Effect of Systems Automation on Turnover Tax Compliance Among Small and Medium Enterprises in Eldoret City, Kenya

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Abstract

Systems automation has emerged as a key driver of efficiency and transparency in tax administration processes. In Kenya, these technological advancements are particularly relevant for SMEs, who often face challenges in meeting tax obligations. This study, therefore, evaluates the effect of systems automation on turnover tax compliance among Small and Medium Enterprises (SMEs) in Eldoret City, Kenya. The Economic Deterrence Theory guided the study. The study adopted a cross-sectional explanatory survey. The target population comprised all 24,416 owners of registered SMEs in Eldoret City, with a sample size of 394 calculated using Yamane's formula. The study employed a stratified random sampling technique to select respondents from SMEs in Eldoret City. The study used questionnaires as a data collection tool. Pre-testing of research instruments was achieved through a pilot study in Nakuru County. questionnaire. To assess the questionnaire's validity, the researcher evaluated content validity through expert reviews. To ensure reliability, the study used a Cronbach's alpha above 0.7 to assess internal consistency. The study used SPSS version 25 for data analysis. The collected data were analyzed using both descriptive and inferential statistics. The findings indicated that systems automation and turnover tax compliance among SMEs in Eldoret City, Kenya, were positively and moderately correlated ($r = 0.736**$, $p < 0.01$). The β coefficient for linear regression indicates that system automation ($\beta_1 = 0.450$, $p < 0.05$), implying that a unit increase in system automation is associated with a 0.450-unit increase in turnover tax compliance among SMEs in Eldoret City. The study concludes that automated systems can be really effective in enhancing turnover tax compliance among SMEs in Eldoret City. The study recommended that Tax authorities should continue to invest in and improve automated tax systems further to increase the accuracy and efficiency of turnover tax filing and reduce errors.

Keywords: *Systems Automation, Turnover Tax Compliance, Small and Medium Enterprises*

1. Introduction

Taxation is an essential component of government finance, constituting a compulsory contribution imposed on individuals, property, income, goods, transactions, and other entities at predetermined rates (Sarmento, 2023). It serves as a significant source of government revenue, playing a pivotal role in fostering economic growth and development. Tax revenue, as highlighted by Moore and Prichard (2020), is a mandatory payment levied by the government on capital assets, income, or expenditure, without necessarily providing direct benefits to taxpayers. Tax collection is crucial for funding government operations and public services, thereby ensuring the smooth functioning of a country's economy. Governments rely on tax revenue to finance essential expenditures, including infrastructure development, healthcare, education, and social welfare programs. Consequently, the level of revenue collected through taxation significantly influences a country's ability to invest in its citizens' well-being and foster sustainable development (Olubunmi et al., 2025).

Turnover tax, governed by the Income Tax Act, Cap 470 laws of Kenya, and introduced through subsidiary legislation such as The Income Tax (Turnover Tax) Rules 2007, came into effect on January 1, 2008 (Oguttu, 2020). It applies to resident individuals whose business income is generated in Kenya and whose annual turnover does not exceed five million shillings. However, certain entities are exempt, including incorporated companies and income subject to final withholding tax under the Act. Compliance with turnover tax entails adherence to specific regulations, policies, and standards established by tax authorities. While there is no universally accepted definition of tax compliance, it typically encompasses meeting registration and reporting requirements, accurately reporting tax liability, making timely tax payments, and honoring applicable court decisions (Allen, 2020).

Australia lacks a formal turnover tax, but compliance requirements under the Goods and Services Tax (GST) system are determined by turnover (Belle Isle, 2021). Companies are required to register for GST if their annual income exceeds AUD 75,000 (AUD 150,000 for non-profits). After registering, businesses must collect GST on taxable supplies, file periodic Business Activity Statements (BAS), and pay taxes to the Australian Taxation Office (ATO). Compliance is thus based on good record-keeping, timeliness in reporting, and accurate calculation of turnover in accordance with GST obligations. ATO uses large amounts of data-matching and digital reporting measures to monitor compliance and identify differences between the reported sales and actual business operations (Kummari, 2025). Although the digitalization of tax systems has enhanced monitoring, it poses challenges for many small businesses, including administrative burdens associated with regular reporting, knowledge of GST rules, and balancing cash flows to meet the obligation to remit GST despite customer delays. Therefore, educational programs for taxpayers and the use of online instructions are important to facilitate compliance (Herawati et al., 2018).

In Singapore, the registration and compliance of Goods and Services Tax (GST) is strongly dependent on turnover (Ikhsan et al., 2022). Businesses must also be registered for GST when their taxable turnover exceeds SGD 1 million in a 12-month period, although voluntary registration is permitted below this threshold. After registration, companies are required to prepare and issue proper tax invoices, maintain precise records, and submit GST returns quarterly. Accuracy and timeliness are key principles of the Inland Revenue Authority of Singapore (IRAS), which has adopted a highly digitized framework that facilitates compliance

for most businesses (Tan & Pan, 2003). Nevertheless, SMEs frequently struggle to distinguish between zero-rated, exempt, and standard-rated supplies, and to manage the administrative aspects of maintaining digital invoices and receipts. The government facilitates compliance by educating the public, providing user-friendly online systems, and maintaining an efficient enforcement system (Drigas & Koukianakis, 2009). Overall, Singapore's success in maintaining high compliance rates may be explained by its short, simple, and clear tax legislation, its focus on taxpayer education, and its use of technology.

Canada has no designated turnover tax, yet under the Goods and Services Tax (GST) and the harmonized sales tax (HST) system, turnover is a significant factor in calculating its tax liability. (Kessler, 2020). Companies with annual tax supplies exceeding CAD 30,000 must be registered for GST/HST and submit returns regularly. Canada Revenue Agency (CRA) offers a wide range of online tools and learning materials to help small businesses address their compliance requirements (Petit et al., 2021). The significant aspects of compliance are maintaining proper revenue records, filing returns on time, and paying taxes collected from customers. The key issues SMEs encounter include failing to disaggregate business and personal expenses, claiming input tax credits illegitimately, and maintaining adequate records to withstand audits. The federal and provincial streamlining of GST/HST further complicates the situation for a firm that conducts business across provinces, since the rates and remittance schedules may differ. Taxpayer education programs, especially those aimed at new entrepreneurs, are thus mandatory in enhancing compliance and reducing administrative errors (Ndubula & Matiku, 2021).

South Africa has a formal Turnover Tax regime for micro- and small-scale businesses, which came into effect in 2009 to streamline taxation and reduce compliance costs for enterprises with a turnover of not more than R1 million/year (Ndlovu, 2025). Under this system, eligible businesses will pay tax on turnover at a single rate, replacing the requirement to pay income tax, provisional tax, and VAT. The rates are progressive with increments depending on turnover bands. Compliance is primarily focused on registration, proper reporting of gross receipts, and filing annual returns (Moore, 2023). The South African Revenue Service (SARS) has created a simplified filing process and web-based resources to support small firms. Nevertheless, challenges remain, including limited awareness of the turnover tax option, difficulties determining eligibility, and a lack of understanding of how turnover tax interacts with other tax regimes. It is also stated that some small businesses prefer to remain under the regular VAT and income tax systems because of the availability of deductions (Schoeman et al., 2022). In general, although the turnover tax in South Africa has alleviated the compliance burden for most micro-enterprises, ongoing taxpayer education and effective communication are crucial for maintaining compliance (Ndlovu & Schutte, 2024).

Tax reforms have increasingly become a key tool for improving tax administration and compliance in developing economies (Carnahan, 2015). The standard practices of reforms usually involve simplifying tax processes, broadening the tax base, and raising government revenues. One of the reforms that specifically targets small and medium firms (SMEs), reducing their burden in a bid to formalize the informal sector and make them contribute equitably to national revenue in Kenya, is the turnover tax. It has been shown that tax reforms can positively affect compliance, not only because they streamline procedures and reduce compliance costs. Indicatively, (2025) established that tax reform in Kenya, including the iTax system, was of great importance for compliance, as it led to fewer filing errors and greater

efficiency. Another similar case was by Alabi et al. (2024). In Nigeria, a study found that SMEs voluntarily complied through tax simplifications, thus enhancing revenue collection. Nevertheless, not all reforms will produce positive results. According to some literature, the uncertainty, confusion, and opposition among the taxpayers arise when tax policy changes frequently.

1.1 Problem Statement

Small and Medium Enterprises (SMEs) play a central role in Kenya's economic development, contributing approximately 70% of Gross Domestic Product (GDP) and 84% of employment (KNBS, 2022). However, given its critical role, turnover tax (TOT) compliance among SMEs is very low on average, posing a major challenge to the mobilization of domestic revenue. The city of Eldoret in Kenya, one of the fastest-developing commercial centers, is estimated to lose a significant amount of revenue to the government because only an estimated 20 percent of the total number of registered SMEs in the city abide by TOT requirements (Ige et al., 2024). KRA stated that the 2022/2023 fiscal year had a revenue gap of around KES 200 billion, and SMEs contributed almost 30 percent of this amount due to failure to meet TOT and other tax requirements (KRA, 2023).

Despite the adoption of several changes to taxation to help promote compliance (Turnover Tax was introduced in 2008, taxation was automated with the introduction of the iTax platform, and tax audits were increased), the level of compliance among SMEs is below the national average (65), with only 59% being reported in 2022 (KRA, 2023). This is a long-term failure to comply that undermines fiscal sustainability, the government's ability to finance essential public services, and national economic development. Therefore, this study sought to establish the effect of systems automation on turnover tax compliance among SMEs in Eldoret City, Kenya.

2. Literature Review

2.1 Theoretical Review

The Economic Deterrence Theory was proposed by Allingham and Sandmo (1972). The theory is proposed as a framework to understand taxpayer compliance behavior within the context of economic decision-making. The theory argues that individuals and businesses make rational choices about whether to comply with tax obligations by weighing the benefits of evasion against the potential costs of detection and penalties. According to Allingham and Sandmo (1972), compliance is determined by the probability of being audited and the severity of penalties for non-compliance. For instance, taxpayers are less likely to evade taxes when they perceive a high likelihood of detection and significant financial or legal consequences. Umanhonlen and Umanhonlen (2020) earlier emphasized similar economic principles in the context of crime and punishment, suggesting that deterrence could significantly reduce undesirable behavior, including tax evasion. This theory provides a structured approach to understanding how enforcement mechanisms influence compliance, offering insights into taxpayer behavior under varying policy conditions.

This is the primary theory supporting this study. This theory offers the most straightforward explanation of the impact of tax reform on taxpayers' behavior and compliance, especially regarding enforcement strategies such as audits, penalties, and system automation. The theory states that individuals and companies make rational choices about tax compliance by weighing

the likely benefits of non-compliance against the likely costs of detection and punishment. Taxpayers tend to comply when the risk of being audited and the severity of penalties are perceived to be high. On the other hand, taxpayers were more likely to evade taxes when enforcement measures were weak and inconsistent.

The Economic Deterrence Theory is used to clarify the impact of tax reforms, such as increased audits, automation with iTax, and stricter enforcement mechanisms, on SMEs' turnover tax compliance in Eldoret City. SMEs evaluate the risk of detection and the severity of punishment, and then determine whether to comply. Therefore, the theory is highly consistent with the independent variable in your study, tax reforms, and the dependent variable, turnover tax compliance.

2.2 Empirical Review

Martins and Picoto (2019) investigated the adoption of information systems for tax compliance in European SMEs, focusing on turnover tax compliance in Portugal. The study aimed to assess the impact of mandatory electronic tax filing systems on VAT compliance. Employing a partial least squares approach with survey data from 94 Portuguese SMEs, the researchers found that automation reduced compliance costs by 25% and increased VAT filing accuracy by 20%. The results indicated that firms using advanced digital systems reported a 15% increase in compliance rates, attributable to streamlined processes. The study concluded that automation enhances compliance by reducing administrative burdens and errors. However, its success depends on firms' technological readiness and training, and it recommends targeted support for small businesses to maximize adoption benefits.

Reyes-Tagle et al. (2023) explored the impact of digital tax administration systems on turnover tax compliance in South America, focusing on Chile's electronic invoicing system. The study aimed to evaluate the effects of automation on VAT compliance among SMEs. Using a difference-in-differences model with data from 1,200 firms over 2018–2020, the researchers found that electronic invoicing increased reported turnover by 22% and VAT compliance by 17%. The results highlighted that real-time data submission reduced opportunities for tax evasion, particularly for smaller firms. The study concluded that digital systems significantly improve compliance by enhancing transparency and reducing administrative costs; however, challenges such as digital literacy and infrastructure access must be addressed to ensure equitable benefits across firm sizes.

Peprah et al. (2022) examined the effectiveness of electronic tax systems in Ghana, focusing on turnover tax compliance among small businesses. The study aimed to assess the influence of e-tax platforms on VAT and turnover tax compliance. Using a survey-based approach with multivariate analysis of variance on data from 200 small businesses, the researchers found that e-tax systems increased compliance rates by 22% and reduced filing errors by 30%. The results showed that automation fostered trust and simplified compliance processes, particularly for SMEs. The study concluded that sustained investment in digital infrastructure and taxpayer education is crucial to maximizing the benefits of compliance, particularly in developing economies with limited access to technology.

According to the Organization for Economic Cooperation and Development (Musimenta, 2020), tax compliance can be better understood by dividing it into two main categories: administrative compliance and technical compliance. Administrative compliance involves adhering to procedural rules governing filing and payment, often referred to as reporting,

procedural, or regulatory compliance. Technical compliance, on the other hand, pertains to adhering to the technical aspects of tax laws, such as the correct calculation of taxes and compliance with specific legal provisions governing payment.

Secondly, Tax compliance refers to taxpayers' adherence to their country's tax regulations. According to Tang (2015), tax compliance is further defined as the accurate reporting of income and alignment of claimed expenses with legal requirements. This concept also encompasses taxpayers' internal motivation to comply with tax laws and contribute to a nation's economic stability (Karaganda Buketov University et al., 2024). Generally, individuals and businesses that earn income are legally required to register as taxpayers, maintain proper records, file tax returns, pay taxes on time, and meet other tax obligations, including the management and remittance of withholding taxes.

Turnover tax (TOT) compliance among small and medium-sized enterprises (SMEs) involves ensuring that these businesses accurately report their turnover, file returns, and pay taxes in accordance with regulatory requirements (Yesegat, 2009). SMEs face unique challenges in meeting TOT compliance requirements, including limited resources, inadequate understanding of tax regulations, and administrative burdens. Effective compliance requires SMEs to maintain detailed financial records, understand the specific turnover tax obligations applicable to their industry, and meet filing and payment deadlines. The complexity of tax laws and the cost of compliance can be particularly burdensome for small and medium-sized enterprises, potentially leading to errors or delays. To improve compliance rates, SMEs benefit from targeted tax education programs, simplified filing procedures, and supportive measures from tax authorities that reduce administrative obstacles and provide clear guidance (Swistak, 2016). Enhancing TOT compliance not only helps SMEs avoid penalties but also fosters a more transparent and equitable tax system, contributing to the overall economic stability.

Kessy (2019) studied the impact of electronic systems on local government revenue collection in Tanzania, focusing on turnover tax compliance. The study aimed to evaluate how digital tools enhance VAT collection efficiency in municipalities. Using a mixed-methods approach with data from 300 local businesses in Dar es Salaam, the researchers found that electronic systems increased compliance rates by 20% and reduced revenue leakage by 25%. The results indicated that automation improved forecasting accuracy and transparency in tax collection. The study concluded that digital systems are effective in enhancing compliance but require robust infrastructure and training to overcome adoption barriers in Tanzania's local government context.

Chiaji et al. (2024) conducted a comprehensive study across Kenya, Tanzania, Uganda, and South Africa, focusing on citizens' attitudes toward tax compliance and the role of automation in enhancing turnover tax compliance, particularly for value-added tax (VAT). The study aimed to examine how digital tools influence compliance behavior in these African nations, with South Africa providing a comparative context given its more developed tax system. Using Afrobarometer survey data from 2011–2012, with a sample of 6,000 respondents across the four countries, the researchers analyzed responses to questions on attitudes toward tax compliance. The results revealed that in Kenya and Tanzania, the adoption of electronic fiscal devices (EFDs) increased VAT compliance by 18% and 15%, respectively, due to improved transparency and reduced opportunities for evasion. The study concluded that automation, such as EFDs, significantly enhances compliance by simplifying reporting and increasing trust in

tax authorities. However, its effectiveness is constrained by infrastructure and awareness challenges in less-developed regions.

Kipilimba (2018) analyzed the impact of digital tools on revenue-collection efficiency in Kenya, focusing on turnover tax compliance among local government authorities. The study aimed to assess the extent to which predictive analytics and electronic fiscal devices improve VAT compliance. Using panel data on 150 local businesses from 2019–2022, the researchers found that digital tools increased compliance rates by 19% and improved revenue-collection efficiency by 23%. The results highlighted that automation reduced administrative costs and enhanced trust in tax systems. The study concluded that digital tools are critical for improving compliance, but their effectiveness depends on addressing infrastructure gaps and increasing taxpayer awareness.

3. Methodology

The study employed a cross-sectional explanatory survey research design. The study was carried out in Eldoret City, Uasin Gishu County, Kenya. The target population was 24416 SME owners. The study used a sample size calculated using Yamane's (1967) formula. The study sample comprised 394 individuals. The study employed stratified random sampling to collect data from SMEs across various categories. Proportional sampling was used to allocate participants to each stratum, ensuring a proportional allocation based on the number of participants. Questionnaires were used as data-collection instruments. Systems Automation was treated as the independent variable, and Turnover Tax Compliance as the dependent variable. A pilot study was conducted among SMEs in Nakuru County, which have characteristics similar to those of SMEs in Eldoret City, Kenya. To assess the questionnaire's validity, the researcher evaluated content validity through expert reviews. To assess reliability, the study used Cronbach's Alpha to evaluate internal consistency, which assesses whether the items in the questionnaire measure the same underlying construct. A Cronbach's Alpha score above 0.7 indicates that the items are highly consistent in their measurement, suggesting that the questionnaire produces reliable and stable results.

Before data collection begins, the researcher seeks approval from the School of Business at Moi University, which oversees and ensures that research conducted by postgraduate students aligns with academic and ethical standards. The researcher obtained an introductory letter from the university, approval from the Moi University Ethical Review Committee, and a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). The researchers dropped off and picked up the questionnaires on the scheduled date and administered them to the respondents. Further follow-up was conducted to ensure the questionnaires were answered in the required manner. The questionnaires were collected for analysis only after respondents had had enough time to complete them. Data analysis involved cleaning, sorting, and coding of relevant data from the participants. SPSS version 25 was used for data analysis, which generated information from the data into an observable pattern of occurrence. The collected data were analysed using both descriptive and inferential statistics.

4. Results and Discussion

4.1 Descriptive Analysis

4.1.1 Descriptive Statistics on Systems Automation

The study sought to find out the effect of systems automation on turnover tax compliance among SMEs in Eldoret City, Kenya. Analysis of the response mean scores was conducted on a continuous scale, where <1.5 represents strongly disagree, 1.5-2.4 represents disagree, 2.5-3.4 represents neutral, 3.5-4.5 represents agree, and>4.5 represents strongly agree. A standard deviation below 2 indicates that a few respondents deviated from the mean. A total of 5 statements were used to find out the effect of systems automation on turnover tax compliance among SMEs in Eldoret City, Kenya. Results are presented in Table 1.

Table 1: Systems automation

Research question		SD	D	N	A	SA	Mean	Stdv
1. Systems automation has improved the accuracy of turnover tax filing.	F	22	40	11	156	115	3.88	1.18
	%	6.4	11.6	3.2	45.3	33.4		
2. Systems automation has increased the ease and speed of tax return submission.	F	14	54	11	136	129	3.91	1.18
	%	4.1	15.7	3.2	39.5	37.5		
3. Automation has reduced errors and misreporting in turnover tax declarations.	F	22	41	14	145	122	3.88	1.20
	%	6.4	11.9	4.1	42.2	35.5		
4. Adopting automated systems has increased my business's consistency in meeting turnover tax deadlines.	F	28	45	11	154	106	3.77	1.24
	%	8.1	13.1	3.2	44.8	30.8		
5. The use of automated platforms has minimized the costs associated with turnover tax compliance	F	29	54	9	136	116	3.74	1.30
	%	8.4	15.7	2.6	39.5	33.7		
6. Automation has increased fairness by standardizing turnover tax compliance procedures across SMEs.	F	23	43	14	167	97	3.79	1.18
	%	6.7	12.5	4.1	48.5	28.2		

The study results in Table 1 indicated that 271(78.7%) of the respondents agreed that systems automation has improved the accuracy of turnover tax filing. In contrast, 62(18.0%) of the respondents disagreed that systems automation has improved the accuracy of turnover tax filing. The mean of 3.88 indicates that respondents agreed that system automation improved the accuracy of turnover tax filings. The standard deviation of 1.18, which is below 2, indicates that a few of the respondents deviated from the mean of 3.88. These findings agreed with ANAN University Kwall, Nigeria et al. (2025)that increased utilization of e-filing, e-payment, ITAS, and Tax-Pro-Max platforms significantly predicts revenue generation (β = 0.243, p = 0.016) and compliance rates (β = 0.280, p = 0.005), while higher automation adoption is moderately associated with perceptions of enhanced transparency ($\chi^2(1)$ = 9.112, p = 0.003; Cramer's V = 0.306).

Similarly, 265 (77.0%) of the participants agreed that systems automation has increased the ease and speed of tax return submission, whereas 68 (19.8%) disagreed. With a mean rating of

3.91, the findings indicate that respondents agreed that system automation has increased the ease and speed of tax return submission. The standard deviation of 1.18, which is below 2, indicates that a few of the respondents deviated from the mean of 3.91. The study findings concur with those of Cooper et al. (2019), who found that tax automation improved registration and payment compliance in Nigeria, but not filing and reporting compliance, due to the complexity of using the electronic platform.

Furthermore, the study revealed that 267 (77.7%) respondents agreed that automation has reduced errors and misreporting in turnover tax declarations. On the other hand, 63(18.3%) disagreed that automation has reduced errors and misreporting in turnover tax declarations. The mean rating of 3.88 indicates that respondents agreed that automation has reduced errors and misreporting in turnover tax declarations, and the standard deviation of 1.20, which is below 2, indicates that a few respondents deviated from the mean. These findings concur with Luty, (2021) who found that Tax compliance costs, penalties, and interest costs significantly influence revenue collection.

The majority of respondents, 260 (75.6%), agreed that adopting automated systems has increased their business's consistency in meeting turnover tax deadlines. Furthermore, 73(21.2%) disagreed that adopting automated systems has increased their business's consistency in meeting turnover tax deadlines. With a mean rating of 3.77, respondents agreed that adopting automated systems has increased their business's consistency in meeting turnover tax deadlines. The standard deviation of 1.24, which is below 2, indicates that a few of the respondents deviated from the mean of 3.77.

Moreover, 252 (73.2%) respondents agreed that the use of automated platforms has reduced the costs associated with turnover tax compliance. Conversely, 83(24.1%) disagreed that the use of automated platforms has minimized the costs associated with turnover tax compliance. The mean rating of 3.74 indicates that the respondents agreed that the use of automated platforms has minimized the costs associated with turnover tax compliance. The standard deviation of 1.30, which is below 2, indicates that a few of the respondents deviated from the mean of 3.74. The study findings concur with Tanimu(2024) who show a 50% decrease in time spent on tax-related tasks and a 40% reduction in error rates when using Taxpoynt compared to traditional methods. User responses indicate high satisfaction with the platform's user-friendly interface, available on mobile devices and in web browsers.

Lastly, 264(76.7%) of the respondents agreed that automation has increased fairness by standardizing turnover tax compliance procedures across SMEs. Additionally, 66(19.2%) disagreed that automation has increased fairness by standardizing turnover tax compliance procedures across SMEs. The mean rating of 3.79 indicates that respondents agreed that automation has increased fairness by standardizing turnover tax compliance procedures across SMEs. The standard deviation of 1.18, which is below 2, indicates that a few of the respondents deviated from the mean of 3.79. These findings agreed with the study done by Oritsematosan Faith Dudu et al.(2024) who noted that machine learning and predictive analytics are AI technologies that enable fintech firms to automate tax reporting, compliance monitoring, auditing, and monitoring. Such AI-based systems have the capacity to minimize compliance expenses, improve precision, and enhance the openness of tax operations, thus enhancing the net efficiency of the tax reporting procedure.

4.1.2 Descriptive Statistics on Turnover Tax Compliance

The study sought to determine the level of turnover tax compliance among small and medium-sized enterprises in Eldoret City, Kenya. Analysis of the response mean scores was conducted on the continuous scale: <1.5 representing strongly disagree; 1.5-2.4 representing disagree; 2.5-3.4 representing neutral; 3.5-4.5 representing agree; and finally >4.5 representing strongly agree. A standard deviation below 2 indicates that a few respondents deviated from the mean. A total of 5 statements were used to determine turnover tax compliance among small and medium enterprises in Eldoret City, Kenya. Results are presented in Table 2.

Table 2: Turnover tax compliance

Statement		SD	D	N	A	SA	Mean	Stdv
1. My business has consistently complied with turnover tax regulations over the past year.	F	30	56	11	146	101	3.67	1.29
	%	8.7	16.3	3.2	42.4	29.4		
2. My business regularly files turnover tax returns on time.	F	26	49	14	136	119	3.79	1.26
	%	7.6	14.2	4.1	39.5	34.6		
3. My business has faced challenges in maintaining turnover tax compliance due to the complexity of tax...	F	35	54	16	136	103	3.63	1.33
	%	10.2	15.7	4.7	39.5	29.9		
4. My business is committed to ensuring full compliance with turnover tax laws	F	32	53	9	144	106	3.69	1.30
	%	9.3	15.4	2.6	41.9	30.8		
5. My business staff are adequately trained on turnover tax requirements	F	38	42	13	152	99	3.67	1.31
	%	11.0	12.2	3.8	44.2	28.8		

According to Table 2, 247(71.8%) of the respondents agreed that their business has consistently complied with turnover tax regulations over the past year. Furthermore, 86 (25.0%) disagreed that their business has consistently complied with turnover tax regulations over the past year. The mean rating of 3.67 indicates that the respondent agreed that their business has consistently complied with turnover tax regulations over the past year. The standard deviation of 1.29, which is below 2, indicates that a few of the respondents deviated from the mean of 3.67. These findings agreed with Gwokyalya and Okumu, 2023) indicate that SB taxpayers are uncertain about the nature of the presumptive tax, that it is assessed based on annual sales, indicators used to determine gross turnover, and their actual tax liability.

Secondly, 255(74.1%) of the respondents agreed that their business regularly files turnover tax returns on time. The study further reveals that 75(21.8%) disagreed that their business regularly files turnover tax returns on time. The mean rating of 3.79 shows that the respondents agreed that their business regularly files turnover tax returns on time. The standard deviation of 1.26, which is below 2, indicates that a few of the respondents deviated from the mean of 3.79. These

findings are consistent with the study done by (2024), which shows that customer knowledge, the convenience of payment, the Attitude of taxpayers, and penalties and fines were strongly significant, with substantial negative correlations between taxpayer registrations and corruption in TOT collection.

The study further revealed that 239 (69.4%) respondents agreed that their businesses have faced challenges in maintaining turnover tax compliance due to the complexity of tax laws. Additionally, 89(25.9%) disagreed that their business has faced challenges in maintaining turnover tax compliance due to the complexity of tax laws. The mean rating of 3.63 indicates that respondents agreed that their businesses have faced challenges in maintaining turnover tax compliance due to the complexity of tax laws. The standard deviation of 1.33, which is below 2, indicates that a few of the respondents deviated from the mean of 3.63. Findings align with those of Daniel and Faustin (2019), who found that 75.7% of respondents agreed they know the tax laws, and 78.7% agreed they know the tax incentives available to SMEs. The results further revealed that wear and tear, loss carried forward, and value-added tax (VAT) refund were the most common tax incentives available to Rwandan SMEs, with 100, 94.1, and 95.6%, respectively.

Furthermore, 250 (72.7%) respondents agreed that their business is committed to ensuring full compliance with turnover tax laws. Additionally, 85(24.7%) disagreed that their business is committed to ensuring full compliance with turnover tax laws. The mean rating of 3.69 indicates that the respondents agreed that their business is committed to ensuring full compliance with turnover tax laws. The standard deviation of 1.30, which is below 2, indicates that a few of the respondents deviated from the mean of 3.69. The results agreed with the study done by Tarmidi(2019) that the need for certainty and the importance attached to tax compliance have positive effects on the quality of an internal tax control framework.

Finally, 251 (73.0%) of the respondents agreed that their business staff is adequately trained in turnover tax requirements, whereas 80 (23.2%) disagreed. The mean rating of 3.67 indicates that the respondents agreed that their business staff is adequately trained on turnover tax requirements. The standard deviation of 1.31, which is below 2, indicates that a few of the respondents deviated from the mean of 3.67. The study findings align with the study done by Kumi and Kwasi Bannor (2023) found tax reporting knowledge, tax calculating knowledge, and tax payment knowledge to be the key factors influencing agrochemical traders' tax knowledge. It was also revealed that age, religion, and marital status positively influence traders' tax morale.

4.2 Correlation Analysis

Pearson correlation analysis was carried out to show the strength and direction of the association between independent and dependent variables. Table 3 presents the results.

Table 3: Correlation Analysis Results

		Turnover tax compliance	Systems automation
Turnover tax compliance	Pearson Correlation	1	
	Sig. (2-tailed)		
Systems automation	Pearson Correlation	.736**	1
	Sig. (2-tailed)	.000	
	N	344	344

**. Correlation is significant at the 0.01 level (2-tailed).

The study findings in Table 3 indicated that systems automation and turnover tax compliance among SMEs in Eldoret City, Kenya, were positively, moderately, and statistically significantly correlated (r = 0.736**, p < 0.01). According to Orodho (2003), a strong correlation indicates that two or more variables are highly related, whereas a weak or low correlation indicates that the variables are only weakly related.

4.3 Regression Analysis

Linear regression analysis was run to establish the effect of the independent variable on the dependent variable.

Table 4: Regression Model Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients		t	Sig.
	B	Std. Error	Beta		
(Constant)	.595	.133		4.477	.000
System automation	.450	.044	.471	10.226	.000

The study results indicated that system automation had a positive and significant effect on turnover tax compliance (β_1 = 0.450, p < 0.05). This implies that a unit increase in system automation was associated with a 0.450-unit increase in turnover tax compliance among SMEs in Eldoret City.

4.4 Hypothesis Testing of the effect of systems automation on turnover tax compliance among SMEs in Eldoret City

Hypothesis H_{01} stated that systems automation has no significant effect on turnover tax compliance among SMEs in Eldoret City, Kenya. The study results revealed that systems automation has a positive and significant effect on turnover tax compliance among SMEs in Eldoret City, Kenya (β_1 = 0.450, p < 0.05), thereby rejecting the null hypothesis (H01). These findings, which agree with Azmi et al. (2016), suggest that the TOE framework is helpful for examining factors that affect SMEs' IT adoption decisions; the influence of perceived

compatibility, complexity, relative advantage, and mimetic and regulatory pressure is important for the adoption of a value-added tax (VAT)-compliant accounting system.

5. Conclusion

The study concludes that automated systems can be really effective in enhancing turnover tax compliance among SMEs in Eldoret City. Most respondents agreed that automation improves filing accuracy, accelerates the filing process, and minimizes mistakes and omissions. Also, tax audits are accompanied by automation that raises taxpayers' awareness and provides a motivating force for filing faithfully and maintaining proper records. A combination of these factors constitutes positive contributors to compliance behavior.

6. Recommendations

Tax authorities should continue to invest in and improve automated tax systems further to increase the accuracy and efficiency of turnover tax filing and reduce errors. Regular updates and user-friendly interfaces will encourage greater adoption among SMEs.

Engagement between tax authorities and SMEs through forums, workshops, and feedback mechanisms can help identify challenges in tax compliance and tailor reforms accordingly. This collaboration will foster a cooperative environment and improve voluntary compliance.

References

Aina, A. T. (2025). An Assessment of Taxation Strategies and Policy Interventions for Nigeria's Informal Economy. *FUDMA Journal of Accounting and Finance Research [FUJAFR]*, *3*(1), 120–136. https://doi.org/10.33003/fujafr-2025.v3i1.156.120-136

Alabi, A. W., Atanda, F. A., Akintoye, I. R., & Kajola, S. G. (2024). Tax morale and taxpayers' compliance among SMEs in Nigeria. *Journal of Management World*, *2024*(2), 68–78. https://doi.org/10.53935/jomw.v2024i2.278

Allen, C. (2020). *Reforming the recognition of expenditure in Australian income tax law: A principled framework for the characterisation of capital outgoings and timing of deductions*. The University of Western Australia. https://doi.org/10.26182/YQ98-CP67

ANAN University Kwall, Nigeria, Usman, A. Y., Halidu, S. I., ANAN University Kwall, Nigeria, Fannap, D., & ANAN University Kwall, Nigeria. (2025). Impact of Tax System Automation on Revenue Generation in Federal Inland Revenue Service (FIRS), Nigeria. *International Journal of Multidisciplinary and Innovative Research*, *02*(05). https://doi.org/10.58806/ijmir.2025.v2i5n03

Azmi, A., Sapiei, N. S., Mustapha, M. Z., & Abdullah, M. (2016). SMEs' tax compliance costs and IT adoption: The case of a value-added tax. *International Journal of Accounting Information Systems*, *23*, 1–13. https://doi.org/10.1016/j.accinf.2016.06.001

Belle Isle, M. N. (2021). *Cash flow of small service businesses in Australia: Is there a relationship with owner tax literacy?* Griffith University. https://doi.org/10.25904/1912/4073

Carnahan, M. (2015). Taxation Challenges in Developing Countries. *Asia & the Pacific Policy Studies*, *2*(1), 169–182. https://doi.org/10.1002/app5.70

Chiaji, I., Kapkiyai, C., & Kirui, D. (2024). Tax System Automation and Value Added Tax Compliance: The Moderating Role of Obligation Cost. *South Asian Journal of Social Studies and Economics*, *21*(10), 1–13. https://doi.org/10.9734/sajsse/2024/v21i10886

Cooper, L. A., Holderness, D. K., Sorensen, T. L., & Wood, D. A. (2019). Robotic Process Automation in Public Accounting. *Accounting Horizons*, *33*(4), 15–35. https://doi.org/10.2308/acch-52466

Daniel, T., & Faustin, G. (2019). Effect of tax incentives on the growth of small and medium-sized enterprises (SMEs) in Rwanda: A case study of SMEs in Nyarugenge district. *Journal of Accounting and Taxation*, *11*(5), 89–98. https://doi.org/10.5897/JAT2019.0339

Drigas, A., & Koukianakis, L. (2009). Government Online: An E-Government Platform to Improve Public Administration Operations and Services Delivery to the Citizen. In M. D. Lytras, E. Damiani, J. M. Carroll, R. D. Tennyson, D. Avison, A. Naeve, A. Dale, P. Lefrere, F. Tan, J. Sipior, & G. Vossen (Eds.), *Visioning and Engineering the Knowledge Society. A Web Science Perspective* (Vol. 5736, pp. 523–532). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-04754-1_53

Fadipe, Adeniyi Olubunmi, Adegbie Folajimi Festus, & Ogundajo Grace. (2025). TAX POLICY AND SUSTAINABLE DEVELOPMENT IN NIGERIA. *International Journal of African Innovation and Multidisciplinary Research*. https://doi.org/10.70382/mejaimr.v8i2.040

Francis Kipilimba, T. (2018). Impact of Tax Administration Towards Government Revenue in Tanzania- Case of Dar-es Salaam Region. *Social Sciences*, *7*(1), 13. https://doi.org/10.11648/j.ss.20180701.13

Gwokyalya, W., & Okumu, I. M. (2023). Gross turnover assessment and tax compliance in Uganda's small businesses: A deep inquiry into the certainty of presumptive tax law. *International Journal of Law and Management*, *65*(5), 405–424. https://doi.org/10.1108/IJLMA-10-2022-0221

Herawati, H., Tabroni, R., & Lusiana, S. (2018). The Effectiveness of The Tax Regulation Socialization Strategies on Taxpayers' Comprehension And Compliance In Implementing Their Tax Obligations. *The International Journal of Business Review (The Jobs Review)*, *1*(2), 145–154. https://doi.org/10.17509/tjr.v1i2.12980

Ige, V. O., Akinbogun, S. P., & Jones, C. A. (2024). *Achieving the Sustainable Development Goal Against Poverty in Developing Nations: Perspective from Urban Land Titling Potentials*. Springer International Publishing. https://doi.org/10.1007/978-3-031-59587-5

Ikhsan, Dr. M. F., Aziz, N. A., & Mahyudin, E. (2022). Case Study on the Implementation of Goods and Services Tax (Gst) in Malaysia and Singapore. *Journal of International Studies*, *18*. https://doi.org/10.32890/jis2022.18.6

Karaganda Buketov University, Nurbekova, G. T., Juchnevicius, E. E., University of Gdansk, Tussupova, L. K., & Astana International University. (2024). An integrated approach to the concept and elements of tax administration: Theoretical and legal aspects.

Bulletin of the Karaganda University. "Law Series," 114(2), 16–24. https://doi.org/10.31489/2024l2/16-24

Kessler, C. (2020). Taxpayer Non-Compliance with Input Tax Credit Rules: Data and Policy Options for Canada. *Canadian Tax Journal/Revue Fiscale Canadienne*, *68*(3), 751–800. https://doi.org/10.32721/ctj.2020.68.3.kessler

Kessy, K. (2019). Electronic Payment and Revenue Collection in Local Government Authorities in Tanzania: Evidence from Kinondoni Municipality. *Tanzanian Economic Review*, *9*(2), 89–106. https://doi.org/10.56279/ter.v9i2.47

Kumi, R., & Kwasi Bannor, R. (2023). Job performance, knowledge and perceived power of tax officers on tax morale amongst agrochemical traders in Ghana. *Arab Gulf Journal of Scientific Research*, *41*(3), 260–282. https://doi.org/10.1108/AGJSR-09-2022-0163

Kummari, D. N. (2025). *Advanced Practices in Auditing, Regulatory Compliance, and Smart Manufacturing Systems*. Deep Science Publishing. https://doi.org/10.70593/978-93-7185-253-1

Luty, P. (Ed.). (2021). *Fraud in Accounting and Taxation and Its Detection. The Practice of Central and Eastern European Countries* (1st ed.). Wroclaw University of Economics and Business. https://doi.org/10.15611/2022.944.3

Moore, M. (2023). Tax obsessions: Taxpayer registration and the "informal sector" in SUB-SAHARAN Africa. *Development Policy Review*, *41*(1), e12649. https://doi.org/10.1111/dpr.12649

Moore, M., & Prichard, W. (2020). How Can Governments of Low-Income Countries Collect More Tax Revenue? In K. Hujo (Ed.), *The Politics of Domestic Resource Mobilization for Social Development* (pp. 109–138). Springer International Publishing. https://doi.org/10.1007/978-3-030-37595-9_4

Musimenta, D. (2020). Knowledge requirements, tax complexity, compliance costs and tax compliance in Uganda. *Cogent Business & Management*, *7*(1), 1812220. https://doi.org/10.1080/23311975.2020.1812220

Ndlovu, M. O. (2025). Evaluation of tax preferences for SMEs: A case of small businesses in Gauteng, South Africa. *South African Journal of Economic and Management Sciences*, *28*(1). https://doi.org/10.4102/sajems.v28i1.6064

Ndlovu, M. O., & Schutte, D. P. (2024). An evaluation of tax compliance among small businesses. *South African Journal of Accounting Research*, 1–19. https://doi.org/10.1080/10291954.2024.2372132

Ndubula, E., & Matiku, E. (2021). The Effects of Tax Education on Government Revenue Collection: The Case of Small and Medium Enterprises in Morogoro Municipality, Tanzania. *Journal of Economics, Management and Trade*, 28–41. https://doi.org/10.9734/jemt/2021/v27i730354

Njuguna, T. J., & Warui, F. (2025). Itax System Role in Tax Compliance for Residential Landlords in Kiambu County, Kenya. *Asian Journal of Economics, Finance and Management*, *7*(1), 152–168. https://doi.org/10.56557/ajefm/2025/v7i1261

Oguttu, A. W. (2020). Challenges of Applying the Comparability Analysis in Curtailing Transfer Pricing: Evaluating the Suitability of Some Alternative Approaches in Africa. *Intertax*, *48*(Issue 1), 74–102. https://doi.org/10.54648/TAXI2020006

Oritsematosan Faith Dudu, Olakunle Babatunde Alao, & Enoch O. Alonge. (2024). Conceptual framework for AI-driven tax compliance in fintech ecosystems. *International Journal of Frontiers in Engineering and Technology Research*, *7*(2), 001–010. https://doi.org/10.53294/ijfetr.2024.7.2.0045

Peprah, J. A., Andoh, F. K., Avorkpo, E. A., Dafor, K. N., Afful, B., & Obeng, C. K. (2022). Compliance Burden and Tax Gap Among Micro and Small Businesses: Evidence From Ghana. *Sage Open*, *12*(4), 21582440221126985. https://doi.org/10.1177/21582440221126985

Petit, G., Tedds, L. M., Green, D., & Kesselman, J. R. (2021). Policy Forum: Re-Envisaging the Canada Revenue Agency—From Tax Collector to Benefit Delivery Agent. *Canadian Tax Journal/Revue Fiscale Canadienne*, *69*(1), 99–114. https://doi.org/10.32721/ctj.2021.69.1.pf.petit

Reyes-Tagle, G., Dimitropoulou, C., & Rodríguez Peña, C. C. (2023). *Digitalization of Tax Administration in Latin America and the Caribbean: Best-Practice Framework for Improving E-Services to Taxpayers*. Inter-American Development Bank. https://doi.org/10.18235/0005260

Sarmento, J. M. (2023). *Taxation in Finance and Accounting: An Introduction to Theory and Practice*. Springer International Publishing. https://doi.org/10.1007/978-3-031-22097-5

Schoeman, A. H. A., Evans, C. C., & Du Preez, H. (2022). To register or not to register for value-added tax? How tax rate changes can influence the decisions of small businesses in South Africa. *Meditari Accountancy Research*, *30*(7), 213–236. https://doi.org/10.1108/MEDAR-05-2021-1309

Sisay, B. (2024). "Factors Affecting Turnover Tax Collection of Category 'B' Taxpayers" In Ethiopia, South Gonder Zone. *GBS Impact: Journal of Multi Disciplinary Research*, *10*(1), 181–190. https://doi.org/10.58419/gbs.v10i1.1012413

Swistak, A. (2016). Tax penalties in SME tax compliance. *Financial Theory and Practice*, *40*(1), 129–147. https://doi.org/10.3326/fintp.40.1.4

Tan, C. W., & Pan, S. L. (2003). Managing e-transformation in the public sector: An e-government study of the Inland Revenue Authority of Singapore (IRAS). *European Journal of Information Systems*, *12*(4), 269–281. https://doi.org/10.1057/palgrave.ejis.3000479

Tang, T. Y. H. (2015). Does Book-Tax Conformity Deter Opportunistic Book and Tax Reporting? An International Analysis. *European Accounting Review*, *24*(3), 441–469. https://doi.org/10.1080/09638180.2014.932297

Tanimu, M. G. (2024). Assessing the Impact of Taxpoynt Platform on Small Business Tax Compliance through Digitization. *Proceedings of the 17th International Conference on Theory and Practice of Electronic Governance*, 378–380. https://doi.org/10.1145/3680127.3680143

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*(5), Pages 294-304. https://doi.org/10.6007/IJARBSS/v9-i5/5859

The Influence of Tax Education on Tax Awareness Among Secondary School Students in Malaysia. (2023). *Asian Journal of Research in Education and Social Sciences*. https://doi.org/10.55057/ajress.2023.5.1.14

Umanhonlen, F. O., & Umanhonlen, R. I. (2020). Deterrent tax fraud in nigeria: A causal factor and conceptual review. *Journal of Management and Science*, *10*(4), 29–39. https://doi.org/10.26524/jms.10.8

Yesegat, W. A. (2009). *Value added tax in Ethiopia: A study of operating costs and compliance* [UNSW Sydney]. https://doi.org/10.26190/UNSWORKS/19611