Scholarly Publisher
RS Global Sp. z O.O.
ISNI: 0000 0004 8495 2390

Dolna 17, Warsaw, Poland 00-773
Tel: +48 226 0 227 03
Email: editorial_office@rsglobal.pl

JOURNAL	International Journal of Innovative Technologies in Economy
p-ISSN	2412-8368
e-ISSN	2414-1305
PUBLISHER	RS Global Sp. z O.O., Poland

ARTICLE TITLE	THE PERCEPTION OF THE CUSTOMS' STAFF ON ADMINISTRATIVE REFORMS AND TAX COMPLIANCE IN KENYA
AUTHOR(S)	Micah Odhiambo Nyamita, Daniel Inyani Kaunda
ARTICLE INFO	Micah Odhiambo Nyamita, Daniel Inyani Kaunda. (2023) The Perception of the Customs' Staff on Administrative Reforms and Tax Compliance in Kenya. *International Journal of Innovative Technologies in Economy*. 4(44). doi: 10.31435/rsglobal_ijite/30122023/8099
DOI	https://doi.org/10.31435/rsglobal_ijite/30122023/8099
RECEIVED	19 November 2023
ACCEPTED	28 December 2023
PUBLISHED	29 December 2023
LICENSE	This work is licensed under a **Creative Commons Attribution 4.0 International License.**

THE PERCEPTION OF THE CUSTOMS' STAFF ON ADMINISTRATIVE REFORMS AND TAX COMPLIANCE IN KENYA

Micah Odhiambo Nyamita
Faculty of Business and Economics
Tom Mboya University College

Daniel Inyani Kaunda
School of Business and Public Management,
KCA University

DOI: https://doi.org/10.31435/rsglobal_ijite/30122023/8099

ARTICLE INFO
Received 19 November 2023
Accepted 28 December 2023
Published 29 December 2023

KEYWORDS
Tax Reforms, Tax System Automation, Taxpayer Education, Tax Staff Training, Tax Enforcement Strategies, Tax Compliance.

ABSTRACT
In developing economies like Kenya, central to the problem of tax compliance are low-income entities, who struggles with making sure they register, file, and pay their taxes on time. All governments, in general, confront the same difficulties in assessing tax compliance risks and adopt administrative reforms, such as system automation, taxpayer education, staff training and enforcement strategies. This study sought to establish how these administrative reforms adopted within the customs offices in Kenya influence tax compliance. The study adopted correlational research design with a target population of 1736 employees within the seven Divisions in Customs & Border Control Department in Kenya. A stratified random sampling technique was applied to identify a sample size of 175 employees for the study. The primary data collected, through questionnaires, was analysed using both descriptive and inferential statistics. The results revealed that the adopted administrative reforms of system automation, taxpayer education, staff training and enforcement strategies explains about 49.1% of the variations on the tax compliance level in Kenya, with system automation, staff training and enforcement strategies having a positive significant influence. Therefore, tax authorities and fiscal policy architects can take proactive steps towards fostering a culture of compliance, thereby enhancing revenue collection and the overall efficiency and effectiveness of tax administration in Kenya.

Citation: Micah Odhiambo Nyamita, Daniel Inyani Kaunda. (2023) The Perception of the Customs' Staff on Administrative Reforms and Tax Compliance in Kenya. *International Journal of Innovative Technologies in Economy. 4(44).* doi: 10.31435/rsglobal_ijite/30122023/8099

Introduction.

All revenue authorities are generally required to work towards maximizing the overall level of tax compliance with the available tax laws (Adegboye & Adekanla, 2023). Tax compliance is the consciousness and readiness of taxpayers to conform with applicable tax laws in the country, which makes the taxpayer to report and pay taxes due and hence, enhance the country's public revenue collection (Hidayat, Nurbaiti, & Fachrian, 2023). However, tax compliance has been a major challenge for most national and local tax authorities' world over. Therefore, for this purpose, a lot of resources are employed on various administrative reforms, such as tax systems automation, taxpayer education, tax authority's staff training and tax enforcement strategies, by different tax authorities to achieve the best possible outcome in terms of improved compliance with the existing tax law (Oladipo, Nwanji, Eluyela, Godo, & Adegboyegun, 2022).

Theoretically, tax compliance studies are currently based on psychological and social theories, arguing that the human behavior and social status is vital in determining the taxpayer compliance decisions (Devos, 2014). Devos (2014) acknowledge the fact that with a wide range of research on tax compliance, there is still no agreement as to what make people to report and pay taxes in line with the tax regulations. Therefore, any effort, such as administrative reforms, that can psychologically and positively influence the taxpayer's behavior has a capability of enhancing the levels of tax compliance. Tax compliance has lately been perceived as a tax risk to the administrators and taxpayers which requires management (Ouyang, Fang, & Yang, 2022). Hence, the adopted administrative reforms by the tax authorities' strategies of mitigating the tax compliance risk, so as to enhance certainty of targeted tax revenue.

The Kenyan tax authority (Kenya Revenue Authority) has introduced a number of revenue compliance initiatives since its inception in 1995, with the goal of transforming into a contemporary, fully integrated, and client-focused business while also increasing revenue compliance standards for greater collections (Njogu & Nteere, 2021). Automation and integration of ICT into tax collection, the issuance of unique personal identification numbers (PINs), intensive training for its employees, tax payer education seminars, and the deployment of Electronic Tax Registers (ETR) machines, are some of the major administrative reforms that have been adopted by the Kenyan tax authority (Kenya Revenue Authority, 2022). However, according to Farida and David (2018) the non-compliance levels are still high in Kenya. Therefore, this study sought to empirically determine the influence which the adopted tax administrative reforms within the customs offices in Kenya, particularly, system automation, taxpayer education, administrative staff training and enforcement strategies have on tax compliance.

Literature review.

Devos (2014) asserts that in more than the last two decades, there has been an increased interest on the tax compliance literature, since most of the countries, including the developing economies like Kenya, have been alarmed with the growing tax evasion and non-compliance. He admits that with the increased literature findings, the scholars are yet to agree on what drives people to report and pay taxes according to the prevailing tax laws.

2.1 Theoretical review.

The major theories that a government or a tax authority can rely on when adopting administrative tax reforms may be classified under traditional economic theories, socio-psychological theories and deterrent theories (Dulleck, Fooken, Moy, & Torgler, 2023). However, as aforementioned, Devos (2014) acknowledge the fact that with a wide range of research on tax compliance, there is still no agreement as to what influences tax compliance.

Traditional economic theories.

In identifying the administrative tax reforms to be adopted by the tax authorities, traditional tax equity theories, such as the benefit theory, ability to pay theory, index of equality theory, unjust enrichment theory, and tax efficiency theories can be applied to justify the effect of the adopted tax reforms on tax compliance levels among the taxpayers (Cahyonowati, Ratmono, & Juliarto, 2022; Musgrave, 1985). According to these traditional economic theories, tax reforms which are equitable in terms of benefits towards taxpayers, focusing on the ability to pay and equality amongst taxpayers and considered efficient to the tax authority, will enhance tax compliance levels. However, it is argued that researchers have concluded that the traditional economic theories are not able to justify the conduct of tax compliance levels, since the theories ignore non-economic factors which are also key in predicting tax compliance behaviuor (Alm, 2019). This argument has influence the emergence of other theories such as socio-psychological theories in investigation of tax compliance levels.

Socio-psychological theories.

Theoretically, tax compliance studies are currently based on psychological and social theories, with the argument that the human behavior and social status is vital in determining the taxpayer compliance decisions (Devos, 2014). The socio-psychological approach to tax compliance explores tax compliance levels by emphasizing on the individual behavior. According to Cahyonowati et al. (2022), a taxpayer may not be competent enough or may be unwilling to do the computational choices which are advocated for by the economics theories and use a heuristic approach in making compliance decision. In addition, motivational factors, such as trust, fairness, social norms and personal norms may have a great influence on taxpayers decisions (Alm, 2019). Therefore, the tax authorities should adopt tax administration reforms which boost the taxpayers' morale or inherent willingness and not violating the principles of retributive justice, which may breach their psychological contract (Farrar & King, 2023).

Deterrent theories.

The deterrent theories are based on the economics of crime approach proposed by Becker (1968) and Allingham and Sandmo (1972) which stipulates that a taxpayer, with selfish interests, tries to pay less taxes, since they consider the additional utility from those tax payments to be less than the utility of those amounts used elsewhere (Dulleck et al., 2023). Therefore, it is perceived that this kind of taxpayers will avoid paying taxes unless there will be a greater loss or punishment if the non-compliance is detected. It is therefore argued that the best deterrent approach which enhances tax compliance is the one that is related to likely sanctions and punishment (Alm, 2019). Hence, in order to improve tax compliance levels, the tax authorities and governments should adopt tax administrative reforms that will embrace the tax deterrence theory variables, such as tax rate, detection probability, and penalties, which may influence the decision-making behaviuor of taxpayers positively (Ya'u et al., 2023).

2.2 Tax compliance.

Taxes are imposed established on statutes that are enforceable, either at national or regional government levels, for their expenditure needs and public investments (Hidayat et al., 2023). Therefore, tax compliance is the willingness of a taxpayer to report all incomes and tax obligations and pay the required taxes to the national or regional tax authorities according to the related tax legal framework (Paleka, Karanović, & Badulescu, 2022). According to Cahyonowati et al. (2022) the subject of tax compliance has been a major concern for scholars and government tax authorities' policymakers, since it involves various disciplines such as psychology, accounting and economics. The complexity of tax compliance is evident in interconnectedness with issues such as clarity of the legal framework, taxpayer behaviuor traits, tax morale, tax knowledge and awareness, and governance quality (Dumiter, 2023).

Hence, different tax authorities and governments have adopted various ways and means of enhancing tax compliance, both at local and national levels. However, despite the numerous tax reforms being adopted by governments over the decades, tax compliance still remains one of the major factor influencing levels of public revenue collection world over (Abu Bakar, Palil, & Maelah, 2023). With the Global tax compliance challenges, the sub-Saharan African countries, such as Kenya, have recorded the lowest levels of tax compliance and performance (Kim & Kim, 2018). In this regard, the Kenya Revenue Authority in their 8th Tax Summit Report (2022) asserts that in order to improve tax compliance in the Country, the Authority will focus more on adoption of tax administrative reforms that will target improved service delivery towards the taxpayers (Kenya Revenue Authority, 2022).

2.3 Administrative tax reforms.

As aforementioned, the tax compliance influencers include: socio-psychological aspects, such as taxpayer attitudes, fairness, social norms and tax knowledge; political aspects, such as the tax legal framework; and, economic factor or tax enforcement activities, such as fines, income, tax rates, and audit thresholds (Oladipo et al., 2022). And, it is the main responsibility of any government and tax administration to facilitate enhance tax compliance levels for effectiveness and accountability of public finance (Kim & Kim, 2018). Therefore, over the decades, most governments and tax authorities adopt tax administrative reforms targeting these factors which influence compliance and improve tax performance. According to Owens (2006) "these tax reforms have been driven by the need to provide a more competitive fiscal environment: one which encourages investment, risk-taking, and entrepreneurship, and provides increased work incentives".

In addition, Owens (2006) acknowledges the fact that governments need to sustain taxpayers' confidence in the reliability of the tax systems by adopting tax administrative reforms that improve fairness and simplicity, which makes paying taxes as painless as possible and ensure that the administrative and compliance costs are minimal. In sub-Saharan African countries, including Kenya, the national need for a better tax administrative system together with international donor financial support (IMF), has coursed over 20 years' progressive tax administration reforms since 1990 (Kim &

Kim, 2018). More precisely, this has led to adoption of tax administrative reforms such as tax system automation, enhanced taxpayer education, continuous tax authority's staff training and deterrent or enforcement strategies which are meant to improve compliance levels.

Tax system automation reforms.

Electronic taxation, with the main concept of tax system automation services, began in the United States of America (USA) in the 1980s (Irefe-Esema, 2020). Since then, most economies, including Kenya, have embraced system automation tax reforms (Wasao, 2014). Tax system automation involves using information technology platforms and control systems to lessen the work between tax administrators and taxpayers of tax registrations, reporting and payments (Prichard, Custers, Dom, Davenport, & Roscitt, 2019). Hence, adoption of tax system automation is a major strategy for enhancing tax administration efficiency and increasing compliance levels. For instance, Li, Wang, and Wu (2020) studied on how tax authorities improve tax compliance by adopting information technology in China and found that adoption of information technology, such as system automation, reduces corporate income tax hiding significantly, by improving tax reporting and enforcement capability.

In addition, Ali, Shifa, Shimeles, and Woldeyes (2017) and Mascagni, Mengistu, and Woldeyes (2021), used tax administrative data from Ethiopia for taxpayers and found out that adoption of electronic tax registration system significantly increases reported incomes and tax payments. However, Carrillo, Pomeranz, and Singhal (2017) and Slemrod, Collins, Hoopes, Reck, and Sebastiani (2017) found that adoption of tax automated systems increases compliance by increased reported incomes, and reported tax costs which in turn may not have effective influence on overall collected tax. Therefore, Okunogbe and Santoro (2023) and Steenbergen (2017) argues that, though adoption of technology could be enhancing tax compliance in terms of tax base reporting and accurate determination of tax liability, it may not be effective in areas that require robust traditional enforcement.

Taxpayer education reforms.

According to Gitaru (2017), one of the major tax reforms that have been adopted in Kenya through the national tax authority (Kenya Revenue Authority) is taxpayer education, through workshops, aimed at sensitization of taxpayers on tax compliance. However, Amaning, Anim, Kyere, Kwakye, and Abina (2021) argued that taxpayer education can also be done through electronic media, such as internet, T V, mobile phone, Radio, DVD and CD-ROMS, and through print media, such as using newspapers, fryers, magazines, print outs and many others on taxpayers responsibilities and rights in order to enhance tax compliance. Therefore, Jalil and Remali (2021) argues that it is important for governments and tax authorities to adopt taxpayer education campaign reforms which will work towards increasing tax compliance levels.

Machogu and Amayi (2013) studied on the effect of taxpayer education on tax compliance in Tanzania and found out that with enhanced taxpayer education, tax reporting, accurate tax due calculations and tax payments are greatly improved. Amaning et al. (2021) also found out that electronic and print media taxpayer education have positive effect on tax compliance, with stakeholder sensitisation programmes also having a significant influence on tax compliance in Ghana. It has also been found that taxpayer education that carries friendly messages are more effective than those with deterrence (Mascagni & Nell, 2022). It was also found that taxpayers utilize the information on tax education wisely, although the adoption strategy should be improved for better results (Hassan, Nawawi, & Puteh Salin, 2016). It was also found that tax knowledge among the self-employed in Malaysia has insignificant effect on tax compliance levels (Abdul Ghani, Hamid, Sanusi, & Shamsuddin, 2020).

Staff training reforms.

Sustained tax compliance is mostly achieved through factors such as the tax employees' level of tax knowledge and their level of adaptation of integrated technology, hence need for more training of tax administrative employees in these areas (Sanusi, Omar, Sanusi, & Muslichah, 2021). According to the study by Hidayat et al. (2023), there is a significant positive association between tax awareness and tax knowledge on tax compliance in personal tax reporting, hence a lot of training initiatives should be made by the governments to train the tax authority staff for improved compliance. In addition, Tolan Jr. (2012) suggests that the tax authorities could adopt a staff training program that enhances its objectives and will further improve taxpayers' protection and tax compliance. Since, it has been found that the indirect influence of tax training, which improves staff tax knowledge significantly, affects tax compliance levels (Kurniawan, 2020).

In addition, Tarmidi (2019) found that staff training that enhances understanding and ethics has a more impact on levels of tax compliance. Lack of trained staff may lead to slow processing of returns and response to tax returns' queries, which may result in low tax reporting and low tax collection by the authorities (Andreozzi, Nguyen, Hibschweiler, & Salzman, 2023). However, it could also be argued that with the "new ecosystem of digital technologies and hardware that has emerged, which parallels and interacts with the immense growth in the availability and types of data", will still there be a need for trained staff to handle the professional issues of taxation (The IAAO, 2022)? Nevertheless, human effort will still be required in tax administration and their training on tax issues is one of the ways of reducing compliance costs, such as computation, communication and planning costs (Naicker & Rajaram, 2019). It has also been found that competently trained tax staff enhances taxpayers' perception on equity and fairness which have a great influence on tax compliance levels (Inasius, 2019).

Enforcement strategies reforms.

Most governments and tax authorities have adopted different tax enforcement strategies, such as prosecutions, audits, persuasive communications and publicizing tax offenders, with an intension of improving their tax compliance levels (Okafor, 2022). One of the behavioural approach to tax compliance is the belief that some individuals may comply with their tax obligation for pride of a civic duty irrespective of the benefits that accrues to them and that this is vulnerable to enforcement process (Slemrod, 2019). This argument asserts the fact that strong punishing enforcement strategies may stop motivating the taxpayers and make them feel that they have to pay taxes because they are compelled, and not because they want to. Hence, wrong enforcement strategies may reduce tax compliance levels. Asatryan and Peichl (2017) found that punitive tax enforcement strategies only increases the tax compliance element of reporting but reduces accurate tax calculations by taxpayers reporting low incomes and inflated deduction costs, hence reduced tax payments.

Nonetheless, good enforcement strategies such as persuasive communication and involvement of the taxpayers in this reforms may work towards improving the taxpayers' tax morale and enhance tax compliance levels within the society (Slemrod, 2019). Study by Okafor (2022) found that enforcement strategies with higher persuasion and publicizing the offenders improves tax compliance levels. Dulleck et al. (2023) also found that tax government reforms that adopt on superior enforcement strategies by the tax administrators results in high tax compliance levels. However, Farrar and King (2023) found that enforcement strategies that punishes the culpable offenders will enhance tax compliance levels more those that show some kind of favouritism will on the other hand reduce tax compliance levels. Some studies have also showed that enforcement strategies have no influence on tax compliance levels (Slemrod, 2019).

Methodology.

The study adopted quantitative research approach, applying descriptive and correlation research design as used in most social science surveys (Naicker & Rajaram, 2019). The target population of the study was made up of 1736 employees of Kenya Revenue Authority, from operations staff, within the seven divisions in the Customs & Border Control Department, namely Revenue, Risk Management, Border Control, Trade Facilitation, Cargo Monitoring, Policy & Program, and Business Transformation Office (BTO) (KRA Human Resource Report, 2020). Data was collected using closed ended questions questionnaire, from a sample size of 175 employees, from all the seven divisions, selected using stratified random sampling technique. A pilot study on 10 respondents was purposively done to test the validity and reliability of the data collection tool and perform the model diagnostic test. The reliability tests showed a Cronbach's alpha values of 0.827 which confirmed the excellence of reliability of the data collection instrument (Peterson, 1994).

In the analysis of the data, both descriptive and inferential statistics were used. The inferential statistics were done using the regression model 1 below:

$$Y = 0.813 + 0.317X_1 + 0.066X_2 + 0.310X_3 + 0.167X_4 + \varepsilon \quad (1)$$

Where Y represented tax compliance, β_0 represented the constant, β_1 - β_4 model coefficients which measures the sensitivity of independent variableX_1 - X_4 to changes in tax compliance. X_1 represented system automation, X_2 represented taxpayer education, X_3 represented staff training, X_4 represented enforcement strategies and ε represented the error term of the model.

Results and discussion.

Out of the 175 questionnaires sent out to the respondents, 151 where completed resulting in a response rate of 86.3% which falls within a good level, indicating a satisfactory and representative sample size for drawing conclusions. The male respondents constituted 64.2%, while the female respondents accounted for 35.8% of the respondents. This suggests a dominance of male employees within the Kenyan tax authority, which is in line with the results of Tarmidi (2019), who also found male dominance amongst the tax accountants. The study's findings revealed that the majority of respondents fell within the age range of 36-45 years, comprising approximately 53.0% of the participants. The next significant group was those aged between 46-55 years, which was at 25.2%. Respondents between 25-35 years were the third-largest group, making up around 18.5% of the total. The group aged above 55 years was the smallest, constituting about 3.3% of the total participants.

The result of the study also revealed that the majority of respondents held undergraduate qualifications, accounting for approximately 49.0% of the respondents. Respondents with postgraduate qualifications were around 28.5% of the total respondents and those with College Diplomas/Certificates ranked third, at about 21.9%. Lastly, there was One (1) respondent with an A-Level qualification, representing about 1%. From these findings, it can be inferred that the majority of respondents possessed undergraduate degrees and higher qualifications, aligning well with the targeted population's expected educational background. In addition, the results also revealed that the majority of respondents, representing 31.8% of the respondents, had served for a period between 10-12 years. Following this, were respondents who had worked for 4-6 years who accounted for 29.8% of the total participants. Those who had worked for 2-4 years were about 15.2%. Lastly, the respondents who had worked for less than 2 years accounted for 9.9% of the respondents, while those with more than 20 years of experience were representing 13.2% of the respondents. Hence, all the respondents who had worked for the tax authority for 4 years and above accounted for 75 % of the respondents whose perception can be relied on in making tax related inferences.

4.1 Descriptive statistics.

The descriptive statistics from the primary data collected by the structured questionnaire of the study, where analysed in terms of the main study variables; system automation, taxpayer education, staff training, enforcement strategies and tax compliance levels.

System automation reforms.

Based on the descriptive statistics presented in Table 4.1, respondents were asked to rate the extent to which they believe system automation influences tax compliance in Kenya, using a Likert scale of 1-5. A grand mean of less than 3 indicates general agreement, while a mean above 2.9 suggests general disagreement.

Table 4.1: System Automation.

		Mean	*Std. Deviation*
The use of Scanners and Inland Container Depot (ICD) has enabled 24/7 hours operations	151	4.5298	.7100
The iCMS has had a significant impact in customs processing and operations alignment	151	4.3113	.6751
The Manifest Management System (MMS) has adoption has facilitated customer-focused services	151	4.2583	.7254
RECTS adoption has significantly helped curb tax evasion and improve efficient management of transit goods	151	4.0066	.9695
Customs administration modernization through iCMS system has to a large extent delivered agility, accuracy, security, and transparency in all customs operations	151	3.5629	1.1348

System Automation in customs administration has significantly satisfied the demand of improving trade facilitation	151	4.2053	1.0477
The use of Scanners and ICD has enabled for 24/7 hours operations	151	4.5298	.7100
Grand mean		*4.1101*	*0.9053*

Source: Research data, (2023)

With a calculated grand mean of 4.1101, indicated in table 4.1, it can be inferred that respondents have generally acknowledged that the parameters of system automation have been highly adopted in Kenya. This conclusion is consistent with other research findings which have found high adoption of system automation within most tax authorities and governments (Gitaru, 2017; Irefe-Esema, 2020; Wasao, 2014).

Taxpayer education reforms.

The summarized taxpayer education reforms responses in table 4.2 below, reflected a grand mean of 4.0237, indicating the participants' viewpoints. Using a Likert scale ranging from 1 to 5, it can be inferred that a majority of respondents were in agreement regarding the adoption of taxpayer education as one of the major tax authority administrative reforms in Kenya.

Table 4.2: Taxpayer Education and Tax Compliance.

		Mean	*Std. Deviation*
The has been an ongoing Taxpayer Education to increased awareness amongst taxpayers	151	3.5166	1.38012
The ongoing Taxpayer Education has focused more on how to lower compliance costs for the customs agencies and reinforced weak enforcement of tax laws.	151	3.2185	1.20496
Policies and procedures for taxpayer education are established at an adequately high level and have been successful on the ground	151	3.9007	.83070
The ongoing Taxpayer Education has facilitated an atmosphere dealings with all stakeholders for the benefit of the agency	151	4.4636	.65090
Through a successful Taxpayer Education ethical values in the operation has been significantly reinforced	151	4.5762	.60484
Through Taxpayer Education both the agency personnel and other stakeholder have the knowledge, skills and awareness required for their duties and are sufficiently motivated	151	4.4768	.62005
Grand mean		*4.0237*	*0.9082*

Source: Research data, (2023)

The results confirms the findings of other studies, such as Amaning et al. (2021), Jalil and Remali (2021) and Gitaru (2017) which also showed increased use of taxpayer education as one of the commonly adopted tax administrative reforms amongst governments and tax authorities.

Staff training reforms.

The summarized responses presented in Table 4.3 below clearly indicate that a majority of respondents were in agreement regarding the adoption of staff training reforms within the tax authority in Kenya. This agreement is reflected by the calculated grand mean of 4.3576, determined using a Likert scale ranging from 1 to 5. On this scale, a grand mean, as also used above, readings below 3 implies general agreement, while a mean above 2.9 signifies general disagreement.

Consequently, it can be inferred from the respondents' perspective that staff training is indeed one of the major tax administrative reforms that have been adopted by the Kenya government, may be with a belief that with high investment on staff training, the rate of tax evasion can be reduced and compliance levels be enhanced through strict tactical enforcement. The findings are in line with other studies which have advocated for tax authorities to embrace staff training as a means of improving efficiency in tax revenue collection (Hidayat et al., 2023; Kurniawan, 2020; Sanusi et al., 2021; Tolan Jr., 2012).

Table 4.3: Staff Training.

		Mean	Std. Deviation
There are clear training framework that clarifies how best and efficient tax system should be managed	151	4.3245	.6981
The competency level of employees at KRA has greatly improved over the last few years and this can be attributed to the sufficient staff training	151	4.6623	.5524
There are specialized training in tax administration and this has helped in tax compliance intelligence and enforcement	151	3.8344	.9827
On the job training and general training of staff have been adopted over the periods	151	4.4702	.6813
Internal training, coaching and mentoring I get is sufficient for my job performance	151	4.5166	.6203
The agency training programs and budgets are adequate	151	4.5298	.6304
Grand mean		*4.3576*	*0.7325*

Source: Research data, (2023)

Enforcement strategies reforms.

Respondents were also asked whether in their opinion the adoptions of different enforcement strategies have been embraced by the authority over the years. A Likert scale of 1-5 was used. Where; 5= Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree and 1 = Strongly Disagree. Their responses are summarized in table 4.4 below.

Table 4.4. Enforcement Strategies and Tax Compliance.

	N	Mean	Std. Deviation
Effective border patrols by the customs border officers has been adopted.	151	4.2781	.8881
Transparent audit investigation has been practiced	151	4.1060	.8259
The use of electronic scanners by the customs officers has reduced cases of custom revenue evasion	151	4.2583	.7871
Investigation of audit reports has been highly practiced since the introduction of customs reforms	151	4.1258	1.0087
Enforcement through patrols of ports of entry and other customs licensed premises.	151	3.4040	1.2284
Enhanced thorough examination of cargo, inspection for both passengers and luggage over the periods.	151	3.3444	1.1607
Grand mean	*151*	*3.9194*	*0.9832*

Source: Research data, (2023)

Upon reviewing the descriptive analysis in Table 4.4, it is evident that the majority of respondents were generally in agreement regarding the adoption of different enforcement strategies as part of the administrative reforms adopted by the Kenyan tax authority. This evaluation was also conducted using a Likert scale ranging from 1 to 5, where a grand mean below 3 indicates general agreement, and a mean above 2.9 implies general disagreement.

It can be inferred from the data that the adoption of different enforcement strategies implemented by the institution may have been believed to influence tax compliance, as indicated by the calculated grand mean of 3.9194. These findings align with those of other studies, such as Okafor (2022), Slemrod (2019) and Asatryan and Peichl (2017), which advocated for the strategic enforcement activities to be implemented by the tax authorities or governments to deter any intentions of tax evasion.

4.2 Inferential analysis.

The inferential statistics were analysed using the results of regression model 1 above. However, before the regression analysis the following diagnostic tests were performed to justify the strength of the model, which included the normality test, linearity test and collinearity test. Normality test was implemented by use of the Kolmogorov-Smirnov (K-S) tests which showed that; all the variables including tax Compliance, system automation, taxpayer education, staff training, and enforcement strategies had Kolmogorov-Smirnova Sig. > 0.05 confirming that the data was normally distributed as shown in table 4.5 below.

Table 4.5: Tests of Normality.

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Tax Compliance	.121	151	.070*
System Automation	.071	151	.061*
Taxpayer Education	.165	151	.090*
Staff Training	.121	151	.070*
Enforcement Strategies	.058	151	.200*

a. Lilliefors Significance Correction

Source: Research data, (2023)

Linearity was assessed to examine the direction, linearity, and actual strength of all relationships. This step was essential for detecting any deviations from linearity that could potentially impact correlations. The linearity of the variables was tested using Pearson's product-moment correlation coefficient and the results presented in Table 4.6 below.

Table 4.6: Correlations Analysis.

		TC	SA	TE	ST	ES
TC	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	151				
SA	Pearson Correlation	490**				
	Sig. (2-tailed)	.000				
	N	151	151			
TE	Pearson Correlation	.461**	374**	1		
	Sig. (2-tailed)	.000	000			
	N	151	151	151		
ST	Pearson Correlation	.520**	151	584**	1	
	Sig. (2-tailed)	.000	065	000		
	N	151	151	151	151	
ES	Pearson Correlation	.375**	.318**	.133	.091	1
	Sig. (2-tailed)	.000	.000	.103	.265	
	N	151	151	151	151	151

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

Source: Research data, (2023)

Where SA represents system automation (X_1), TE represents taxpayer education (X_2), ST represents staff training (X_3), ES represents enforcement strategies (X_4) and TC represents tax compliance (Y).

From the study findings, Since the Sig (2-Tailed) the Pearson's r values for all the relationships between the variables; Tax Compliance (TC), System Automation (SA), Taxpayer Education (TE), Staff Training (ST), and Enforcement Strategies (ES) showed a rather strong linear relationship with values; 0.490^{**}, 0.461^{**}, 0.520^{**}, 0.375^{**} respectively.

In addition, the study assessed multicollinearity by examining tolerance and the Variance Inflation Factor (VIF). Tolerance is a measure of collinearity that is reported by most statistical programs, such as SPSS. The Variance Inflation Factor (VIF) measures the impact of collinearity among the variables in a regression model. The VIF is calculated as 1/Tolerance and is always greater than or equal to 1. VIF values that exceed 10 are often regarded as indicating definite multicollinearity issues. However, in weaker models, values above 5.0 may also be a cause for concern (Blumberg, Cooper, & Schindler, 2014). According to Blumberg et al. (2014), when VIF values are high for any of the variables in a model, multicollinearity is likely an issue. The study results in Table 4.7 below showed a Variance Inflation Factor (VIF) of less than 3.0 for all categories of tests. Consequently, there were no significant concerns regarding multicollinearity for the variables under study.

Table 4.7. Collinearity Statistics Coefficients.

Model	*Collinearity Statistics*	
	Tolerance	*VIF*
System Automation (SA)	.789	1.268
Taxpayer Education (TE)	.589	1.699
Staff Training (ST)	.867	1.154
Enforcement Strategies (ES)	.539	1.856
a. Dependent Variable: Tax Compliance (TC)		

Source: Research data, (2023)

Multiple Regression Results.

Multiple regression analysis was conducted using the regression model 1 above, while ensuring that all assumptions of normality, linearity, and collinearity diagnostics were satisfied. Specifically, multiple regression analysis was performed to evaluate the collective impact of the investigated reforms: System Automation (SA), Taxpayer Education (TE), Staff Training (ST), and Enforcement Strategies (ES) on tax compliance. The findings of the multiple regression analysis are presented in Table 4.8 below.

Table 4.8. Multiple Regression Summary.

Model Summary

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Change Statistics*				
					R Square Change	*F Change*	*df1*	*df2*	*Sig. F Change*
	.700[a]	.491	.477	.29653	.491	35.141	4	146	.000

a. Predictors: (Constant), Enforcement Strategies (ES), Staff Training (ST), System Automation (SA), Taxpayer Education (TE)

Source: Research data, (2023)

The findings make it evident that all four components of customs office reforms - System Automation (SA), Taxpayer Education (TE), Staff Training (ST), and Enforcement Strategies (ES) - account for approximately 49.1% of tax compliance within the Kenya Revenue Authority (KRA), as indicated by the R Square (R2) value. These outcomes align with the hypothesis of deterrence theory, suggesting that individuals conform to tax regulations due to the fear of punishment or adverse repercussions. This is supported by the belief that enforcement actions, including audits, penalties, education initiatives, and public awareness campaigns, serve to dissuade potential tax evaders while fostering compliance.

Table 4.9. Analysis of Variance (ANOVA).

Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Regression	12.360	4	3.090	35.141	.000[b]
Residual	12.838	146	.088		
Total	25.198	150			

a. Dependent Variable: Tax Compliance (TC)
b. Predictors: (Constant), Enforcement Strategies (ES), Staff Training (ST), System Automation (SA), Taxpayer Education (TE)

Source: Research data, (2023)

In an effort to assess the significance of the model, the study employed ANOVA. According to Table 4.9 above, the P-value is 0000[b], which is less than 0.05, indicating that the model holds statistical significance in predicting the influence of customs office reforms—System Automation (SA), Taxpayer Education (TE), Staff Training (ST), and Enforcement Strategies (ES)—on tax compliance in Kenya. The critical F-value at a 5% level of significance is 2.70. With the calculated F-value (Value = 35.141) exceeding the critical F-value, it is evident that the overall model holds significance. The coefficients of the multiple regression models are provided in Table 4.10.

Table 4.10: Regression Coefficients.

Model	*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
	B	Std. Error	Beta		
(Constant)	.813	.308		2.643	.009
System Automation (SA)	.317	.064	.332	4.967	.000
Taxpayer Education (TE)	.066	.076	.067	.865	.388
Staff Training (ST)	.310	.055	.410	5.606	.000
Enforcement Strategies (ES)	.167	.047	.223	3.570	.000

a. Dependent Variable: Tax Compliance (TC)

Source: Research data, (2023)

The regression model reveals that, with customs office reforms—System Automation (SA), Taxpayer Education (TE), Staff Training (ST), and Enforcement Strategies (ES)—held constant at zero, employee performance is estimated to be 0.813. The study's findings indicate that System Automation (X_1) exerts the most significant influence on Tax Compliance (Y) at 31.7%, followed by Staff Training (X_3) at 31%, and Enforcement Strategies (X_4) at 16.7%. Taxpayer Education (X_2) had the least substantial impact on Tax Compliance (Y), with a coefficient of 6.6%. However, it is noteworthy that customs office administrative reforms—System Automation (SA), Staff Training (ST), and Enforcement Strategies (ES)—were statistically significant factors in relation to Tax Compliance, as their P-values were all less than 0.05. Taxpayer Education (TE) had a relatively insignificant but positive influence, as indicated by a P-value of 0.388, slightly exceeding 0.05. The t statistics play a role in assessing the relative importance of each variable in the model, guiding the identification of useful predictors. Based on the results, the resulting model can be represented as follows:

$$Y = 0.813 + 0.317X_1 + 0.066X_2 + \ 0.310X_3 + 0.167X_4 \ + \ \varepsilon$$

The results are similar with the results obtained by other studies such as Okunogbe and Santoro (2023), Mascagni et al. (2021) and Ali et al. (2017) who also found that adoption of system automation reforms significantly enhance the tax compliance levels. Also, Amaning et al. (2021), Abdul Ghani et al. (2020) and Machogu and Amayi (2013) found out that taxpayer education reforms adopted by the tax authorities have a positive impact on tax compliance levels. The studies of Andreozzi et al. (2023) and Tarmidi (2019) found a significant positive relationship between adopted tax administrative staff trainings reforms and tax compliance levels. It was also reported in the studies of Dulleck et al. (2023) and Okafor (2022) that strategic enforcement reforms have a positive significant influence on tax compliance levels. Although it was highlighted that with punitive enforcement strategies, the tax compliance levels can be compromised (Farrar & King, 2023).

Conclusion and recommendation.

The conclusion, based on the findings of the study, is that with enhanced tax administrative reforms, focusing on use of technological system automation, taxpayer education, tax administrative staff training and strategic enforcement reforms, embraced by the Kenyan tax authority, is perceived by the customs' staff to have been able to significantly influence tax compliance levels within the country. Therefore, tax authorities and fiscal policy architects can take proactive steps towards fostering a culture of compliance, thereby enhancing revenue collection and the overall efficiency and effectiveness of tax administration in Kenya. In addition, since the data and results are based on the perception of the customs' staff, who are administrative staff members of the Kenyan tax authority, the study recommended that further research be done to explore the perception of the taxpayers on this administrative reforms and also the actual data on the tax compliance levels be applied.

REFERENCES

1. Abdul Ghani, H. H., Hamid, N. A., Sanusi, S., & Shamsuddin, R. (2020). The Effect of Tax Knowledge, Compliance Costs, Complexity and Morale Towards Tax Compliance Among Self-Employed in Malaysia. *Global Business & Management Research, 12*(1), 18-32.
2. Abu Bakar, M. A. A., Palil, M. R., & Maelah, R. (2023). Governance Quality of Political Stability and Rule of Law on Tax Compliance: A Mediation Analysis of Tax Morale. *Journal Pengurusan, 67*(1), 1-14.
3. Adegboye, A. A., & Adekanla, A. O. (2023). Tax compliance attitudes in Africa: how important is natural resource endowment? *Journal of Economic Development, 48*(2), 105-122.
4. Ali, M., Shifa, A. B., Shimeles, A., & Woldeyes, F. (2017). Building fiscal capacity: the role of ICT. *African Development Bank Group, Working Paper No. 290*, 1-28.
5. Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics, 1*(3-4), 323-338.
6. Alm, J. (2019). What motivates tax compliance? *Journal of economic surveys, 33*(2), 353-388.
7. Amaning, N., Anim, R. O., Kyere, A., Kwakye, G., & Abina, S. (2021). Tax compliance among Ghanaian SMEs: How impactful is taxpayer education? *International Journal of Academic Research in Accounting, Finance and Management Sciences, 4*(1), 40-58.
8. Andreozzi, R. P., Nguyen, C. P., Hibschweiler, A. M., & Salzman, M. L. (2023). What tax litigators wish other tax professionals knew. 62-73.
9. Asatryan, Z., & Peichl, A. (2017). Responses of firms to tax, administrative and accounting rules: Evidence from Armenia. *CESifo Working Paper Series*, 1-48.
10. Becker, G. S. (1968). Crime and punishment: An economic approach. *Journal of political economy, 76*(2), 169-217.
11. Blumberg, B., Cooper, D., & Schindler, P. (2014). *Business research methods*. In.
12. Cahyonowati, N., Ratmono, D., & Juliarto, A. (2022). The Moderating Role of Social Norms on Tax Compliance Model: A Laboratory Experimental Evidence in Indonesia. *Contemporary Economics, 16*(4), 410-423.
13. Carrillo, P., Pomeranz, D., & Singhal, M. (2017). Dodging the taxman: Firm misreporting and limits to tax enforcement. *American Economic Journal: Applied Economics, 9*(2), 144-164.
14. Devos, K. (2014). Tax Compliance Theory and the Literature. In Factors Influencing Individual Taxpayer Compliance Behaviour (pp. 13-65): Springer Netherlands, Dordrecht.
15. Dulleck, U., Fooken, J., Moy, N., & Torgler, B. (2023). Cash and the hidden economy: Experimental evidence on fighting tax evasion in small business transactions %A Chan, Ho Fai. *Journal of Business Ethics, 185*(1), 89-114.

16. Dumiter, F. C. (2023). The Correlation between Double Taxation Conventions, Tax Compliance, and Tax Evasion. Empirical Evidence from Oecd Countries. *Technological and Economic Development of Economy, 29*(3), 902-948. doi:10.3846/tede.2023.18260.
17. Farida, A., & David, W. o. (2018). Tax costs and tax compliance behaviour in Kenya. *Journal of Accounting and Taxation, 10*(1), 1-18. doi:10.5897/jat2017.0283.
18. Farrar, J., & King, T. (2023). To Punish or Not to Punish? The Impact of Tax Fraud Punishment on Observers' Tax Compliance. *Journal of Business Ethics, 183*(1), 289-311.
19. Gitaru, K. (2017). The Effect of Taxpayer Education on Tax Compliance in Kenya.(a case study of SME's in Nairobi Central Business District). *Munich Personal RePEc Archive*(MPRA Paper No. 80344).
20. Hassan, N., Nawawi, A., & Puteh Salin, A. S. A. (2016). Improving tax compliance via tax education - Malaysian experience. *Malaysian Accounting Review, 15*(2), 243-262.
21. Hidayat, R., Nurbaiti, B., & Fachrian, Z. (2023). Influence of Tax Awareness and Knowledge Against the Compliance of Personal Tax Reporting with Religiosity as an Intevening Variable at Auliya Insan Utama Foundation. *Journal of Accounting, Business and Management (JABM), 30*(1), 112-123..
22. Inasius, F. (2019). Factors influencing SME tax compliance: Evidence from Indonesia. *International Journal of Public Administration, 42*(5), 367-379.
23. Irefe-Esema, J. (2020). Automation and Tax Compliance: Empirical Evidence from Nigeria. *American Journal of Theoretical and Applied Business, 8*(3), 45-58.
24. Jalil, A., & Remali , A. M. (2021). Does Education Influence Tax Compliance? *Global Business & Management Research, 13*(Special Issue).
25. Kenya Revenue Authority. (2022). *Now & Beyond: Enhanced Service Delivery to Improve Tax Compliance*. Retrieved from Kenya.
26. Kim, S., & Kim, T. (2018). Tax Reform, Tax Compliance and State-building in Tanzania and Uganda. *Africa Development / Afrique et Développement, 64*(2), 35-64.
27. Kurniawan, D. (2020). The influence of tax education during higher education on tax knowledge and its effect on personal tax compliance. *Journal of Indonesian Economy and Business: JIEB, 35*(1), 57-72.
28. Li, J., Wang, X., & Wu, Y. (2020). Can government improve tax compliance by adopting advanced information technology? Evidence from the Golden Tax Project III in China. *Economic Modelling, 93*, 384-397.
29. Machogu, C. G., & Amayi, J. B. (2013). The effect of taxpayer education on voluntary tax compliance, among SMES in Mwanza City- Tanzania. *International Journal of Marketing, Financial Services & Management Research, 2*(8), 12-23.
30. Mascagni, G., Mengistu, A. T., & Woldeyes, F. B. (2021). Can ICTs increase tax compliance? Evidence on taxpayer responses to technological innovation in Ethiopia. *Journal of Economic Behavior & Organization, 189*, 172-193.
31. Mascagni, G., & Nell, C. (2022). Tax Compliance in Rwanda: Evidence from a Message Field Experiment. *Economic Development & Cultural Change, 70*(2), 587-623.
32. Musgrave, R. A. (1985). A brief history of fiscal doctrine. In *Handbook of public economics* (Vol. 1, pp. 1-59): Elsevier.
33. Naicker, Y., & Rajaram, R. (2019). Factors that influence tax compliance of SMEs in South Africa. *Acta Universitatis Danubius. Administratio, 10*(2), 94-111.
34. Njogu, D., & Nteere, K. (2021). Effect of domestic tax reforms on tax compliance among micro and small enterprises in Nairobi county, Kenya. *International Journal of Business Management and Processes, 5*(4), 67-80.
35. Okafor, O. N. (2022). Shaming of tax evaders: Empirical evidence on perceptions of retributive justice and tax Compliance intentions. *Journal of Business Ethics, 183*, 377–395.
36. Okunogbe, O., & Santoro, F. (2023). The Promise and Limitations of Information Technology for Tax Mobilization. *The World Bank Research Observer, 38*(2), 295-324.
37. Oladipo, O., Nwanji, T., Eluyela, D., Godo, B., & Adegboyegun, A. (2022). Impact of tax fairness and tax knowledge on tax compliance behavior of listed manufacturing companies in Nigeria. *Problems and Perspectives in Management, 20*(1), 41-48. doi:10.21511/ppm.20(1).2022.04.
38. Ouyang, S., Fang, Y., & Yang, Z. (2022). Enterprise Financial and Tax Risk Management Methods under the Background of Big Data. *Mathematical Problems in Engineering, 2022*, 1-13.
39. Owens, J. (2006). Fundamental tax reform: an international perspective. *National Tax Journal, 59*(1), 131-164.
40. Paleka, H., Karanović, G., & Badulescu, D. (2022). Tax Compliance Determinants: Empirical Evidence from Croatia. *Technological and Economic Development of Economy, 28*(6), 1915-1932. doi:10.3846/tede.2022.18130
41. Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of consumer research, 21*(2), 381-391.
42. Prichard, W., Custers, A. L., Dom, R., Davenport, S. R., & Roscitt, M. A. (2019). Innovations in tax compliance: Conceptual framework. *World Bank Policy Research Working Paper*(Policy Research Working Paper 9032), 1-49.

43. Sanusi, S., Omar, N., Sanusi, Z. M., & Muslichah, I. (2021). The Application of the Responsive Regulation Theory on Indirect Tax Compliance Among Small and Medium Enterprises in Malaysia. *Management & Accounting Review, 20*(2), 137-160.
44. Slemrod, J. (2019). Tax Compliance and Enforcement. *Journal of Economic Literature, 57*(4), 904-954.
45. Slemrod, J., Collins, B., Hoopes, J. L., Reck, D., & Sebastiani, M. (2017). Does credit-card information reporting improve small-business tax compliance? *Journal of Public Economics, 149*, 1-19.
46. Steenbergen, V. (2017). Reaping the Benefits of Electronic Billing Machine. *Working Paper, International Growth Centre*, 1-27.
47. Tarmidi, D. (2019). Tax compliance: Impact of employee internal factors, moderated by tax uncertainty. *International Journal of Academic Research Business and Social Sciences, 9*(5), 294-304.
48. The IAAO, A. I. T. F. (2022). A Review of the Methods, Applications, and Challenges of Adopting Artificial Intelligence in the Property Assessment Office. *Journal of Property Tax Assessment & Administration, 19*(1), 21-80.
49. Tolan Jr., P. E. (2012). It's about time: registration and regulation will boost competence and accountability of paid tax preparers. *Virginia Tax Review, 31*(3), 471-544.
50. Wasao, D. (2014). *The effect of online tax system on tax compliance among small taxpayers in east of Nairobi tax district.* (Masters of Science in Finance), University of Nairobi, University of Nairobi Repository.
51. Ya'u, A., Miraz, M. H., Saad, N., Bala, H., Rangasamy, D., Olaniyi, O. N. u., & Mustapha, U. A. (2023). Effects of Economic Deterrence Theory and Environmental Regulation on Tax Evasion: Evidence from Energy Sector. *International Journal of Energy Economics and Policy, 13*(5), 289-302.