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Moderating effect of taxpayer perception on the relationship between electronic taxpayer education and turnover tax compliance among SMEs in Eldoret town, Uasin Gishu County

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Abstract

Taxpayer education has not best added extraordinary impact on big Small and Medium Enterprises (SMEs) marketplace performances but has also advanced well timed and coherent turnover tax compliance. Previous research has indicated that the turnover tax compliance among the SMEs have remained low. That is attributed to lack of tax compliance by SMEs via tax evasion, moving or briefly shutting down businesses. The study sought to assess the impact of electronic taxpayer education on turnover tax compliance amongst small and medium enterprises in Eldoret Town, Uasin Gishu County. The study was supported via monetary deterrence theory. Explanatory studies design was used focused on 68712 registered small and medium enterprises inside Eldoret town. Systematic sampling changed into used to pick out a sample of 397 SMEs. Questionnaires were used as the main facts series tool. Statistical Program for social sciences software was used to investigate quantitative facts both descriptively and inferentially. Findings from the study indicated that electronic taxpayer education had positive and significant effect on TOTC (Turnover Tax Compliance) of SMEs in Eldoret town ($\beta_1 = 0.600$, p = 0.000<0.05). With a positive and significant effect of ($\beta_4 = 0.422$, p=0.003<0.05), taxpayer perception moderates turnover tax compliance of SMEs in Eldoret town. The study concludes that electronic taxpayer education has a significant effect turnover tax compliance of SMEs in Eldoret town. The study therefore recommends that policy makers should focus on providing tax education programs for SMEs. This is to address the specific needs and challenges faced by SMEs in complying with tax regulations.

1. Introduction

1.1. Taxpayer Perception

Taxpayer perception refers to the volume to which matters apart from self-interest, along with social norms and moral reasoning affect taxpayers' attitudes (Hamid, Ismail, Yunus, Jali, & Rosly, 2022). Taxpayers considered paying tax as a burden due to the fact that it's going to reduce their earnings and they also opined that introducing a brand-new digital tax isn't always compulsory in the intervening time. Further, taxpayers had been much less knowledgeable approximately tax control and offerings furnished by means of the tax authority. In line with Amin and Mispa (2020) tax practitioners renowned that the complexity of taxation is making compliance in particular difficult to reap because of taxpayers' perception. Also, tax perceptions has a tendency to lead to an increase in compliance; presumably because to study taxes also manner to learn about their necessity in society or due to the fact this precise knowledge is a more deterrent. The purpose of taxpayers to tax evasion is generally as a result of the perception that taxes are a burden that might reduce one's economic capability. In line with Yong and Freudenberg (2020) notwithstanding the financial significance of small and medium companies (SMEs), little is thought approximately their tax compliance perceptions, which may also have an impact on their compliance conduct. SMEs' perceptions of tax compliance are multifaceted and consist of felony elements, compliance charges, monetary concerns and perceptions of "others".

Low tax compliance is first-rate trouble for decision-makers and bounds the potential of the presidency to raise non-public profits tax for development. Earlier research suggests that the perception of tax fairness is one of the non-monetary factors that impact private profit tax compliance. Further, tax compliance literature, additionally well-known, shows that the affiliation between the perceived kinds of tax equity and tax compliance ranges with tax jurisdiction. However, the relationship between belief in tax fairness and personal earnings tax compliance has not been investigated in Nigeria, to the understanding of the researcher (Gberegbe & Umoren, 2017).

1.2. Electronic Taxpayer Education

Electronic taxpayer education is the usage of digital means or media to deliver instructional information concerning taxation offerings (Mathenge & Abdul, 2021). This medium of taxpayer education permits the tax government to maximise taxpayers' earnings which culminates into improved revenue for national development. TAX Interactive (TAXi) as an internet platform this is majorly adopted through tax authorities to teach taxpayers approximately their rights and duties (Amaning, Anim, Kyere, Kwakye, & Abina, 2021). Electronic taxpayer education has to continue to be abreast with the ever-rising dynamism of business environment. Electronic filing gadget influences turnover tax compliance. It additionally will increase ease of doing commercial enterprise (Obert, Rodgers, Tendai, & Desderio, 2018).

The use of digital media in growing tax recognition compliance has been related to audit performance, enhance policy evaluation potential and improve performance of tax collection (Amaning et al., 2021). Electronic media broadcast may additionally take the form of tv, internet, radio, fax, CD-ROM and DVD or any other media this is powered by using strength and supported by way of records verbal exchange era. Digital era expertise on taxation is paramount, era has been evolving with time rendering the antique generation obsolete and there's want for digital taxpayer training channels to cope up with new generation (Gitonga & Memba, 2018).

Use of modern-day era in digital media to enhance performance is less complicated and handy. Taxpayers might be required to have basic Information and Communication Technologies (ICT) competencies while the use of these digital media educations and also submitting tax electronically typically known as on-line filing of returns. Citizens' perception on ICT and electronic tax structures is essential in tax enforcement. Using digital media means that a systemic view of taxpayers would promote enforcement by means of the usage of complex systemic strategies (Oktaviani, Wahono, & Srimindarti, 2019).

1.3. Turnover Tax Compliance

Turnover tax compliance refers to the extent of adherence by a taxpayer to their usa's tax regulations, which includes reporting their profits, submitting tax returns, and paying the right taxes on time. It entails timely filing, disclosing, and paying of any owed taxes (Le, Tuyet, Hanh, & Do, 2020). Poor turnover tax compliance poses a substantial problem. Turnover tax compliance conduct has been a difficulty to government because evasion impacts negatively on the gathering of taxes and the ability of government to recognize their targets of thriving economic system and society. The turnover tax compliance decision of small business proprietors no longer varies so much with one of the people (Aondo, 2018).

Tax compliance exists in three paperwork specifically devoted compliance, capitulated compliance, and resourceful compliance. The dedicated compliance method maintains that tax compliance involves enjoyable one's tax obligations in an ethical and conscientious manner. Innovative compliance is the practice of heading off taxes by means of utilizing legal loopholes, which well lowers tax payments. The act of tax evasion through using legitimate loopholes in the end outcomes inside the right minimization of tax liabilities. Creative compliance is the act of fending off taxes via criminal loopholes, which has the effect of correctly

reducing tax liabilities, in place of capitulative compliance, that is the performance of tax responsibilities with some resistance beneath regulatory duress (Azaka & Balogun, 2022).

Globally, electronic taxpayer education has contributed to the massive tax compliance of SMEs. Electronic taxpayer education, financial constraints and auditing have an effect on turnover tax compliance in Hawassa (Geremew, 2017). Throughout Africa, SMEs are struggling with tax compliance due to lack of sufficient electronic taxpayer education. This is attributed to lack of know-how and training as far as tax compliance is concerned (Mascagni & Nell, 2022). Domestically, turnover tax compliance in Kenya, skilled massive fluctuations when measured as a ratio of real tax percentage of gross home product (Wanjiru, 2020). The turnover tax was delivered in Kenya with the intention to streamline the submitting and charge processes, including cellular telephone payments, shorter submitting and price closing dates, and a tax price of 1% this is decrease than different earnings tax costs. But, SMES were observed to be more likely to have interaction in tax evasion even after the implementation of turnover tax.

Non-compliance is a severe problem for both developed and developing nations. With the intention to foster tax compliance, policymakers are therefore operating to understand the factors that allow individuals and corporations to pay tax (Al-Maghrebi, Sapiei, & Abdullah, 2022). While tax compliance is an income to the government, it is a fee to the taxpayer. For this reason, the taxpayer desires to reduce cost and maximize revenue, at the same time as the authorities desire to maximize sales thru more desirable turnover tax compliance. To reach a commonplace ground between the taxman and the taxpayer, the taxman wishes to institute measures with the intention to simplify turnover tax compliance for the taxpayer. Know-how of tax is essential given that while an individual is aware of what is meant to be performed at any time, he/she can constantly comply (Kirchler, Kogler, & Muehlbacher, 2014).

In Kenya, SME digital taxpayer training has step by step remained low, even after using sanctions like consequences, Armed monitoring, recurring audits, and fines and so on, however not tons development in tax sales collections (Karanja, 2018). Records has proven that there has continually been a reluctance to pay tax by means of SMEs. Again, statistical proof has proven that the contribution of earnings taxes to the government's total sales via SMEs remained always low. Over the past 40 years, turnover tax compliance in Kenya, experienced big fluctuations whilst measured as a ratio of actual tax share of gross domestic product (Wanjiru, 2020). In addition, maximum SMEs do no longer pay the taxes and tax evasion amongst SMEs remains some distance above the floor, with a tax hole of about 35% and 33.1% in 2018 and 2019 respectively. In spite of the abundance of literature on the elements influencing tax compliance, there may be no consensus amongst tax researchers regarding electronic taxpayer education. Some research offer a clean explanation of the concept of Electronic taxpayer education and its software, whilst others, notably, do not (Njoka, 2020).

1.4. Objective of Study
a) Effect of electronic taxpayer education on turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County.
b) Moderating effect of taxpayer perception on the relationship between electronic taxpayer education and turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County

1.5. Research Hypotheses
a) $H0_1$: *Electronic taxpayer education has no statistical significant effect on turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County.*
b) $H0_2$: *Taxpayer perception has no significant moderating effect on the relationship between electronic taxpayer education and turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County*

2. Literature Review
2.1. Taxpayer Perception
Taxpayer perception has the capacity to grow taxpayer compliance; the government desires to make forts, which includes the authorities needing to grow. Micro, small, and medium firms' know-how of tax rules via various education and socialization programs such as seminars, education, and social media (Nafaril & Ramadhan, 2024). Tax collection in many countries is characterized by tax evasion and failure to report returns on time (Mwesigye & Kijjambu, 2024).

Widuri and Irawan (2019) in Indonesia revealed that perceptions of tax justice had a pleasing and great impact on tax compliance. Damayanti, Sutrisno, Subekti, and Baridwan (2015) determined that the purpose of complying amongst taxpayers in Indonesia is inspired through the perception of taxpayers in the direction of the government. Ogungbade, Enitan, and Adekoya (2021) stated that the effect of taxpayers' perceptions on tax evasion in Nigeria become now not properly sized. Olusegun (2021) in Nigeria found out that taxpayers' perceptions of the authorities' fairness, trustworthiness in tax income responsibility, and equitable redistribution of tax income have a first-rate, impact on tax compliance. Bijiga (2020) found out that tax evasion stemmed from taxpayer perceptions of tax evasion as a way of life and a minor crime in Oromia, Ethiopia. Nangayi (2013) found a vulnerable, superb, and insignificant dating amongst tax belief and tax

compliance amongst taxpayers in Kampala Capital metropolis Authority (KCCA)—essential division, Uganda. None of the above research has furnished evidence for the mediating position of taxpayer notion within the dating among tax schooling and tax compliance.

Nonetheless, the mediating characteristic of taxpayer belief in the dating among tax schooling and tax compliance has been discussed in some studies. Pui, Moorthy, and Choo Keng Soon (2017) in Malaysia revealed that taxpayer perceptions are enhanced through schooling and recognition, which improves tax compliance, however the mediation impact isn't always examined on this impact. But, Azmi, Zainuddin, Mustapha, and Nawi (2016) in Malaysia determined that tax know-how does not affect tax compliance without delay, but now not at once via the function of tax fairness perceptions. But, none of that research has been statistically tested for the importance of the mediating impact of taxpayer notion in the relationship among tax schooling and profit tax submitting compliance. Studies inside the Ugandan context is in large element restricted, and no take a look at has looked at small taxpayers in Mbarara city, especially.

In step with Abd Hamid et al. (2019) perceived factors play a pivotal position in shaping tax compliance behavior, with huge elements encompassing the notion of governmental obligation, which falls under classes like social norms, public expenditure, perceived equity of the tax system, and moral problems. Extensively tax attitudes are formed by means of their perceptions of the utilization of collected budgets and, correspondingly, their consciousness (Kirchler et al., 2014). Dimensions of perceived factors influencing the extent of tax compliance embody the perception in tax complexity, which emerges from the developing intricacy of tax policies (Ongeri, 2023).

2.2. Electronic Taxpayer Education

Electronic taxpayer education plays a critical role in improving SMEs' tax compliance as most of them can get admission to tax statistics electronically of their consolation zones. The education of taxpayers is no longer just the duty of tax government. The necessity of operating effectively with different stakeholders including groups, trade organizations, and non-governmental businesses is highlighted with the aid of several of the efforts described in this document.

Pere (2019) investigates the digital form effect on tax compliance via Nairobi County's small taxpayers. This look at employed a layout that was descriptive. The paper focused on roughly 839,560 small taxpayers (workers and small-scale investors) in Nairobi's four tax districts. They have a look at hired chance and stratified random sampling strategies. The researcher hired a semi-structured questionnaire to acquire initial data. It was achieved through following a secondary facts-accumulating agenda. To ascertain the link between the predicated parameters and the response parameters, descriptive and inferential statistics, as well as correlation, have been used to study the SPSS (Statistical Package for Social Scientists) data. Some small-business taxpayers take the digital communique path in accordance with the research. A fantastic linear affiliation of digital verbal exchange channels and tax compliances among Nairobi County's small taxpayers turned into showed via regression analyses. The consequences showed that establishing digital verbal exchange channels expenses loads of cash to adopt and preserve, however government organizations should place forth a aware choice due to the fact this is one of the matters that enables Nairobi County's small taxpayers comply with the law greater frequently. Small taxpayers in Nairobi's four tax stations and districts are the have a look at's targeted respondents, together with the owners and accountants of producing SMEs.

Hanapi (2022) assesses the outcomes of tax training initiatives on Malaysian instructors' tax compliance. This observer's particular goal is to forecast tax training's influences on tax compliance and the importance of tax training amongst Malaysian instructors. To provide an explanation for the hyperlink among the unbiased and structured variables, the Compliance idea framework was applied. The association between tax education and tax compliance turned into tested the usage of a quantitative research method. Statistics from Malaysian taxpayers which can be instructors in Kelantan was accrued thru a questionnaire. No matter the truth that tax cognizance and training are important for tax compliance, the substantial majority of respondents are uncertain approximately it. To encourage taxpayers to boost their tax compliance in the future, the Inland Revenue Board Malaysia (IRBM) ought to create extra outreach projects concerning the importance of tax information. The study was carried out in Malaysia, a country with a wonderful socioeconomic climate than Kenya. The have a look at utilized the compliance concept structure, while the inspiration of this study was on stakeholder principle, tax planning idea, and idea of deliberate behaviour.

2.3. Turnover Tax Compliance

A study done by Amaning et al. (2021) focused on tax compliance amongst Ghanaian SMEs. Findings discovered the over the current years, there was a giant disconnect among SMEs taxpayer education and turnover tax compliance. This displays a disjointed and less than streamlined turnover tax compliance via SMEs. Past research had been accomplished on taxpayer training and turnover tax compliance; however little is understood about the moderating effect of taxpayer perception on taxpayer training and turnover tax compliance.

Consistent with Bett (2020) tax understanding enhances turnover tax compliance; it also assists tax authority in designing tax training programmes and developing the information of taxpayers' behaviours. Turnover tax compliance conduct has been a depend subject to authorities because evasion affects negatively

the gathering of taxes and the capacity of government to recognize their targets of thriving financial system and society. Terrible turnover tax compliance poses an enormous problem. The turnover tax compliance decision of small enterprise owners does not fluctuate so much with one of the people.

In a study by Gitaru (2017) turnover tax compliance is better the usage of workshop and seminar forums, wherein sensitization packages consisting of avenue suggests organized by using tax officials have an encounter with taxpayers at exact places and periods. Tetteh (2019) studied the effects of tax focus and tax expertise on turnover tax compliance in Ghana the use of descriptive research design. The print media programmes decorate turnover tax compliance. Carrying out effective media crusades on tv, show of tax information on magazine and industrial clients on newspaper will improve tax attention. Constant use of print media creates more cognizance, reduction in tax evasion, loyalty and knowledge. Adekoya (2019) assessed electronic taxpayer education and turnover tax compliance in the Lagos kingdom employing cross sectional. The have a look at determined out that the use of print media is so flexible in that it could use all viable languages inclusive of vernacular in developing attention. Print media can offer a platform for both formal and informal training in creating turnover tax compliance focus. The studies are confined to Ghana and Lagos.

Cyan, Koumpias, and Martinez-Vazquez (2017) studied the effects of print media campaigns on person attitudes towards turnover tax compliance; quasi-experimental evidence from survey statistics in Pakistan using targeted organization discussion research layout. The study located out that there may be progressed tax morale for folks who are uncovered to print media in Pakistan. Hassan, Palil, Ramli, and Maelah (2022) studied methods of enhancing turnover tax compliance via tax education - Malaysian enjoy with the aid of employing descriptive research layout. The study determined out that print media is the simplest channel tax authority uses in advertising their merchandise and growing consciousness on turnover tax compliance. The studies fail to seize SMEs tax compliance.

2.4. Theoretical Review
2.4.1. Economic Deterrence Theory
Economic deterrence theory turned into postulated by means of Becker (1968). the principle is premised on punishment of taxpayers' offenders, and it holds out on a chance that each time there's a dedication of wrong by way of the taxpayer and can unharness the punishment. The idea is based on the idea that taxpayer is moral profit seeking and their calculations are based totally on expenses and possibilities. Taxpayer is predicted to control their very own affairs cognizant of opportunity of being caught towards the cost of offence. This assumption means that a rational taxpayer will handiest steer clear of tax while the cost of offending is less than the actual taxes to be remitted.

The implication of this precept is that wherein there are low audit possibilities and coffee fines, the pattern for evasion turned into better, while if there's a difficult law, few humans might also steer clear of taxes. Focused on this principle, the version recommends stricter auditing and strict sanctions for tax evaders as a policy for lowering non-compliance. But, in describing taxpayer enforcement, the hypothesis has also been criticized as no longer sensible, as it assumes a widespread sizeable non-compliance past what is presently obtainable (Fjeldstad & Moore, 2019).

This concept is relevant to this study in the essence that the authorities need to deter SMEs tax non-compliant with heavy fines and intense penalties, institute chargeable hobby charges on tax defaulters. Furthermore, audit and fines should be more suitable with the intention to lessen non-compliance. This will go a protracted manner in motivating SMEs to document their tax returns inside a stipulated time. The penalties on tax evasion need to outweigh the blessings that is probably derived from evasion. Grievance of the idea questionable theoretical assumptions, unreliable facts, and the incapacity to solve some of the methodological troubles common to deterrence studies.

3. Research Methodology
Explanatory research design was adopted via the study. Explanatory studies seek to provide an explanation for why matters occur and anticipate what will show up inside the future (Cresswell, Cunningham-Burley, & Sheikh, 2018). Study populace was 68712 registered within Eldoret town. Systematic sampling method was utilized in deciding on study sample size of 397. Questionnaire turned into used as the primary research device. In ascertaining reliability of the questionnaires, a pilot test was carried out via issuing 39 (10% of the sample populace) to SME proprietors in Bomet County. Each construct validity and content validity had been executed with the aid of the study. Content validity changed into accomplished with the aid of the supervisors while construct validity was assessed the use of component analysis. To test the reliability of the measures within the questionnaire, the look at employed Cronbach's alpha coefficient. Reliability check was undertaken on 10 percentage of the sample size. A hierarchical regression version was additionally followed through the study. In step with moral considerations, knowledgeable consent was obtained from all the ones taking part within the study.

4. Results and Discussions

4.1. Response Rate

The range of questionnaires that had been administered was 397 and a total of 320 questionnaires have been properly filled and again but a number of the respondents returned the questionnaires half-stuffed even as others did now not return them, absolutely regardless of quite a few comply with up.
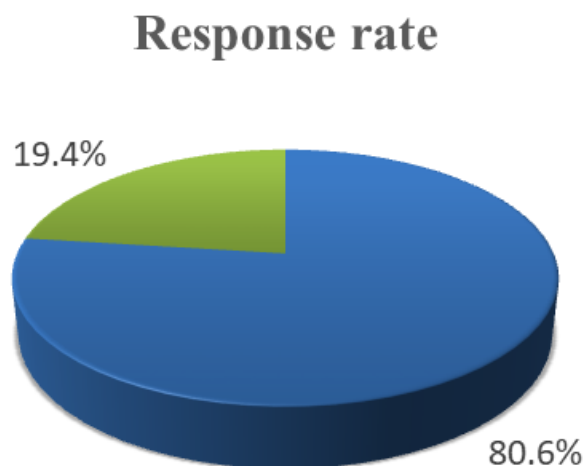
Response rate

Figure 1. Response rate.

Figure 1 shows the positive response rate of 80.6%, which was satisfactory for the study. Patten (2016) stated that a response charge of fifty% is adequate. This therefore means that the study response rate was good.

4.2. Demographic Information

The results from the demographics for the years of operations shown in Table 1 indicated that between 1 and 2 years 28.1 %, Between 3 and 4 years 25.6%, Below 1 year 24.4%, Above 5 years 21.9%.

Table 1. Demographics on years of operation.

Sample	Frequency	Percentage %
Between 1 and 2 years	90	28.1
Between 3 and 4 years	82	25.6
Below 1 year	78	24.4
Above 5 years	70	21.9
Total	320	100.0

Source: Data (2023).

The research further sought information on size of the enterprise in terms of number of employees. Table 2 indicated that 6-10 employees 19.1%, 16-20 employees 26.3 % Over20 employees = 19.1%, 11-15 employees =18.8 %, Less than 5 employees =16.9%. This implies sufficient distribution in years worked.

Table 2. Demographics on size of enterprise.

Sample	Frequency	Percentage %
6-10 employees	61	19.1
16-20 employees	84	26.3
Over 20employees	61	19.1
11-15 employees	60	18.8
Less than 5 employees	54	16.9
Total	320	100.0

Source: Data (2023).

4.3. Descriptive Statistics

The research sought to determine the effect of electronic taxpayer education on turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County. A descriptive summary of the responses as explained on Table 3 where Kenya Revenue Authority (KRA)has educated me how to operate file my tax returns mean=3.0092, I find I-Tax platform easily understood when filing my tax Mean =3.0091, Taxpayer awareness programs through internet have led to more revenue Mean =3.0089, Advertising through internet reaches everyone mean =2.9969, Turnover tax compliance campaigns on Tv and radio is

more reliable, Mean=3.0094, respectively, Tv and Radio turnover tax compliance campaigns are easily understood by everyone, mean=2.9969.

Table 3. Descriptive on electronic taxpayer education.

Statements	Mean	Std. dev.	Skewness	Kurtosis
KRA has educated me on how to operate and file my tax returns.	3.009	1.425	0.027	-1.310
I find I-Tax platform more convenient and easier to understand in filing my tax	3.009	1.415	0.077	1.307
Taxpayer awareness programs through internet have led to more revenue.	3.008	1.405	0.043	1.306
Advertising through internet reaches everyone.	2.996	1.415	-0.014	-1.307
Turnover tax compliance campaigns on Tv and radio is more reliable.	3.009	1.415	0.037	-1.311
Tv and Radio turnover tax compliance campaigns are easily understood by everyone.	2.996	1.401	-0.042	-1.290

4.4. Statistical Assumptions

Regression analysis is a powerful statistical tool used to model the relationship between a dependent variable and one or more independent variables. However, it is important to ensure that certain assumptions are met before interpreting the results. One of the main assumptions of regression analysis is linearity, which assumes that there is a linear relationship between the independent and dependent variables. Another important assumption is independence, which assumes that the observations are independent of each other. Other assumptions include homoscedasticity, normality, and the absence of multicollinearity. Violation of these assumptions can lead to inaccurate or misleading results. Therefore, it is essential for studies to carefully assess and report the extent to which these assumptions are met (Gujarati, Zeng, Gupta, Chen, & Korlipara, 2017).

4.4.1. Test for Normality

The Jarque-Bera normality test is a statistical test used to assess the normality of a dataset. It is widely used in social sciences and other fields to determine whether a set of data follows a normal distribution. Results from Table 4 shows the residuals of independent variable indicated a normal distribution p-value =2.212>0.05.

Table 4. Normality test.

Jarque-Bera normality test: 1.42 Chi(2) 0.28
Jarque-Bera test for Ho: normality:

4.4.2. Multicollinearity Tests

Multicollinearity is a common problem in multiple regression analysis where two or more independent variables are highly correlated. It can lead to unreliable and unstable regression coefficients, affecting the accuracy and interpretability of the model. One way to detect multicollinearity is to use the Variance Inflation Factor (VIF) test.

The VIF test measures the degree of correlation between each independent variable and the other variables in the model and determines the extent to which the variance of the estimated regression coefficient is inflated due to multicollinearity. A VIF value greater than 10 is generally considered a sign of severe multicollinearity, while values between 5 and 10 indicate moderate multicollinearity. Results figures from Table 5 the VIF shows that the VIF was below 10 indicating that the assumption for collinearity was not violated.

Table 5. Multicollinearity test.

Variable	Collinearity statistics	
	Tolerance	VIF
Electronic taxpayer education	0.896	1.116

4.4.3. Homoscedasticity Test

According to Draper and Smith (1998) homoscedasticity of errors in linear regression refers to the condition where the variance of the errors or residuals is constant across all levels of the independent variable. It means that the spread of errors from the regression line remains constant for all predicted values.

Essentially, the errors represent the differences between the actual data points and the predicted values on the regression line.

The assumption of an even distribution of residuals is crucial in linear regression, as it affects the validity of the statistical inferences made from the model. Violation of this assumption leads to heteroscedasticity, where the variance of the residuals is not constant across the range of the independent variable and can lead to biased and inconsistent estimators of the regression coefficients (Kutner et al., 2004; Montgomery et al., 2012). This phenomenon is known as heteroscedastic dispersion. Table 6 shows a p value of 0.664>0.05, therefore the assumption of homoscedasticity was not violated.

Table 6. Homoscedasticity test.

Ho: Constant variance	
Variables: fitted values of turnover tax compliance	
Chi2(1)	=0.786
Prob > chi2	= 0.664

4.4.4. Autocorrelation Test

The Durbin-Watson test is a statistical tool used to detect autocorrelation in a regression model. It examines the residuals of the regression model to determine if they are correlated with each other. A value close to 2 indicates no significant autocorrelation, while values below or above 2 suggest positive and negative autocorrelation, respectively. The test is widely used in econometrics and other fields that use time-series data (Walliman, 2021). Table 7 indicates that the Durbin-Watson statistic was 2.08 a value closer to 2 which indicates that there was no autocorrelation.

Table 7. Autocorrelation test.

Model	Statistic
Durbin- Watson statistic	2.208

4.4.5. Linearity Test

Deviation from linearity (DFL) is another statistical tool used to assess the linearity assumption in regression analysis. It involves fitting a regression model with polynomial terms and testing the significance of the added polynomial terms using an F-test. The null hypothesis is that the polynomial terms are not significant and the relationship between the independent and dependent variables is linear. A significant F-test indicates that the linearity assumption is violated. DFL can be performed using various software packages. Table 8 showed that the deviation from linearity was 0.799>0.05 therefore this shows that the data is linear.

Table 8. Linearity test.

Variability			Sum of squares	df	Mean square	F	Sig.
*TTC	Between groups	(Combined)	635.005	7	90.715	1.811	0.092
		Linearity	634.486	1	634.486	0.382	0.699
		Deviation from linearity	0.519	6	0.086	0.382	0.799
	Within groups		0.320	312	0.001	0.001	0.432
	Total		635.325	319	725.288	2.193	1.59

4.5. Correlation Analysis

Correlation analysis is a statistical device used to study the relationship between two continuous variables. It measures the level of affiliation between the variables the usage of the correlation coefficient, starting from -1 to +1. The significance cost in correlation evaluation refers back to the probability of obtaining the observed correlation coefficient by chance. It is calculated using a t-test and a two-tailed p-value. A p-value less than the significance level (usually 0.05) indicates that the correlation is statistically significant, while a p-value greater than the significance level suggests that the correlation is not significant (Ahuja, 2011). The results from Table 9 show the relationships between the independent variables and the dependent variable; electronic taxpayer education had a significant and positive correlation with turnover tax compliance r=.668** p=.000.

Table 9. Correlation analysis.

Variables		TTC	ETE
Turnover tax compliance (TTC)	Pearson correlation	1	
	Sig. (2-tailed)		
	N	320	
electronic taxpayer education (ETE)	Pearson correlation	0.668**	1
	Sig. (2-tailed)	0.000	

Note: **. Correlation is significant at the 0.05 level (2-tailed).

4.6. Regression Analysis

The regression model measured the effect of electronic taxpayer education and its effect on turnover tax compliance.

Regression model results are displayed in Table 10. With a sample response rate of 320, and the R-squared value for model summary was 0.45, this shows that a whopping 45% of the variation in the turnover tax compliance was explained by the factors only captured in model. The remaining 55% of the variation is associated with other factors not captured in the model.

Table 10. Effect of taxpayer education on turnover tax compliance model summary.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.671	0.450	0.443	0.045

An analysis of variance was con. ducted to examine the effect of taxpayer education on turnover tax compliance The Analysis of Variance (ANOVA) test statistic was $F(3, 316) = 96.125$, p=0.000< .05, indicating that there was a statistically significant effect of electronic taxpayer education on turnover tax compliance as shown on Table 11.

Table 11. Effect of taxpayer education on turnover tax compliance ANOVA.

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	288.374	3	96.125	86.182	0.000
	Residual	352.457	316	1.115	0.000	0.001
	Total	640.830	319	97.24	0.000	0.001

According to Table 12 results, unit change in electronic taxpayer education causes a significant 0.431 increase in Turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County.

Table 12. Effect of taxpayer education on turnover tax compliance.

Model		Standardized coefficients		Unstanderdized	t	Sig.
		B	Std. error	B		
1	(Constant)	0.615	0.058	**0.041**	10.603	0.000
	Electronic taxpayer education	0.431	0.097	0.512	4.443	0.000

4.7. Regression Model

The principal inferential statistic was the hierarchical regression that was intended to establish the impacts of electronic taxpayer education while holding the influences of taxpayer perception under control. Table 13 indicates that there is a significant moderating effect of taxpayer perception on the relationship between electronic taxpayer education and turnover tax compliance the p values for the interaction terms are significant at 0.05.

Table 13 indicates the overall moderating effect of taxpayer perception on the relationship between electronic taxpayer education and turnover tax compliance. The overall moderating effect shows that for at a constant of 0.624 unit change in electronic taxpayer education there was a 0.600 increase in turnover tax compliance. Further the study shows that there is a positive and statistically significant moderating effect of taxpayer perception on the effect of electronic taxpayer education on turnover tax compliance 0.909

Table 13. Hierarchical model results.

Variables	Model 1	Model 2	Model 3
	Direct effects	Effect of moderator	Interact tpp*ete
Main effects			
Electronic taxpayer education	0.431**	0.631**	0.600**
Moderator effects			
taxpayer perception	1	0.447**	0.422**
Interactions	1	1	0.909**
taxpayer perception X electronic taxpayer education	1	1	0.600**
F Statistic	86.182	63.913	50.421
R	0.671	0.669	0.667
R²	0.450	0.448	0.445
Adj R²	0.443	0.420	0.432
ΔR²	0.411	0.002	0.003
N	320	320	320

Note: **. Correlation is significant at the 0.05 level (2-tailed).

4.8. Hypotheses Testing

H_{01}: *Electronic taxpayer education had no significant effect on turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County. The study found that the p value = 0.000<0.05, therefore the null hypothesis is rejected.*

H_{02} *Taxpayer perception has no significant moderating effect on the relationship between electronic taxpayer education and turnover tax compliance among small and medium enterprises in Eldoret Town, Uasin Gishu County. Study found that the p value =0.000<0.05, the null hypothesis is rejected.*

5. Conclusion and Recommendation

5.1. Conclusions

Based on the study findings, the study makes a strong conclusion that electronic taxpayer education has a significant effect on turnover tax compliance. Holding seminars, workshops and cultural events for SMEs are common indicators of electronic taxpayer education. Use of I-Tax platform makes it easier for SMEs in filing tax, SMEs taxpayer awareness programs through internet generates more revenue. Consequently, advertising through internet reaches majority of SMEs.

5.2. Recommendations

Policy makers should focus on providing tax education programs for SMEs, especially for those operating in the informal sector. Additionally, policy makers should ensure that tax education materials provided through print media are simple and easily understandable, and reach a wider audience, especially those operating in the informal sector who may not have access to digital media. The study was centered on economic deterrence theory only. Future studies should incorporate other theories not captured by the study. Future research should investigate the long-term effects of electronic taxpayer education on compliance behavior and examine how tax education impacts other areas of SMEs.

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