

# Analysis of Factors Affecting Tax Compliance in Real Estate Sector: A Case of Real Estate Owners in Nakuru Town, Kenya

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## Abstract

The main issue faced by all tax authorities is that it has never been easy to persuade all taxpayers to comply with the regulations of a tax system. Real estate sector is one of the fastest growing sectors of the economy in Kenya yet taxes collected from this sector have continually been on decline for the last five years. The study specifically sought to determine the effect of tax compliance cost, tax education and knowledge, fines and penalties and perceived opportunity for tax evasion on tax compliance in the Real Estate sector. The study was guided by Theory of Planned Behavior. The study used explanatory research design. A sample size of 271 was drawn from the target population of 841 real estate investors. Data was collected using structured questionnaire, coded, keyed and analyzed quantitatively using both descriptive and inferential statistics. The study findings showed that compliance cost had the negative effect on level of tax compliance. However, tax knowledge and education had positive effect on level of tax compliance among real estate investors. Similarly, fines/penalties had positive effect on level of tax compliances, while perceived opportunity for tax evasion had negative effect. The study provides some preliminary evidence that imposing fines/penalties and provision of tax knowledge and education among real estate investors will improve tax compliance. Conversely, high compliances cost and high opportunity for tax evasion will reduce tax compliance among real estate investors. Thus, tax compliance cost should be in a way that does not encourage taxpayers to evade tax. There should be stiff enforcement of fines and penalties to deter tax evasion. Additionally, tax authorities should simplify processes involved in filling of returns and payment of taxes.

**Keywords:** Taxation, Tax Compliance, Real Estate

## 1. Introduction

Taxes play an important role in the budget of any economy and one of the main reasons why the government imposes taxes is to generate income to manage the economy and redistribute resources. Over the years, the Kenya government has undertaken various revenue administration reforms aimed at enhancing revenue collection (Masinde and Makau, 2010).

One of the measures that have been implemented in order to increase revenue collection in Kenya was the introduction of self-assessment systems (SAS) in 1992. The objectives of this system was to increase voluntary compliance, reduce tax authorities' burden of assessing tax returns and increase tax collection efficiency (reduce tax collection costs) (Masinde and Makau, 2010).

However despite various administrative reforms, levels of tax compliance have remained quite low. A study conducted by KRA, KIPPRA and the Treasury, based on 1999/2000 data revealed that VAT payment compliance was as low as 55% while return lodgment compliance was 65% (Masinde and Makau, 2010).

Tax noncompliance is a substantive universal phenomenon that transcends cultural and political boundaries and takes place in all societies and economic systems. There many studies that explain the behavior of tax compliance in a more realistic situation. They focus on the determinants of tax compliance, respectively on economic and non-economic factors.

Tax non-compliance is an area of concern for all government and tax authorities, and it continues to be an important issue that must be addressed. Regardless of time and place, the main issue faced by all tax authorities is that it has never been easy to persuade all taxpayers to comply with the regulations of a tax system. In contrast to the majority of employed people - who in many countries are paid net salaries with taxes being deducted at source - real estate investors often need to self-assess and self-report their income and pay taxes "out of their pocket." Real estate investors not only pay their income tax but need to take account of various types of business taxes such as corporate tax, property taxes, and payroll taxes; they need to collect sales taxes such as VAT; and they need to withhold taxes such as personal income taxes in the case of having at least one employee (Christensen et al., 2001).

While previous studies on tax compliance have focused on the general factors affecting tax compliance, the focus of this study is on the factors affecting tax compliance in the real estate sector. The study specifically

sought to determine the effect of tax compliance cost, tax education and knowledge, fines and penalties and perceived opportunity for tax evasion on tax compliance in the real estate sector.

The Government of Kenya relies on tax revenues both for its recurrent and development expenditure. In pursuit of this, Kenya Revenue Authority (KRA) has been mandated to assess and account for all taxes due to the government (KRA Act cap 469). Tax compliance level which is internal factor affecting tax revenue not only undermines tax administration infrastructure but also makes the tax base narrow and inequitable. When the level of compliance is low, government revenue collections always fall behind targets. During the 2011/2012 financial year, KRA was able to collect Shs 707.4 billion against a target of 717 billion (KRA Fourth Quarter report 2011/2012). According to figures from KRA, rental income declaration declined from 5 Billion in 2007 to 1 Billion in 2009. This is despite the imposition of VAT on commercial rent by the Finance Act of 2007/2008 that would have led to higher tax revenue. In the Budget speech of 2012/2013, the Finance Minister instructed KRA to intensify revenue collection in this sector. There is therefore a need to assess the level of tax consciousness, review factors causing non-compliance and capture the expectations of the taxpaying public with a view to formulating strategies aimed at enhancing tax collection in this sector. It is against this background that this study has been undertaken with the aim of analyzing factors affecting tax compliance in the real estate sector and recommend measures to be put in place by the government and KRA to enhance tax collection in this booming sector.

### 1.1 Research Objectives

- i. To determine the effect of compliance cost on tax compliance level
- ii. To examine the effect of tax knowledge and education on tax compliance level
- iii. To assess the effect of fines and penalties on tax compliance level
- iv. To evaluate the effect of perceived opportunity for tax evasion on tax compliance level

### 1.2 Research Hypotheses

- HO<sub>1</sub>: Compliance cost has no significant effect on tax compliance level  
HO<sub>2</sub>: Tax knowledge and education have no significant effect on tax compliance level  
HO<sub>3</sub>: Fines and Penalties have no significant effect on tax compliance level  
HO<sub>4</sub>: Perceived opportunity for tax evasion has no significant effect on tax compliance level

## 2. Methodology

The study was conducted in Nakuru town which is located in the Central Rift valley region in Kenya. The area was selected because it is one of the fastest growing towns in Kenya in terms of population and economic activities especially real estate. This study employed qualitative and quantitative research design that enabled the researchers collect requisite information about the factors that affect the tax compliance among real estate investors. The target population consisted of all the real estate investors within Nakuru Town during the study period. The study sought information from the owners and managers of each real estate. According to Nakuru Municipal council records, there were 841 registered real estate investors in Nakuru town as at December, 2012.

The study used Yamane (1967:886) simplified formula to calculate sample sizes.

$$n = N / (1 + Ne)$$

Where, n = sample size, N=population size, e=0.05 is the level of precision

This formula was used to calculate the sample sizes for the study as follows:

$$n = 841 / 1 + 841(0.05 * 0.05) = 271$$

The study employed simple random sampling technique in the selection of the sample. This study used both primary and secondary data. Information was obtained from the real estate investors using questionnaires and observation to generate primary data, while the secondary data was obtained from existing databases/literature such as Kenya Revenue Authority (KRA) revenue reports and Kenya National Bureau of Statistics reports. The data collected included information on real estate sector, tax compliance in this sector, biographical information of the respondents, proxy variables representing cost of tax compliance, tax knowledge and education, perceived opportunity for tax evasion and fines and penalties. A combination of data collection techniques was employed in the study to gather both primary and secondary data which is both qualitative and quantitative in nature.

Questionnaires received from respondents and interview schedules were checked for completeness with repeat calls being made for incomplete questionnaires to maintain the number of respondents. Categorization and coding was then done and data entered into SPSS for windows version 20 for analysis. Both descriptive and inferential tests were used in the analysis. Data was described or summarized using descriptive statistics such as mean and frequencies, which helped in meaningfully describing the distribution of responses. Various inferential statistics was used to infer population characteristics from the sample. Pearson's correlation coefficient was used to establish relationships between variables.

A Multiple linear regression model was used to predict tax compliance using the four independent variables in the study: tax compliance cost, tax knowledge and education, fines and penalties and perceived opportunity for

tax evasion. In addition, the  $\beta$  coefficients for each independent variable generated from the model was subjected to a z –test, in order to test each of the hypotheses under study. The regression model used to test is shown below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where;

Y	- Tax compliance
$\alpha$	- Constant
$\beta_1, \beta_2, \beta_3$ and $\beta_4$	- Coefficient indicating rate of change of tax compliances as tax compliance cost, tax knowledge and education, fines and penalties and perceived opportunity for tax evasion changes
X1	- tax compliance cost
X2	- tax knowledge and education
X3	- tax fines and penalties
X4	- perceived opportunity for tax evasion
$\epsilon$	- Error term

All the above statistical tests were analyzed using the Statistical Package for Social Sciences (SPSS), version 20. All tests were two-tailed. Significant levels were measured at 95% confidence level with significant differences recorded at  $p < 0.05$ .

### 3. Results and Findings

#### 3.1 Demographic Information

Demographic information shows the characteristics of the elements in the sample size: As such the Researchers sought to establish the general information of the respondents, which forms the basis under which the interpretations are made. Demographic factor one analyzed the gender of the respondents. This information was necessary to enable the Researchers to obtain information on whether the respondents were either male or female. Seventy two (72%) of the respondents were male whereas twenty eight percent (28%) were female.

Second demographic factor showed the age brackets of respondents. Whereby, (5.2%) of the respondents are between 20-30 years of age, (7.4%) are between 30-40 years, (24.7%) are in the 40-50 age bracket. Respondents between 50-60 years are (47.6%) and those above 60 years of age are fifteen point one percent (15.1%). This result illustrates that most of the real estate investors are generally above 40 years.

Another demographic factor examined was the academic qualifications of the respondents. The information is necessary to enable the Researchers to know whether the respondents are educated or illiterate. Information on the academic qualifications of the respondents is statistically shown in table 4.1 below. It reflects the academic qualifications of the respondents. Sixteen point six percent (16.6%) have a high school certificate; Thirty two point eight percent (32.8%) have a Degree/Professional, forty two point four percent (42.4%) hold a Certificate/diploma and eight point two percent (8.2%) have a post graduate qualification. The study indicates that majority of respondents in the study area are fairly educated.

#### 3.2 Information about Real Estates

Research findings on information about Real Estates revealed that majority of the estates have been in operation for between 6-10 years (47.6%) followed by those that have been in operation for 11-20 years (24.7%), 0-5 years (15.1%) and estates that have been in operation for over 20 years (12.5%).

Findings on the annual turnover affirmed that the turnover below 5 million was sixty one point six percent 61.6% whereas turnover between 5-10 million was twenty four point four percent 24.4%. In addition, annual turnover between 11-15 million was eight point one percent 8.1% and annual turnover between 16-20 million was four point two percent 4.2%. Annual turnover above 21 million was one point eight percent 1.8%. The results reveal that most of the real estate investors have their annual turnover below 5 million. (See Table 1 attached as an appendix)

#### 3.3 Tax characteristics

Tax characteristics were inquired from respondents. The use of E-filing was also inquired from the respondents. Majority of the respondents were found to have never used E-filing as shown by fifty five percent (55%) while those who had used E-filing were forty five percent (45%). Respondents found to be using E-filing have been using it between 0-1 years at fifty five point seven percent (55.7%), between 1-2 years twenty five point four percent (25.4%) and those who have used E-filing for between 2-3 years are thirteen point nine percent (13.9%) while those having filed over 3 years are five percent (5%).

Respondents found to have attended formal taxation course organized by KRA or university or any other institution were twenty six point two percent (26.2%) against seventy three point eight percent (73.8%) who have never attended any taxation course.

In relation to being audited, majority of respondents seventy eight point six (78.6%) have never been audited while only twenty one point four percent (24.1) have been audited. Among those who have been audited, sixty nine percent (69%) have been audited between 0-1 times whereas thirty one percent (31%) have been audited 2-3

times.

Findings further reveal that respondents who have been penalized by KRA because of not filling a tax return are seventeen percent (17%) while those that have never been penalized are eighty three percent (83%). On matters pertaining filling of tax returns, fourteen point one (14.1%) percent of the respondents have been penalized by KRA because of late filing of returns whereas a majority eighty five point nine (85.9%) have never been penalized.

In relation to income declaration, (80.8%) of the respondents were involved in under reporting of income whereas (19.2%) declared the correct income. The research also established that (91.9%) of the respondents were involved in over claiming deductions whereas (8.9%) gave the accurate claim of deductions. (See Table 2 attached as an appendix)

### 3.4 Tax compliance level

The results in Table 4 reveal that most of real estate owners do not file their tax returns on time (mean = 2.9). They also do not pay the right amount of taxes on time (mean = 2.71). These results indicate low levels of tax compliance among the real estate investors. From the above findings, monitoring compliance requires establishing and maintaining current accounts of taxpayers and management information systems covering both ultimate taxpayers and third party agents such as banks or tax consultants involved in the tax system as well as appropriate and prompt procedures to detect and follow up on non-filers, nil filers and delayed payments. Such measures require establishing both a reasonable risk of detection as well as applying penalties effectively. The ideal approach is to combine these measures so as to maximize their effect on compliance as it were, to move a country from a "low compliance to a high compliance environment" (Masinde and Makau, 2010). (See Table 3 attached as an appendix)

### 3.5 Tax Compliance Cost

Findings on tax compliance cost shows that respondents were satisfactory on the cost of filling a tax return (mean=2.95) which confirms that the respondents agreed that the cost of filling a tax return is fair, also respondents believe the cost of hiring a tax agent is fair (mean= 2.87). Similarly, the cost of travelling in order to fill a return is fair (mean=3.46). (See Table 4 attached as an appendix)

### 3.6 Fines and Penalties

Findings on Fines and Penalties reveal that the enforcement is not very strong (mean=3.37), respondents were not certain on whether the penalty is lower than their tax saving due to not complying with tax laws (mean=3.08). Finally, respondents seemed unsure on whether serious enforcement and penalty by the KRA may result if they do not comply (mean=3.06). (See Table 5 attached as an appendix)

### 3.7 Perceived Opportunity for Tax Evasion

Regarding findings on perceived opportunity for tax evasion in Table 6, respondents agreed that since supporting documents do not need to be sent to the KRA, they can manipulate the figure in the tax return (mean =4.27), respondents were not certain if they are detected not reporting the exact income, that the tax authority is tolerant towards the offence and most probably it will escape without any punishment (mean=2.78), respondents disagreed that the tax authority has limited capability to investigate all income reported to them so they have an opportunity not to report their exact income (mean=2.4) and they were uncertain on the probabilities of being detected by the tax authority for not declaring the exact income that they receive (mean=2.74). In general, findings on perceived opportunity for tax evasion was found to be (mean=3.126). (See Table 6 attached as an appendix)

### 3.8 Tax Knowledge and Education

Further, tax knowledge and education was inquired from the respondents. From the study results, respondents are not certain on how to declare actual income received from all sources to the tax authority (mean=2.77). Also, respondents are not certain on how to keep records/documents pertaining to income and expenditure for a period of seven years after submission of the tax return (mean=2.62) and they seem not to understand that they should pay tax due within the prescribed period from the date of issue of the notice of assessment or within the stipulated period (mean=2.93). It was revealed that respondents are not very sure that they should obtain a tax payer identification pin number (mean=2.83). Further, respondents seem not to know which income should be included or excluded in determining the taxable income (mean=2.51). Generally tax knowledge and education was (mean=2.7336). (See Table 7 attached as an appendix)

### 3.9 Pearson Correlations results

Correlation statistics is a method of assessing the relationship between variables/factors. To be precise, it measures the extent of association between the ordering of two random variables although; a significant correlation does not necessarily indicate causality but rather a *common linkage* in a sequence of events. Thus, the study analyzed the relationships that are inherent among the independent and dependent variables as well as among the independent variables/ factors. The results regarding this were summarized and presented in Table 8. Pearson Correlations results in Table 8 (Attached as an appendix) showed that tax knowledge and education was positively and significantly correlated to tax compliance ( $r=0.675$ ,  $p<0.05$ ). Thus tax knowledge and education



had 67.5% positive relationship with tax compliance. Tax fines and penalties was the second component to be positively related with tax compliance ( $r = 0.710$ ,  $\rho < 0.05$ ) an indication that tax fines and penalties had 71% significant positive relationship with tax compliance. Perceived opportunity for tax evasion was significantly associated with tax compliance as shown by ( $r = -0.269$ ,  $\rho < 0.05$ ) implying that perceived opportunity for tax evasion had a 26.9% negative relationship with tax compliance.

Finally, tax compliance cost was significantly positively correlated to tax compliance ( $r = -0.613$ ,  $\rho < 0.05$ ). Therefore, Tax compliance cost had 61.3% negative relationship with tax compliance.

### 3.10 Regression Model

A Multiple linear regression model was used to predict tax compliance in the study. The prediction was carried out basing on the effect of the four independent factors: tax compliance cost, tax knowledge and education, tax fines and penalties and perceived opportunity for tax evasion. In addition, the b coefficients for each independent variable generated from the model was subjected to a t-test, in order to test each of the hypotheses under study. The study thus came up with a model summary, the anova for the effect sizes and the regression model as presented in Tables 9, 10 and 11. (Attached as an appendix)

From Table 9, the findings indicated that the model correlation coefficient was 0.804 which indicated that the model predicted over 80% of the change in the independent variable. This relationship was significant considering the coefficient of determination value of 0.647. The model was adequate in this case as indicated by the Durbin-Watson statistic value of 1.929 which is in the range of 1 to 2.

The ANOVA model in Table 10 shows that the regression model was also adequate. The effect size of the regression model was shown to be over 75 that contributed by the residual mean sum of squares. The F-ratio was 75.739 at 4 degrees of freedom which are the four factors. This represented the effect size of the regression model and was significant with a p-value of 0.000.

### 3.11 Coefficients Model

The regression results in Table 11 show that each of the predicted parameters in relation to the independent factors were significant;  $\beta_1 = -0.317$  (p-value = 0.000 which is less than  $\alpha = 0.05$ ) which implies that we reject the null hypothesis stating that there is no significant relationship between tax compliance cost and tax compliance level. This indicates that for each unit increase in the negative effect of tax compliance cost, there is 0.317 units decrease in tax compliance level. Furthermore, the effect of tax compliance cost was stated by the t-test value = 6.531 which implies that the standard error associated with the parameter is less than the effect of the parameter.

The table also shows that  $\beta_2 = 0.331$  (p-value = 0.000 which is less than  $\alpha = 0.05$ ) which indicates that we reject the null hypothesis stating that there is no significant relationship between tax knowledge and education and tax compliance. This implies that for each unit increase in tax knowledge and education, there is up to 0.331 unit increase in tax compliance. Also the effect of tax knowledge and education is shown by the t-test value of 6.557 which implies that the effect of tax knowledge and education surpasses that of the error by over 6 times.

The value of  $\beta_3 = 0.111$  (p-value = 0.021 which is less than  $\alpha = 0.05$ ) which implies that we reject the null hypothesis stating that there is no significant relationship between tax fines and penalties and tax compliance. This indicates that for each unit increase in tax fines and penalties, there is up to 0.111 units increase in tax compliance. The effect of tax fines and penalties is stated by the t-test value = 2.334 which indicates that the effect of tax penalties and fines is over 2 times that of the error associated with it.

The findings also showed that  $\beta_4 = -0.194$  (p-value = 0.000 which is less than  $\alpha = 0.05$ ) which implies that we reject the null hypothesis that states that there is no significant relationship between perceived opportunity for tax evasion and tax compliance levels. This implies that there is up to 0.194 unit decrease in tax compliance for each unit increase in perceived opportunity for tax evasion.

The rule of thumb was applied in the interpretation of the variance inflation factor (VIF). From Table 11 (Attached as appendix), the VIF for all the estimated parameters was found to be less than 4 which indicate the absence of multi-collinearity among the independent factors. This implies that the variation contributed by each of the independent factors was significantly independent and all the factors should be included in the prediction model.

### 3.12 Discussion of the findings

As stated by **Hypothesis 1** that tax compliance cost has no significant effect on tax compliance level, research findings show inconsistency with the hypothesis hence, compliance cost was negatively correlated to tax compliance level (coefficient estimate ( $\beta_1 = -0.317$ , p value = 0.000)). High compliance cost has been found to diminish the competitiveness of the country in terms of taxation attractiveness thus tax authorities are interested in making the tax legislations simpler in order to avoid this situation. This study finding is in agreement with Slemrod and Yitzhaki (1996) that compliance cost is one of the three elements of social costs of taxation which are incurred when purchasing power is transferred from the taxpayers to the government. As Hijattullah and Pope (2008) argue compliance costs include costs that are incurred by a company, but are beyond the control of its management hence tax compliance cost is likely to affect tax compliance in the real estate sector.

In terms of internal and external costs, (Blumenthal and Slemrod, 1996) argue that Internal costs are generated

by the accounting and administration department of the company who will prepare all the required information by the fiscal authorities and consult when it is deemed necessary. External costs are generated from the service of lawyers, accountants and other advisors and are easier to identify and quantify as compared to the internal costs, these factors contribute to compliance cost and affect tax compliance by real estate owners.

**Hypothesis 2** states that tax knowledge and education has no significant effect on tax compliance. Research findings are not in agreement with the hypothesis (coefficient estimates ( $\beta_2 = 0.331$ , p value =0.000). A high level of tax knowledge and education contributes immensely to tax compliance. This is in agreement with studies by (Kasipillai, Norhani, and Noor, 2003) that knowledge relates to compliance due to its effect on understanding about taxation regulations and information pertaining to the opportunity to evade tax.

A study by (Mohd, 2010) asserts that tax knowledge is necessary to increase public awareness on taxation rules and the role of taxation in national development. Once individuals have the knowledge pertaining the importance of taxation, they will be influenced to comply without any enforcements or pressure on them. In addition attitude towards taxation can also be improved through taxation knowledge, thus when a taxpayer has a positive attitude toward tax, this may influence him or her to comply (Eriksen&Fallan, 1996). Education programs organized by the tax authority or other public education institutions are needed to enhance taxpayers' ability to understand Self-assessment system since it involves calculation of amount of tax needed to be paid. If tax knowledge is enhanced tax payers will readily accept forms of payment of tax like the SAS (Self-Assessment system). (Chan et. al. 2000) argues that greater education leads to high compliance since individuals who are well educated understand well the tax system, have high levels of moral development and thus they are highly likely to comply. Findings from the tax administration view point revealed that educating taxpayers on their social responsibility to pay tax would in turn influence tax payers to comply with the payment of tax. Therefore, assisting taxpayers by ensuring proper flow of quality information through media and educating them results in high compliance in paying tax hence potential to yield greater revenue than if it were spent on enforcement activities.

**Hypothesis 3** states that tax fines and penalties have no significant effect on tax compliance. Research findings are not in agreement with the hypothesis since fines and penalties has coefficient estimate ( $\beta_3 = 0.111$ , p value =0.021), hence hypothesis 3 does not hold. Higher fines simply reduce the cases of tax evasion thus encouraging tax compliance. This is in agreement with studies by Friedland et al. (1978) that compliance was strongly affected by the amount of fines than by audit probabilities. Studies by Allingham and Sandmo (1972) indicate that penalties as well as audit probability have an effect on tax compliance, thus the higher the penalty and the potential audit probability the greater discouragement for potential tax evasion.

**Hypothesis 4** states that perceived opportunity for tax evasion has no significant effect on tax compliance. Research findings show inconsistency with the hypothesis; hence perceived opportunity for tax evasion was correlated to tax compliance, (coefficient estimates ( $\beta_4 = -0.194$ , p value =0.000). Opportunities to evade tax may lead to an increase in intended as well as unintended non-compliance. The study findings are in agreement with Robbenet *al.* (1990b) that an experimentally induced opportunity to cheat increased non-compliance regardless of whether the participants actually intended to be non-compliant or not. (Antonides and Robben, 1995) assert that many taxpayers perceive opportunities for evading small amounts while only a minority perceive opportunities for evading larger amounts.

The study findings are also in agreement with (Slemrod *al.* (2001) in a study where taxpayers were informed that their tax files would be closely examined. Small business owners who had an opportunity to evade payment of tax reacted to this message by increasing their tax payment in order to avoid errors. This confirms that those taxpayers facing high opportunities for evasion might feel less certain about how to pay their taxes correctly. Consequently, threats may also elicit partly unintentional over-reporting; just to be on the safe side (Ahmed and Braithwaite, 2005). It is therefore noted that opportunity for tax evasion is a key constituent of Real Estate investors' tax compliance.

### 3.13 Summary of findings

Findings on gender revealed that there are more male than females among the respondents indicating that more men than female are real estate investors. It was also affirmed that majority of the respondents were between the age bracket of 50-60 years and they. It was also brought to light that majority of respondents were fairly educated, those with a diploma contributing the highest percentage followed by those with an undergraduate degree affirming that there were moderate levels of literacy among the respondents.

Findings on information about the real estate's affirmed that majority of the estates have been in operation for between 6-10 years confirming the recent boom in the sector. In terms of annual turnover, majority of the estates have a turnover below 5 million.

Findings on tax characteristics acknowledges that the use of E-filing was unknown to most of the respondents and majority of the respondents have never been audited as compared to those who have been audited and a small percentage of the respondents have attended a formal taxation course organized by KRA or university.

On matters pertaining being penalized by KRA as a result of not filing tax returns, majority of the respondents

have not been penalized. The study also found out that most of the respondents under reported their income and over claimed deductions.

A determination of the effect of compliance cost on tax compliance level revealed a strong negative correlation meaning that compliance cost has a significant effect on the level of tax compliance. This means that higher compliance costs will reduce tax compliance levels.

The study also examined the effect of tax knowledge and education on tax compliance level. The findings show a strong positive relationship between the two implying that enhanced knowledge on taxation will in turn enhance tax compliance.

An assessment of the effect of fines and penalties on tax compliance levels revealed that there is a significant positive relationship between them. This implies that an effective use and enforcement of fines and penalties on tax offenders will enhance levels of tax compliance.

The study having evaluated the effect of perceived opportunity for tax evasion on tax compliance level concluded that there is a negative relationship between the two implying that a perceived opportunity for tax evasion will lead to lower levels of tax compliance.

#### **4. Conclusion and Recommendations**

##### *4.1 Conclusion*

These study findings provide direct evidence that tax compliance cost is a contributory factor in tax compliance, and an indication of its magnitude effect. From the study findings there is enough proof to conclude that tax compliance cost is associated with high levels of tax compliance.

The study also provides some preliminary evidence that fines and penalties play a vital role in improving tax compliance. Specifically, for a tax system with fair tax rates of fines and penalties, tax compliance is likely to improve.

The study results also inferred that perceived opportunity for tax evasion has a significant effect on tax compliance. This is because through opportunity, induced opportunity to cheat increased non-compliance regardless of whether the participants actually intended to be non-compliant or not.

Finally, the study concludes that tax knowledge and education has a significant effect on tax compliance. It is therefore prudent for the tax system to enhance education on how to file tax returns and the importance of paying tax.

##### *4.2 Recommendations*

From the study findings it was deduced that tax compliance cost has a profound effect on tax compliance. The findings suggest tax systems with low tax compliance costs are most likely to be complied with. Therefore, the tax compliance cost should be in a way that does not encourage taxpayers to evade tax.

The study finds strong support for the argument that fines and penalties impacts highly on tax compliance, thus there should be moderate levels of fines and taxes to employ. This way, real estate owners will be encouraged to comply since they will keep accurate records for taxation purposes in order to avoid fines and penalties.

Also, tax knowledge and education has a significant effect on tax compliance. Thus the tax system should not only provide a clear and simple guideline on how to fill tax returns but also enhance taxpayer education services to enable the taxpayers understand their rights and obligations as taxpayers. This way tax compliance levels will increase.

Finally, perceived opportunity for tax evasion has a significant effect on tax compliance, therefore the tax system should target individuals at all levels of income to seal loopholes that may encourage tax evasion. Tax systems should also enhance surveillance and monitoring to ensure that all the taxpayers are brought into the tax net. Specifically, for real estate investors, mapping of all the properties should be done to ensure that they are recruited into the tax net.

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## Appendix

Table 1: Information about Real Estates

		Frequency	Percent
Years in operation	0-5	41	15.1
	6-10	129	47.6
	11-20	67	24.7
	Over 20	34	12.5
	<b>Total</b>	<b>271</b>	<b>100</b>
Annual turnover	Below 5 million	167	61.6
	5-10 million	66	24.4
	11-15 million	22	8.1
	16-20 million	11	4.1
	Over 21 million	5	1.8
	<b>Total</b>	<b>271</b>	<b>100</b>



Table 2: Tax characteristics

		Frequency	Percent
have you ever used E-filing	Yes	122	45
	No	149	55
	<b>Total</b>	<b>271</b>	<b>100</b>
if yes how long have you been using E-filing to file your tax returns	0-1 years	68	55.7
	1-2 years	31	25.4
	2-3 years	17	13.9
	Over 3 years	6	5.0
	<b>Total</b>	<b>122</b>	<b>100</b>
have you ever attended any formal taxation course organized by KRA or university or any other	Yes	71	26.2
	No	200	73.8
	<b>Total</b>	<b>271</b>	<b>100</b>
have you ever been audited by KRA	Yes	58	21.4
	No	213	78.6
	<b>Total</b>	<b>271</b>	<b>100</b>
if yes how many times	0-1	40	69
	2-3	18	31
Have you ever been penalized by KRA as a result of the following			
Not filling a tax return	Yes	46	17
	No	225	83
	<b>Total</b>	<b>271</b>	<b>100</b>
Late filing of tax	Yes	38	14.1
	No	233	85.9
	<b>Total</b>	<b>271</b>	<b>100</b>
Have you ever engaged in the following:			
Under reporting income	Yes	52	19.2
	No	219	80.8
	<b>Total</b>	<b>271</b>	<b>100</b>
Over claiming deductions	Yes	24	8.9
	No	247	91.1
	<b>Total</b>	<b>271</b>	<b>100</b>

Table 3: Tax Compliance level

	Mean	Std. Deviation	Skewness	Kurtosis
The business files its tax returns on time	2.9	2.339	0.735	1.523
The business pays the right amount of taxes on time	2.71	0.263	-1.841	2.76

Table 4: Tax compliance Cost

	Mean	Std. Deviation	Skewness	Kurtosis
How do you rate the cost of filing a tax return	2.95	1.343	0.178	-1.401
How do you rate the cost of hiring a tax agent	2.87	1.414	0.343	-1.226
How do you find the cost of travelling in order to file a return	3.46	1.03	-0.344	-0.422

Table 5: Fines and Penalties

	Mean	Std. Deviation	Skewness	Kurtosis
The penalty rates are very low and I can afford to pay the penalty	3.21	1.185	0.016	-1.151
The enforcement is very weak	3.37	1.298	-0.323	-1.004
I believe that the penalty is lower than my tax saving due to not complying with tax laws	3.08	1.182	-0.077	-1.143
Serious enforcement and penalty by the KRA may result if I do not comply	3.06	1.389	-0.006	-1.219
Fines and Penalties	3.18	0.89536	0.59	-0.058

Table 6: Perceived opportunity for tax evasion

	Mean	Std. Deviation	Skewness	Kurtosis
Since the supporting documents do not need to be sent to the KRA, I can manipulate the figure in the tax return	4.27	0.788	-1.348	2.778
If detected not reporting my exact income, I believe that the tax authority is tolerant towards my offence and most probably it will escape without any punishment	2.78	1.417	0.037	-1.452
I believe the tax authority has limited capability to investigate all income reported to them so I have an opportunity not to report my exact income	2.4	1.362	0.473	-1.078
I believe that the probabilities of being detected by the tax authority for not declaring the exact income that I receive are low	2.74	1.317	0.121	-1.239
Tax evasion	3.126	0.93536	0.195	-1.242

Table 7: Tax knowledge and Education

	Mean	Std. Deviation	Skewness	Kurtosis
I know how to declare actual income received from all sources to the tax authority	2.77	1.137	0.132	-1.126
I know how to keep records/documents pertaining to income and expenditure for a period of seven years after submission of the tax return	2.62	1.229	0.368	-0.98
I understand that I should pay taxes due within the prescribed period from the date of issue of the Notice of Assessment or within the stipulated period	2.93	1.393	0.134	-1.321
I know I should obtain a tax payer identification pin number	2.83	1.384	0.149	-1.321
I know which income should be included or excluded in determining the taxable income	2.51	1.374	0.754	-0.723
Tax knowledge and Education	2.7336	1.03738	0.49	-0.809

Table 8: Correlations results

	Level of Tax compliance	Tax compliance cost	Tax Knowledge and education	Tax fines and penalties	Perceived opportunity for tax evasion
Level of Tax compliance	1				
	0				
Tax compliance cost	-.613**	1			
	0				
Tax Knowledge and education	.675**	.664**	1		
	0	0			
Tax fines and penalties	.710**	.488**	.513**	1	
	0	0	0		
Perceived opportunity for tax evasion	-.269**	.199**	.262**	.239**	1
	0	0.001	0	0	

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

Table 9: Model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
0.804	0.647	0.638	0.56069	1.929

Predictors: (Constant)Tax compliance cost, Tax knowledge and education, tax fines and penalties, perceived opportunity for tax evasion

Dependent Variable: Tax compliance level

Table 10: Anova Model

	Sum of Squares	df	Mean Square	F	Sig.
Regression	119.05	5	23.81	75.739	0.000
Residual	65.075	207	0.314		
Total	184.124	212			

Dependent Variable: Tax compliance

Predictors: (Constant), Tax compliance cost, tax knowledge and education, tax fines and penalties and perceived opportunity for tax evasion.

Table 11: Coefficients model

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	-0.391	0.274		-1.428	0.155		
Tax compliance cost	-0.302	0.046	-0.317	-6.531	0.000	0.725	1.379
Tax knowledge and education	0.386	0.059	0.331	6.557	0.000	0.669	1.495
Tax fines and penalties	0.169	0.072	0.111	2.334	0.021	0.759	1.317
Perceived opportunity for tax evasion	-0.208	0.057	-0.194	-3.646	0.000	0.600	1.666

Dependent Variable: Tax compliance

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