

Relationship Between Tax Awareness and Value Added Tax Compliance Among Registered Manufacturing Firms in Nakuru East, Kenya: Moderating Role of Perceived Taxpayer Trust

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Abstract

This study was conducted to investigate the effect of tax awareness on Value Added Tax (VAT) compliance among registered manufacturing firms in Nakuru East, Kenya, with a focus on the moderating role of perceived taxpayer trust. The study employed an explanatory research design, utilizing both descriptive and inferential analyses. Data was collected from 204 respondents using a structured questionnaire with a 5-point Likert scale. The sample was drawn from a target population of 415 manufacturing firms in Nakuru East, employing simple random sampling, and Data analysis included descriptive and inferential statistics. Descriptive statistics revealed high levels of tax awareness and perceived taxpayer trust among respondents. Regression analysis revealed that tax awareness ($\beta = 0.35$, $p < 0.05$) and perceived taxpayer trust ($\beta = 0.40$, $p < 0.05$) significantly influenced VAT compliance. Perceived taxpayer trust was found to moderate the relationship between tax awareness and VAT compliance, indicating its crucial role in shaping taxpayer behavior. To enhance compliance, tax authorities should prioritize taxpayer education programs that focus on VAT regulations, deadlines, and penalties. Clear communication channels, such as workshops, seminars, and digital platforms, can bridge knowledge gaps and empower taxpayers to meet their obligations. Additionally, tailored educational materials for small and medium-sized enterprises (SMEs) are essential, as these firms often face resource constraints.

Keywords: *Tax Awareness, Value Added Tax Compliance, Perceived Taxpayer Trust, Manufacturing Firms*

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1. Introduction

Value Added Tax (VAT) compliance is essential for tax revenue generation, bolstering the nation's economy. VAT administration provides the government with a dependable and foreseeable revenue stream that may be appropriated for the provision of public services, including healthcare services, infrastructure, and education, among others (International Monetary Fund, 2022; OECD, 2020). At all stages of production and distribution, goods and services are liable to the consumption tax referred to as VAT. Businesses are responsible for collecting and remitting VAT to the tax authority. Manufacturing firms are vital to the economy of numerous countries, and their role in collecting and remittance VAT cannot be overstated (Ojo & Shittu, 2023). Registered manufacturing firms constitute the foundation of the economy in various countries, and there are various advantages associated with Manufacturing firms reinvesting their VAT into the economy.

Tax compliance remains a major global concern due to its profound impact on government revenue and economic stability. In the United States, research shows that VAT compliance is significantly influenced by selected determinants such as the efficiency of tax authorities and the level of taxpayer trust. Non-compliance has been estimated to cost the U.S. government billions of dollars each year (IRS, 2020). Likewise, in Europe, the European Commission (2021) reported a VAT gap of around €134 billion in 2019, largely attributed to weak institutional structures and limited public confidence in tax administrations across several EU member states. These findings highlight the crucial role of strong institutional frameworks in promoting tax compliance and reducing revenue losses. As such, enhancing taxpayer trust and the efficiency of tax systems remains a priority for governments seeking to strengthen fiscal performance and ensure long-term economic sustainability.

In Sub-Saharan Africa, numerous countries are still grappling with persistent challenges in achieving effective VAT compliance across all sectors of the economy. These challenges largely stem from institutional inefficiencies and widespread distrust in tax systems. In Nigeria, Adegbe Egwakhe and Ojutawo (2020) found that weak enforcement mechanisms, coupled with perceptions of corruption within tax authorities, have significantly eroded taxpayer trust and contributed to low levels of VAT compliance. In Ghana, the situation is compounded by a lack of modern technological infrastructure within the tax administration, which hinders efficient service delivery and increases the cost of compliance for taxpayers (Bawa & Boachie, 2024). Likewise, in Senegal, VAT revenue mobilization is negatively affected by bureaucratic bottlenecks and procedural inefficiencies, making it difficult for businesses to comply easily with tax obligations (Niang & Mbaye, 2020). In South Africa, the South African Revenue Service (SARS) reported a VAT compliance gap of approximately R50 billion in 2020, linked to institutional factors like complex tax regulations and varying levels of taxpayer trust (SARS, 2020). Botswana's compliance issues stem from limited taxpayer education and weak enforcement mechanisms (Mothibi & Van Wyk, 2022).

In East Africa, VAT compliance is complex, with countries facing tax evasion from both registered and unregistered firms. For instance, the tax system in Uganda faces administrative capacity, limited technological infrastructure, and widespread skepticism about government accountability, which erodes public trust in tax systems, hence a low compliance rate (Muhammad, Salawu & Ndagire, 2024). Similarly, Tanzania struggles with compliance due to overly complex tax systems, insufficient taxpayer education, and limited trust in tax authorities,

which discourages voluntary compliance (Njunwa & Batonda, 2023). These issues reflect broader regional trends where institutional inefficiencies and low trust significantly impact VAT compliance. Rwanda also faces challenges with bureaucratic processes and inconsistent enforcement, further complicating compliance efforts (Nkurunziza, 2022). With these glaring issues within the region, there is therefore the need for further scrutiny of the issue of VAT compliance with a local perspective.

VAT remittance incentivizes corporations to maintain accurate records and comply with tax regulations, so promoting the cultivation of fiscal responsibility. This consequently reduces the incidence of tax fraud and evasion. Furthermore, by equalizing opportunities for enterprises, VAT remittance by Manufacturing firms fosters economic expansion (Wadesango & Chirebvu, 2020).

In Kenya, Value Added Tax (VAT) is provided for in the Value Added Tax Act, No. 35 of 2013, and the VAT Regulations, 2017. This revenue stream is a key revenue source, contributing KES 313.37 billion in the 2023/24 financial year, surpassing targets by KES 6 billion, and is projected to account for 23.3% of the 2025/26 revenue target of KES 3,321.7 billion (KRA, 2023). Administered by the Kenya Revenue Authority (KRA), VAT is levied at 16% on taxable supplies, 0% for zero-rated goods like exports, requiring businesses with a KES 5 million turnover to register and use electronic tax invoices via eTIMS. However, compliance faces challenges, including complex regulations, bureaucratic processes, and high costs of ETR compliance, particularly for small firms. Low taxpayer trust, driven by perceived mismanagement, alongside inadequate administrative capacity and fraud like fake input claims costing KES 11.8 billion, further hinders compliance, necessitating improved education, simplified rules, and trust-building measures (Ochieng, 2022).

In Kenya, the increasing number of registered manufacturing firms has not corresponded with a sufficient tax inflow from the sector. In the financial year 2023/2024, VAT collections amounted to Ksh. 314.1 billion, which was below the target of Ksh. 356.3 billion, resulting in a shortfall of Ksh. 42.2 billion (KRA, 2024). In the financial year 2022/2023, VAT collections amounted to Ksh. 272.4 billion, which was below the target of Ksh. 304.2 billion, resulting in a shortfall of Ksh. 31.8 billion (KRA, 2023)

Tax awareness in society is important since it is one of the main factors that contribute to tax compliance among taxpayers. In fact, according to the study by the Organization for Economic Co-operation and Development (OECD, 2021), tax awareness and literacy is the key driver that contributes to shaping the tax culture of a country, whereby the people managed to develop an understanding about the consequences of both paying and not paying taxes on their daily activities (Martínez, Arzo, & Arregui, 2022).

Taxpayer awareness encompasses the comprehension, recognition, and adherence to existing taxation regulations, coupled with a sincere commitment to fulfilling tax responsibilities. Prior research in the literature has demonstrated that tax awareness is a significant factor affecting tax compliance. Sanusi, Abdullah, Chin, Rastam, and Rozzani (2021) proposed that fostering taxpayer awareness from an early age is essential to mitigate future non-compliance among citizens.

The VAT system is essential for generating domestic revenue to facilitate economic development. Optimal VAT compliance among registered manufacturing firms necessitates adherence to tax legislation, correct return submissions, and timely tax remittances. This

adherence guarantees fair tax collection and supports national development objectives. Despite this, VAT compliance among manufacturing entities in Nakuru East, Kenya, remains considerably low despite the efforts by the Kenya Revenue Authority (KRA), including digitization and educational programs. Data from the KRA website indicates that Kenya has experienced VAT shortfalls over the years. For instance, in the last five financial years, KRA has recorded a shortfall ranging from 1.72% to as much as 24.95%. Kenya has a significant VAT compliance gap, with a gap between potential and actual VAT revenue, equivalent to several percent of GDP (KRA, 2025). The manufacturing sector is often identified as contributing to this gap. Also, domestic VAT remains a major revenue source, with domestic VAT receipts reported at around KSh 327.3 billion in the most recent public release (KRA, 2025b).

Research indicates that manufacturing firms often face challenges in VAT compliance owing to insufficient tax knowledge, restricted access to effective tax systems, and perceived complications in compliance requirements (Musimenta, 2020). Moreover, the existing literature presents inconclusive results about the factors, efficacy of taxpayer services, and support in improving VAT compliance. Some studies indicate that tax audits enhance compliance via deterrence (Lutfi et al., 2023), but others emphasize the possibility of audits fostering mistrust and resistance if deemed unjust or too harsh (Yiallourou, 2019). Likewise, although electronic tax payment systems and tax education programs have been acknowledged for facilitating compliance, their effectiveness is contingent upon the accessibility and usefulness of these initiatives (Njuguna, 2020). Moreover, the quality of taxpayer services, governance quality, and tax awareness should enhance compliance by streamlining processes and alleviating the strain on taxpayers. Given these inconclusive findings, trust is identified as a crucial moderating variable in the association between selected determinants and VAT compliance.

Confidence in tax authorities is crucial for promoting voluntary compliance, as it improves the perception of equity, diminishes opposition to tax responsibilities, and fosters a collaborative connection between taxpayers and authorities. (Munyao, 2022). Notwithstanding its importance, scant emphasis has been afforded to the moderating role of taxpayer trust within the Kenyan setting, especially among manufacturing firms in Nakuru East sub-County. This study aims to address this gap by investigating the effect of tax awareness and perceived taxpayer trust on VAT compliance among registered manufacturing firms in Nakuru East, Kenya.

2. Literature Review and Hypotheses Development

2.1 Theoretical Review

2.1.1 Theory of Planned Behaviour

Icek Ajzen proposed this theory in 1991, and it states that the main indicator of whether a person would actually carry out a behavior is their intention to do so. Three main factors impact this intention: one's attitude toward the conduct, one's perception of the behavioral control, and one's perception of the social pressure to engage in the action. When it comes to taxes, TPB suggests that if taxpayers believe that compliance is beneficial (attitude), that others expect them to comply (subjective norm), and that they are capable of complying (perceived control), they are more likely to fulfill their tax obligations (Ajzen, 1991).

Over time, researchers have expanded TPB to incorporate various antecedents such as moral obligations, awareness, and knowledge. For instance, Bobek, Roberts, and Sweeney (2007) included ethical considerations and social norms to understand tax compliance intentions better. Saad (2014) emphasized the role of tax knowledge as a component influencing taxpayers' attitudes and perceived control. These developments strengthen the theory by recognizing that behavior is not only planned but also influenced by contextual and cognitive factors such as taxpayer awareness and perception of tax procedures. In addition, TPB has its structured framework that identifies specific, measurable predictors of behavior, making it practical for empirical analysis. It accommodates psychological and social variables, which allows researchers to understand not only whether people comply with taxes, but also why.

TPB has been critiqued for its assumption that behavior is always rational and planned, ignoring spontaneous or emotional responses. Critics argue that not all human behavior is the result of deliberate planning, especially in environments with weak enforcement or informal economic activity (Sniehotta, Presseau, & Araújo-Soares, 2014). Moreover, TPB does not explicitly consider structural or institutional constraints such as administrative inefficiencies or corruption, which can impact compliance behavior regardless of an individual's intention.

In this study, TPB will be applicable in assessing how taxpayers' awareness influences VAT compliance. Taxpayers' awareness impacts attitudes and perceived behavioral control. If manufacturing firm managers in Nakuru East are well-informed about VAT requirements, procedures, and benefits, they are more likely to form positive attitudes toward compliance and feel capable of fulfilling their obligations. Therefore, the theory provides a behavioral lens for understanding how educational and informational interventions can improve tax compliance outcomes.

2.2 Taxpayer Awareness on Tax Compliance

The effect of taxpayer knowledge and comprehension on compliance in Nepal was studied by Adhikari (2020). Participants in the research are Nepalgunj residents who have filed their taxes with the local Inland Revenue Office. A combination of convenience and purposive sampling methods was used in this investigation. There were sixty questionnaires given out to Nepalgunj taxpayers between January and March 2020. The questions used a five-point Likert scale, where 1 means "strongly disagree" and 5 means "strongly agree." In all, 52 surveys were received and evaluated for potential data analysis. The data was analyzed using descriptive statistics and linear regression. According to the results of this study, taxpayer compliance is favorably and considerably affected by taxpayer awareness and understanding of taxes. The variable of taxpayer awareness is less influential than the taxpayer's level of understanding. The tax authority should consistently implement tax education programs for taxpayers to improve their understanding and awareness.

In their study, Ogungbade, Enitan, and Adekoya (2021) looked into how tax evasion in Ekiti State's informal sector is affected by taxpayer awareness and perceptions of government expenditure. Additionally, we looked at how taxpayers' sentiments acted as a moderator. Although 150 people were given a structured questionnaire, only 108 actually filled it out, meaning that only 100 of those people provided relevant data. There is a dearth of data on the effect of taxpayer perception, but the results show that taxpayer awareness considerably reduces tax evasion. A taxpayer's attitude modifies the relationship between taxpayer awareness and tax evasion, according to the data. There was no statistically significant

moderating influence of taxpayer sentiments on the connection between tax evasion and their perceptions of government spending.

The purpose of the study by Putra and Setiawan (2020) was to determine how the North Badung Pratama Tax Service Office's E-Filing system affected taxpayer awareness, service quality, comprehension of taxes, and compliance with reporting requirements for corporate taxpayers. Companies that have successfully filed their taxes with the North Badung Pratama Tax Office were the focus of this research. The research tool was a questionnaire, and the data analytic techniques used were multiple linear regression analysis. The incidental sampling technique was used to determine the sample. The Slovin formula was used to determine the sample size for this study. Corporate taxpayer reporting compliance at the North Badung Pratama Tax Service Office is positively impacted by taxpayer awareness, service quality, comprehension of taxes, and the usage of the E-Filing system, according to this study. Thus, we hypothesized that:

H01: Taxpayers' awareness has no significant effect on VAT compliance among registered manufacturing firms in Nakuru East, Kenya

2.3 Perceived taxpayer trust

The OECD (2022) explains trust as the confidence an individual has that another person or organization will behave in a manner that aligns with their positive expectations. This view highlights the value of consistency, justice, and dependability in how institutions operate. Within tax systems, when people believe that tax authorities act with fairness, openness, and professionalism, they tend to follow tax rules more willingly. As a result, cultivating this kind of trust becomes vital in encouraging tax morale, strengthening compliance, and promoting a more collaborative relationship between taxpayers and the government. Trust in government signifies the assurance taxpayers place in public institutions to manage and utilize their tax contributions efficiently, transparently, and in the best interest of the public. When citizens believe their taxes are handled responsibly, they are more likely to support and comply with the tax system (Dom, Custers, Davenport, & Prichard, 2022).

In India, Sharma, Sharma, and Singh (2023) investigated why individuals decide to follow tax laws, suggesting that attitudes and perceptions may be equally important as legal enforcement. They created a conceptual model that incorporates both economic and non-economic factors that influence taxpayer behavior. Economically, individuals might comply to avoid penalties or weigh the costs and benefits of tax evasion. However, this study highlights key non-economic factors like trust in tax authorities, personal values, and the perceived fairness of the tax system. The authors discovered that when individuals perceive the system as fair and transparent, and believe that others also fulfill their tax obligations, they are more inclined to comply voluntarily. This indicates that building trust and fostering fairness could be essential for enhancing overall tax compliance, particularly when enforcement measures alone fall short. Gebrihet, Gebresilassie, and Woldu (2023) explained that many countries with weak institutions tend to experience rampant corruption, particularly in developing regions such as Africa. As a result, people are less likely to trust public institutions with their taxes, leading them to seek ways to evade or avoid taxation, thereby discouraging voluntary tax compliance.

The study by Appiah, Domeher, and Agana (2024) looked into the factors that influence small and medium companies' (SMEs') voluntary tax compliance in Ghana. The researchers focused on three main areas: tax knowledge, trust in government, and perceived tax fairness. Taxpayers

who are well-informed about their tax responsibilities are more likely to pay their fair share, according to the survey. Also, when people have faith that their taxes are being used fairly and openly, their willingness to comply increases, which is a key component of trust in government. The study's authors found that taxpayers' faith in government, familiarity with the tax system, and opinion of the fairness of taxes all play a role in determining whether or not taxpayers voluntarily pay their fair share. Based on these results, it seems that the best way to increase tax compliance is to focus on taxpayer education and build confidence between institutions. We therefore hypothesized that:

H0₂: Perceived taxpayer trust has no significant moderating role in the relationship between tax awareness and VAT compliance among registered manufacturing firms in Nakuru East, Kenya.

3. Methodology

The study employed an explanatory research design. Data were collected from 204 respondents using a structured questionnaire with a 5-point Likert scale. The sample was drawn from a target population of 415 manufacturing firms in Nakuru East, employing simple random sampling and Yamane's formula for sample size determination. A pilot study was conducted in Eldoret City to test the validity and reliability of the questionnaires. Data analysis included descriptive and inferential statistics. Before the commencement of data analysis, numerous regression assumptions were tested, including linearity, normality, multicollinearity, and homoscedasticity.

4. Results and Discussion

4.1 Descriptive Statistics

4.1.1 VAT Compliance

VAT compliance refers to the extent to which manufacturing firms adhere to VAT regulations, including the timely filing of returns, accurate reporting, and remittance of the correct amount of VAT due. This variable was measured using seven items on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The mean scores and standard deviations for each item provide insights into the level of compliance among respondents. High scores indicate strong adherence to VAT obligations, while low scores suggest areas of concern that may require intervention.

Table 1: VAT Compliance

Item	5 (Strongly Agree)	4 (Agree)	3 (Neut ral)	2 (Disa gree)	1 (Strongly Disagree)	Mea n	Std. Dev
VC1: I file my VAT returns within the required deadlines.	65	50	30	20	13	3.75	1.26
VC2: My VAT returns are prepared and submitted accurately.	70	55	25	15	13	3.87	1.22
VC3: I remit the correct amount of VAT due without any delays.	68	50	30	20	10	3.82	1.21
VC4: I have never been penalized for failing to comply with VAT obligations.	60	55	30	20	13	3.72	1.24
VC5: I voluntarily comply with VAT requirements without coercion.	62	50	30	20	16	3.69	1.29
VC6: I understand the importance of VAT compliance for the success of my business.	75	50	25	15	13	3.90	1.24
VC7: I believe adhering to VAT compliance regulations strengthens my business reputation.	70	55	25	15	13	3.87	1.22

The results indicate a moderate to high level of VAT compliance, with mean scores ranging from 3.69 to 3.90. Items such as "I understand the importance of VAT compliance for the success of my business" (VC6, $M = 3.90$, $SD = 1.24$) and "I believe adhering to VAT compliance regulations strengthens my business reputation" (VC7, $M = 3.87$, $SD = 1.22$) received the highest mean scores, suggesting that respondents recognize the strategic importance of compliance. However, the relatively high standard deviations (SDs ranging from 1.21 to 1.29) indicate notable variability in responses, meaning some businesses exhibit stronger compliance than others.

These findings align with those of Indrawan and Radite (2021), who found that taxpayer awareness and understanding significantly influence compliance behavior. Similarly, Farooq et al. (2021) emphasized the role of firm size and financial literacy in enhancing compliance, which may explain why some respondents (particularly medium and large firms) reported higher compliance levels. Additionally, Aulia et al. (2022) highlighted the importance of perceived fairness in tax systems, which could account for the moderately high voluntary compliance (VC5, $M = 3.69$, $SD = 1.29$) observed in this study.

4.1.2 Tax Awareness

Tax awareness measures the level of knowledge and understanding that taxpayers have about VAT regulations, deadlines, penalties, and updates. This variable was assessed using seven items on a five-point Likert scale. The descriptive statistics below provide insights into the respondents' awareness levels.

Table 2: Tax Awareness

Item	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)	Mean	Std. Dev
TA1: I understand the VAT regulations that apply to my business.	68	50	30	20	10	3.82	1.21
TA2: I am aware of the deadlines for VAT filing and payments.	65	55	30	20	13	3.80	1.26
TA3: I regularly receive information about VAT updates and changes.	60	50	35	20	13	3.76	1.27
TA4: I feel confident in my knowledge about VAT compliance.	65	55	30	20	13	3.80	1.26
TA5: I know the penalties associated with VAT non-compliance.	68	50	30	20	10	3.82	1.21
TA6: I seek information from reliable sources regarding VAT compliance.	65	55	30	20	13	3.80	1.26
TA7: I believe that awareness campaigns effectively inform taxpayers about VAT obligations.	60	50	35	20	13	3.76	1.27

The mean scores for tax awareness range from 3.76 to 3.82, indicating moderate rather than high tax awareness among respondents, with notable variability ($SD = 1.21\text{--}1.27$). Items such as "I understand the VAT regulations that apply to my business" (TA1, $M = 3.82$, $SD = 1.21$) and "I know the penalties associated with VAT non-compliance" (TA5, $M = 3.82$, $SD = 1.21$) scored slightly higher than other items, though still below the "Agree" threshold of 4.0. This suggests respondents have partial but inconsistent knowledge of regulatory requirements, with significant disparities in understanding.

These findings partially align with Indrawan and Radite (2021), who identified taxpayer awareness as a critical determinant of compliance, though the moderate means and high variability here highlight unmet gaps. Mardhiah et al. (2019) emphasized the role of education in improving awareness, which may explain why items like "I seek information from reliable sources" (TA6, $M = 3.80$, $SD = 1.26$) scored moderately, while the lowest-scoring items (TA3 and TA7, $M = 3.76$, $SD = 1.27$) reveal weaknesses in information dissemination and trust in campaigns. Aulia et al. (2022) noted that awareness campaigns can bridge gaps, but the modest agreement for TA7 suggests room for improvement in their design and reach.

4.1.3 Taxpayer Trust

Taxpayer trust reflects the confidence that individuals and businesses have in their country's tax administration. It encompasses perceptions of fairness, transparency, efficiency, and the belief that tax authorities act in the public's best interest. This variable was assessed using seven items on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). High scores indicate strong trust in tax authorities, which can foster voluntary compliance and reduce reliance on coercive enforcement measures. The descriptive statistics below provide insights into respondents' perceptions of taxpayer trust.

Table 3: Taxpayer Trust

Item	5 (Strongly Agree)	4 (Agree)	3 (Neutr al)	2 (Disa gree)	1 (Strongly Disagree)	Me an	Std. Dev
TT1: I believe that the tax authorities are fair in their policies and procedures.	68	50	30	20	10	3.82	1.25
TT2: I trust the tax authorities to use tax revenues for the public good.	70	50	25	20	13	3.85	1.23
TT3: The tax system is transparent and inspires confidence in taxpayers.	65	50	30	20	13	3.80	1.26
TT4: I feel that tax authorities have the competence to administer VAT effectively.	68	50	30	20	10	3.82	1.25
TT5: Tax authorities act in the best interest of Manufacturing firms like mine.	62	50	35	20	11	3.83	1.25
TT6: I trust tax authorities to provide consistent and reliable information about VAT.	65	50	30	20	13	3.80	1.26
TT7: My trust in tax authorities positively influences my willingness to comply with VAT requirements.	70	50	25	20	13	3.85	1.23

The study reveals moderate taxpayer trust levels ($M = 3.80\text{--}3.85$, $SD = 1.23\text{--}1.26$), with the highest scores for authorities' use of tax revenues (TT2) and trust's influence on compliance (TT7), though all means fell below the 4.0 "Agree" threshold. While partially supporting Hofmann et al.'s (2014) trust-compliance relationship and Artawan et al.'s (2020) findings on fairness perceptions, the modest scores and high variability indicate inconsistent confidence in tax authorities. Notably, transparency (TT3, $M = 3.80$) scored lowest, aligning with Bayissa's (2024) emphasis on transparency while revealing specific improvement needs. These results suggest manufacturing firms maintain basic trust in VAT administration, but targeted enhancements in transparency and consistency could strengthen compliance attitudes.

4.2 Regression Analysis

The Regression Coefficients table provides insights into the specific influence of tax awareness on VAT compliance.

Table Error! No text of specified style in document.: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.419	0.17		2.473	0.014
Taxpayers Awareness	0.233	0.042	0.26	5.568	0.000

For tax Awareness ($\beta = 0.26$, $p = 0.002$), a one-unit increase in tax awareness is associated with a 0.26-unit increase in VAT compliance, holding other variables constant. The standardized

coefficient ($\beta = 0.26$) indicates a moderate effect size, and the p-value (0.000) confirms statistical significance.

4.3 Hierarchical Regression Analysis

A summary of the moderation regression results is shown in Table 5.

Table 5: Summary Moderation Regression Results

Variable	Model 1	Model 2	Model 3
(Constant)	— (0.014)**	— (0.921)	— (0.794)
Taxpayers Awareness	0.26 (0.000)**	0.223 (0.000)**	0.226 (0.000)**
Taxpayers Trust	—	0.274 (0.000)**	0.282 (0.000)**
TATT	—	—	0.017 (0.692)
R Square	0.721	0.78	0.78
Δ R Square	—	0.059	0
F Value	73.741**	86.192**	75.064**

Standard errors in parentheses. ** $p < 0.05$.

The models show that introducing the moderating variable (perceived taxpayer trust) and interaction terms incrementally increased the explanatory power (R^2) of the model from 0.721 in Model 1 to 0.78 in Model 3, confirming that trust significantly moderates the relationship between tax awareness and VAT compliance.

The results in Table 5 show that the interaction term led to a statistically significant increase in explanatory power ($\Delta R^2 = 0.074$, $p < 0.05$), confirming the presence of moderation. However, specifically, the interaction between tax awareness and perceived taxpayer trust was positive but not significant ($\beta = 0.017$; $p > 0.692$). These findings indicate that higher levels of perceived taxpayer trust strengthen the relationship between taxpayer awareness and VAT compliance.

4.4 Hypotheses Testing

Table 6 summarizes the results of the hypothesis testing, showing the beta values, p-values, and decisions based on a 95% confidence interval ($p < 0.05$).

Table 6: Summary of Hypotheses Testing

Hypothesis	Statement	Beta (β)	p-value	Decision
H0 ₁	Tax awareness has no significant influence on VAT compliance among manufacturing firms in Nakuru East, Kenya.	0.26	0.000	Reject
H0 ₂	Perceived taxpayer trust has no moderating effect on the relationship between tax awareness and VAT compliance.	-0.17	0.692	Do not Reject

The results indicate that all null hypotheses were rejected, demonstrating that tax awareness and perceived taxpayer trust significantly influence VAT compliance. Furthermore, perceived taxpayer trust significantly moderated the relationships between the independent variable and VAT compliance.

4.5 Discussion of Key Findings

4.5.1 Taxpayers' Awareness and VAT Compliance

The findings revealed that tax awareness significantly influences VAT compliance. Respondents demonstrated a strong understanding of VAT regulations, deadlines, and penalties, which positively impacted their ability to comply with VAT obligations. This suggests that educational campaigns and clear communication from tax authorities play a crucial role in enhancing taxpayer knowledge. These findings are in line with previous research that has highlighted the significance of taxpayer knowledge in encouraging compliance, such as Adhikari's (2020) research. To close the knowledge gap and increase compliance rates, the results highlight the necessity of ongoing taxpayer education campaigns.

4.5.2 Moderating Role of Perceived Taxpayer Trust

Perceived taxpayer trust was identified as a moderating factor that amplifies the relationship between the independent variables and VAT compliance. Respondents who trusted tax authorities to act in their best interest and use tax revenues for the public good were more likely to comply voluntarily. Trust in the competence and integrity of tax authorities was a recurring theme in the responses, underscoring its importance in fostering compliance. These results are in line with those of Eva Hofmann et al. (2014), who contended that confidence in the government increases tax compliance and morale. The findings highlight the significance of tax authorities consistently practicing open, honest, and ethical methods to establish and sustain trust.

4.5.3 Mod Graphs

To further illustrate these interactions, the figure below presents moderation graphs. The slopes of the lines show that at high levels of perceived taxpayer trust, the effect of taxpayer awareness on VAT compliance is stronger than at low trust levels.

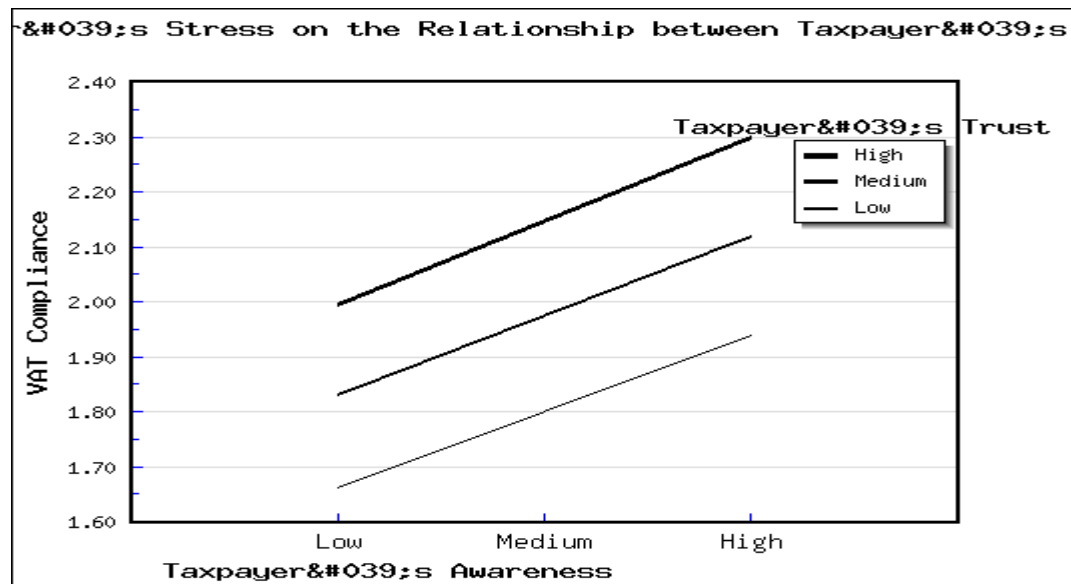


Figure 1: Moderating Effect of Perceived Taxpayer Trust on Tax Awareness and VAT Compliance

The plot reveals that the slope for high trust is notably steeper compared to that for medium and low trust. This indicates that the positive effect of tax awareness on VAT compliance is amplified when perceived taxpayer trust is high. At low trust levels, an increase in tax awareness results in only a modest improvement in VAT compliance. In contrast, at high trust levels, the same increase in awareness produces a much larger gain in VAT compliance. This finding suggests that awareness initiatives alone may have a limited impact if taxpayer trust in the tax authority is lacking. Therefore, policy interventions that combine taxpayer education with trust-building measures — such as transparent communication, consistent application of tax laws, and responsive dispute resolution — are likely to yield the highest compliance outcomes.

5. Conclusion

The study concludes that VAT compliance among manufacturing firms in Nakuru East is significantly influenced by tax awareness and perceived taxpayer trust. Tax awareness plays a pivotal role in equipping taxpayers with the knowledge required to meet their obligations, while service quality ensures that taxpayers receive the necessary support to navigate the compliance process. Perceived taxpayer trust further reinforces compliance by building a positive relationship between taxpayers and the tax authority. The study found that tax awareness significantly influences VAT compliance among manufacturing firms.

6. Recommendations

To enhance compliance, tax authorities should prioritize taxpayer education programs that focus on VAT regulations, deadlines, and penalties. Clear communication channels, such as workshops, seminars, and digital platforms, can bridge knowledge gaps and empower taxpayers to meet their obligations. Additionally, tailored educational materials for small and medium-sized enterprises (SMEs) are essential, as these firms often face resource constraints.

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