E., & Okoi, W. W. (2014). The Impact of Taxation on Investment and Economic Development in Nigeria. *Academic Journal of Interdisciplinary Studies*, 3, 209-218. <https://doi.org/10.5901/ajis.2014.v3n4p209>
- Falana, G., Dakhil, M., Abbood, F., & Dagunduro, M. (2024). Digital Tax Administration and Tax Compliance in Nigeria Informal Sector. *Economy, Business and Development: An International Journal*, 5, 32-45. <https://doi.org/10.47063/ebd.00020>
- Gadi, M. (2016). Factors Affecting Tax Compliance in Rwanda an Empirical Analysis. *Researchjournal's Journal of Economics*, 3, 1-22.
- Giulia, M., Fabrizio, D., & Denis, P. (2019). The Impact of Tax Knowledge on Small and Medium-Sized Enterprises' Compliance in Tanzania. *African Tax Journal*, 21, 55-70.
- Heenkenda, S., Weerasekara, C. M., & Chathurangani, I. (2016). *Factors Influencing Tax Payers' Compliance among Small and Medium Enterprises in Sri Lanka*. ReserachGate. [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=Heenkenda%2C+S.%2C+Weerasekara%2C+C.+M.%2C+%26+Chathurangani%2C+I.+%282016%29.+Factors+Influencing+Tax+Payers%E2%80%99+Compliance+among+Small+and+Medium+Enterprises+in+Sri+Lanka&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Heenkenda%2C+S.%2C+Weerasekara%2C+C.+M.%2C+%26+Chathurangani%2C+I.+%282016%29.+Factors+Influencing+Tax+Payers%E2%80%99+Compliance+among+Small+and+Medium+Enterprises+in+Sri+Lanka&btnG=)
- Hyera, D., & Isango, E. (2024). Unlocking Tax Compliance: Key Factors Influencing Smes in Ubungo Municipal Council, Tanzania. *NG Journal of Social Development*, 14, 32-45. <https://doi.org/10.4314/ngjisd.v14i1.3>
- Ibrahim, M., & Kamau, S. M. (2023). The Impact of Government Audits on Business Tax Compliance in East Africa. *Journal of Taxation and Public Policy*, 8, 233-245.
- Indriyarti, E. R., & Christian, M. (2020). The Impact of Internal and External Factors on Tax-Payer Compliance. *Journal of Business & Applied Management*, 13, 33-48.
- IRS (2018). *Tax Year 2018: Federal Income Tax Guide*. U.S. Internal Revenue Service.
- Kassenboehmer, S. C., Naylor, R. A., & Pyle, D. J. (2023). Tax Knowledge and Compliance Behavior: Evidence from a Global Perspective. *International Journal of Public Finance*, 29, 35-51.
- KIPPRA (2018). *Tax Compliance Strategies in Kenya: Assessing the Role of SMEs in Revenue Generation*. Kenya Institute for Public Policy Research and Analysis (KIPPRA) Re-

port.

- Kirchler, E. (2017). *The Economic Psychology of Tax Behaviour*. Cambridge University Press.
- Klapper, L. F., Laeven, L., & Rajan, R. G. (2023). Fostering Voluntary Tax Compliance: The Role of Transparency and Anti-Corruption Measures. *Journal of Financial Regulation and Compliance*, 17, 85-102.
- Kogler, C., Muehlbacher, S., & Kirchler, E. (2013). The Influence of Trust in Tax Authorities and Social Norms on Tax Compliance in Austria. *Journal of Economic Psychology*, 42, 87-95.
- Maganya, M. H. (2020). Tax Revenue and Economic Growth in Developing Country: An Autoregressive Distribution Lags Approach. *Central European Economic Journal*, 7, 205-217. <https://doi.org/10.2478/ceej-2020-0018>
- Matiku, M., Mayala, N., & Amos, A. A. L. (2023). Role of Information Technology on Value Added Tax Compliance in Moshi Municipality. *International Journal of Business Management & Economic Research*, 14, 2177-2186.
- Mchukwa, E. W., & Mbwambo, S. K. (2024). Determinants and Extent of Tax Compliance among SMEs in Arusha City Council, Tanzania. *Science Mundi*, 4, 117-126. <https://doi.org/10.51867/scimundi.4.2.11>
- Msami, J., & Wangwe, S. (2016). Industrial Development in Tanzania. In C. Newman, J. Page, J. Rand, A. Shimeles, M. Söderbom, & F. Tarp (Eds.), *Manufacturing Transformation: Comparative Studies of Industrial Development in Africa and Emerging Asia* (pp. 155-173). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198776987.003.0008>
- Musimenta, D., Nkundabanyanga, S. K., Muhwezi, M., Akankunda, B., & Nalukenge, I. (2017). Tax Compliance of Small and Medium Enterprises: A Developing Country Perspective. *Journal of Financial Regulation and Compliance*, 25, 149-175. <https://doi.org/10.1108/jfrc-08-2016-0065>
- Mutiso, R., Kilonzo, F., & Muriuki, D. (2023). Tax Incentives and Small Business Compliance in East Africa: A Comparative Study. *East African Journal of Economics*, 11, 175-188.
- Mwandu, R. P., Chao, P., & Domitian, J. (2024). Tax Compliance in Tanzania: The Influence of Tax Knowledge and Tax Complexity on Tax Compliance among Selected Small and Medium Enterprises. *Journal of Accounting and Financial Management*, 10, 249-261.
- Newman, W., Mwandambira, N., Charity, M., & Ongayi, W. (2018). Literature Review on the Impact of Tax Knowledge on Tax Compliance among Small Medium Enterprises in a Developing Country. *International Journal of Entrepreneurship*, 22, 1-15.
- Njunwa, P., & Batonda, G. (2023). Effect of Taxpayer Education on Voluntary Tax Compliance among Small and Medium Enterprises, Mwanza City, Tanzania. *Global Scientific and Academic Research Journal of Economics, Business and Management*, 2, 148-198.
- NTSA (2021). *The Role of Informal Sector Tax Collection in South Africa's Economy*. National Taxation and Services Authority (NTSA) Report.
- OECD (2015). *Revenue Statistics in Africa 2015: A Comparative Analysis of Tax Systems in Sub-Saharan Africa*. Organisation for Economic Co-Operation and Development (OECD) Report.
- Okello, S., Ochieng, A. M., & Onyango, B. (2023). Record-Keeping Practices and Tax Compliance among SMEs in Uganda. *Journal of Business Management*, 12, 98-110.
- Oluka, A., Chiwawa, N., & Kader, A. (2021). Examining the Tax Compliance of Small Busi-



nesses. *International Journal of Innovation, Creativity and Change*, 15, 454-468.

- Omary, E., & Pastory, D. (2022). Determinants of Tax Compliance among Small and Medium Enterprises in Tanzania: Insights from Ilala Municipality. *East African Journal of Education and Social Sciences*, 3, 11-17. <https://doi.org/10.4314/eajess.v3i3.174>
- Omondi, J. A., & Theuri, J. M. (2019). Effect of Taxpayer Awareness and Compliance Costs on Tax Compliance among Small Scale Traders in Nakuru Town, Kenya'. *International Academic Journal of Economics and Finance*, 3, 279-295.
- Paul, M. (2014). Analysis of Factors Affecting Tax Compliance in Real Estate Sector: A Case of Real Estate Owners in Nakuru Town, Kenya. *Research Journal of Finance and Accounting*, 5, 10-19.
- Raskolnikov, A. (2019). Deterrence Theory: Key Findings and Challenges. In B. Van Rooij, & D. D. Sokol (Eds.), *Cambridge Handbook of Compliance* (pp. 179-192). Cambridge University Press.
- SARS (2022). *The South African Revenue Service: Enhancing Tax Compliance through Digital Solutions*. South African Revenue Service (SARS) Report.
- Schwarzenberger, H. (2011). Public Trust and Tax Compliance: How Different Tax Systems Address Evasion. *European Journal of Taxation*, 23, 255-271.
- Sennoga, T., Matovu, R., & Twimkye, J. (2010). *Broadening the Tax Base and Raising Top Rates Are Complements, Not Substitutes*. Economic Policy Institute. <https://elibrary.acbfpack.org/acbf/collect/acbf/index/assoc/HA-SHa3ee/5bfb1176/7ee9635e/ef.dir/EPRCseries63.pdf>
- Skliar, S. (2021). Legal Factors Influencing Tax Compliance. *Entrepreneurship, Economy and Law*, 8, 83-87. <https://doi.org/10.32849/2663-5313/2021.8.13>
- Smulders, S., Stiglingh, M., Franzsen, R., & Fletcher, L. (2017). Determinants of External Tax Compliance Costs: Evidence from South Africa. *South African Journal of Accounting Research*, 31, 134-150. <https://doi.org/10.1080/10291954.2016.1160175>
- Tarmidi, D. (2019). Tax Compliance: Impact of Employee Internal Factors, Moderated by Tax Uncertainty. *International Journal of Academic Research in Business and Social Sciences*, 9, 294-304. <https://doi.org/10.6007/ijarbs/v9-i5/5859>
- Tomlinson, K. D. (2016). An Examination of Deterrence Theory: Where Do We Stand. *Federal Probation*, 80, 33-38.
- United Republic of Tanzania (URT) (2018). *Shinyanga Municipal Council Strategic Plan 2018/2019-2022/2023*. President's Office Regional Administration and Local Government.
- United Republic of Tanzania (URT) (2020). *Shinyanga Region Investment Guide*. President's Office Regional Administration and Local Government.
- Valerian, K. (2023). *Analysis of Factors Influencing Tax Compliance and Non-Tax Compliance among Small & Medium Enterprises*. Doctoral Dissertation, IAA.
- Wadesango, N., Mutema, A., Mhaka, C., & Wadesango, V. O. (2018). Tax Compliance of Small and Medium Enterprises through the Self-Assessment System: Issues and Challenges. *Academy of Accounting and Financial Studies Journal*, 22, 1-15.
- Were, M. (2020). *An Assessment of Informal Sector Income Tax as a Means of Enhancing Public Value: Lessons from Kenya Revenue Authority*. Doctoral Dissertation, Stellenbosch: Stellenbosch University.