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# Perceived Online Tax Compliance Measures on Tax Compliance among Online Traders in Kenya

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#### **ABSTRACT**

In several developing countries, tax collection by government relied on manual taxation, but there is now more drive towards introduction of electronic online filling of taxes. In Kenya, online tax system relies on integrated tax system known as iTax system. This study determined the relationship between online tax system and tax compliance among online traders in Uasin Gishu in Kenya. The study is based on three theories as part of the theoretical framework, that is, the Technology Acceptance Model (TAM) Theory and Game Theory Model of Equilibrium in Tax Compliance. The research study adopted a positivist research paradigm and explanatory research design. Primary data were collected using online questionnaires from a sample of 160 online traders respondents in Uasin Gishu. The study found that during the response to five attributes of tax compliance, the there was low levels of tax compliance. The study also reported low levels of perceived iTax security concerns as well as perceived tax system stability. The multiple linear regression coefficient (R2 = 0.863, P < 0.001) was positive indicating a positive correlation between perceived iTax security and perceived tax system stability with tax compliance. We conclude that perceived security risks concerns and perceived tax system stability affected tax compliance among online traders in Uasin Gishu County. Based on the findings, it is suggested that policy makers should not just place emphasis on technology but pay more attention on the characteristics of potential iTax users, e.g. their perceived security and system stability while implementing iTax service.

#### INTRODUCTION

In the contemporary world, increasing number of business people relate with internet for economic purposes (Alzoubi et al., 2022; Beniiche et al., 2022). Indeed this interaction with the internet has created the basis for clients or consumers, product and market, access and distribution of information, and low-cost delivery of documents, business opportunities, consultancy services, online avenues for trading on various products, including engaging in online trades on various digital assets (Li and Zhang, 2022; Peters, 2023). Over the last 10 years, there has been more online users moving away from the 'brochure websites' into new generation websites which offer better platform for interaction between the users and a variety of online businesses platforms (Murray et al., 2023). Kenya is one of the countries that has made tremendous strides in the adoption internet being at 89.5% penetrability among the population as at January 2021 (Kapkai et al., 2021). This translated to internet coverage of approximately 17.86 million users at the start of 2021. This unprecedented growth of internet has enabled many Kenyans to view internet as a platform where they can earn their living though online trades (Ndung'u, 2018; Wilson and Makau, 2018; Nyaga, 2023). This enables business to be conducted without physical presence. While earning a living online used to be for some selected few in the past, the government of Kenyan has gradually recognized the importance of internet business and ecommerce as an economic activity

for which the citizens actively participate and contribute to the development of the country (David and Grobler, 2020; Myovella *et al.*, 2020).

Economic growth and development of a counties pivots on the revenues obtained by the government from the citizens and investments (Christensen and Hearson, 2019; Allayarov, 2020). The governments also need revenue to funds the growth of public expenditure, infrastructure, education, public healthcare services, public services, and pay debts among others (Kimaro et al., 2017; Bausch, 2019). The main instruments that a government may use to obtain funds for public expenditure is mainly through taxation (Ndajiwo, 2020; Olawole et al., 2022). The tax system is expected to mobilize revenues, reduce economic distortions, improve resource allocation, and improve productivity and growth prospects. In the past several years, there have been elaborate plans by governments to increase tax revenue generated (Habibov et al., 2018; Deojain and Lindequist, 2019) and this extend to tax from online business platforms.

Taxes collected by governments rely on voluntary compliance by taxpayers in fulfilling their tax obligation freely and completely without coercion (Slemrod, 2019; Okwara, 2020). Here, tax compliance will enable the citizens to pay taxes on time and timely reporting of the correct tax information (McGill, 2019; De Neve *et al.*, 2021). In this case, governments require all citizens in the respective jurisdiction to encompass voluntary obligation to pay taxes as set out in law (Hofmann *et al.*, 2017; Guerra

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and Harrington, 2018). However, countries in developing economies have difficulties of raising adequate tax revenue to finance the ever increasing public expenditures due to tax non-compliance (Rosid et al., 2019). An increase in tax compliance would reasonably enhance tax revenue level (Rosid et al., 2018; Tilahun, 2019). Subsequently, ways of improving tax compliance have been suggested in several countries. The rapidly increasing pace of technological change has significantly impacted tax compliance (Cotton and Dark, 2017; Gangodawilage et al., 2021). Through technological innovations, tax systems and databases may be integrated to facilitate tax compliance (Qadri and Darmawan, 2021; Qi and Azmi, 2021). There are a number of methods employed today by tax agencies to capture tax return and payment data electronically thus likely to affect tax compliance.

The electronic tax filing is a major form of electronic government services (Bassey et al., 2022). The Kenyan government introduced electronic tax filing in order to achieve greater tax administrative and compliance efficiency (Ng'ong'o, 2021). This system of taxation has an immense advantage including the convenience of taxpayers who can file tax returns at home or cybercafés, and minimization of errors associated with manual filing as the system automatically check the application (Bassongui and Houngbédji, 2021; Do et al., 2022). In Kenya, the earliest form of the online filing of tax returns was through the implementation of the Integrated Tax Management System (ITMS) in 2013. The Kenya Revenue Authority (KRA) later phased out the ITMS and replaced it with the integrated tax management (iTax) system. The iTax was more efficient to the taxpayer in filling their tax returns, undertake internet based registration, paying and status inquiries with real time monitoring of the accounts (Bett and Yudah, 2017; Opiyo, 2022). While there is an obvious advantage of iTax system, success of the system may rely on a number of factors including perception on the security of the system, and to some extent technical knowledge of system stability by the taxpayers (Migot and Paul, 2019). However, to the best of our knowledge, there is no study that has empirically tested these assertions. Therefore the aim of this study was to establish the impact of adoption of iTax on tax compliance among online traders in Uasin Gishu, Kenya.

#### LITERATURE REVIEW

#### Theoretical Review

The first theory that was used to explain the tax compliance behaviour in relation to technology is the technology acceptance model (TAM) developed by Davis and Venkatesh in 1989 (Tarhini et al., 2015; Lai, 2017). The authors argue that "when users are presented with a new technology; its perceived usefulness (PU) and Perceived ease-of-use (PEOU) will influence their decisions on how and when they will use it." The PU will allow the user to depict how using the technology will enhance their job performance while PEOU enable the user to perceive a particular system as free from effort. This implies that user acceptance of a technology will be pivotal in shaping the success or failure of adopting any system (Lippert and Davis, 2006; Hooks et al., 2022). The theory allows for the users to successful adopt the technology and have positive attitudes towards using the technology for their maximum benefits. The attitudes towards usage may be not be there but this attitude can increase if the user learn the basic of using the technology. There are however weaknesses of the theory one being that TAM has managed to divert the attention of the researchers from other significant research themes by creating an illusion of progress in knowledge accumulation. Secondly another weakness of the theory is that attempts at expanding TAM to enable it to adapt the dynamic IT environments have caused more theoretical chaos and confusion. The second theory that was used in this study is the Game Theory Model of Equilibrium in Tax Compliance (Geckil and Anderson, 2016). This group of model that try to explain compliance behaviour among taxpayers are generally based on the standard gametheory concept of equilibrium. Assuming linear tax rate and penalties, risk neutral taxpayer, no additional cost of an audit other than penalties levied on underreporting of income and that the objective of the tax authority is to maximize revenue. A tax authority will pursue the strategy that provides optimum audit revenue subject to a fixed audit budget by setting up a cut-off, whereby all declarations below the set level are audited with a probability p but leave out all declarations above the cut-off.

#### Conceptual Framework

This study conceptualizes that tax compliance could be

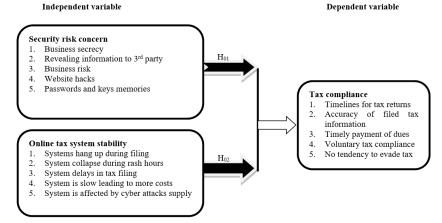


Figure 1: Conceptual framework linking the attributes of iTax management in tax



affected by online tax registration, tax liability verification, tax law enforcements. The purpose of this study will therefore be to test the nature and the strength of these relationships.

#### **METHODOLOGY**

#### Research paradigm and design

The underlying issue in research paradigm is to understand the ontology, epistemology and methodology of research (Rahi, 2017). This research study adopted a positivist research paradigm. The ontology of positivist paradigm judge that the world is independent, external and there exist a single objective reality to any situation regardless of the researcher's viewpoint (Rehman and Alharthi, 2016). The epistemology of positivism relies on observable and measurable facts with a presumption of causal explanation and prediction. The methodology of the said paradigm state that the best way to solve a problem involves quantification and statistical probability. Here, a hypothesis is put forward in propositional or question form about the causal relation between phenomena. Empirical evidence is gathered; the mass of empirical evidence is then analyzed and formulated in the form of a theory that explains the effect of the independent variable on the dependent variable.

This study adopted explanatory research design. The explanatory research design analyzes the cause-effect relationship between two or more variables (Casey et al., 2022). This design was adopted since the analysis investigated the cause-effect relationship between the

independent and the dependent variables. The cause was iTax measures whereas the effect was tax compliance.

#### Study Area, Population and Sampling

The study was carried out in Uasin Gishu County in Kenya. Uasin Gishu is one of the 47 counties in Kenya lying between longitudes 34°50' East to 35°37' East and latitudes 0°03' South to 0° 55' North. The County shares common borders with Trans Nzoia County to the North, Elgeyo Marakwet County to the East, Baringo County to the South East, Kericho County to the South, Nandi County to the South West and Kakamega County to the North West. It covers a total area of 3,345.2 km².

The population for this study were online traders. The online traders are registered at the Department of Trade in Uasin County offices. During the time of study, there were 459 individuals with registration status of business on online platform in any form. The sample size was derived from the population and the information used to generalize the findings within the limit of random error. The sample size of the study was calculated by using the Slovins formula (Tejada and Punzalan, 2012) with a 95% confidence level as:

$$n = \frac{N}{1 + Ne^2} = \frac{459}{1 + 459 * 0.05^2} = 213.736 \approx 214$$

Where: n = Sample size required

N = Number of people in the population

e = Allowable error (5%)

Thus the sample size was 214 online traders.

A total of 214 self-administered questionnaires were

**Table 1:** Socio-economic characteristics of the respondents (n = 160)

Socio-economic attributes (n = 160)	Variable attributes	Freq.	Percent
Gender	Male	100	62.5
Gender	Female	60	37.5
	18-25 years	48	30.0
Age	26–35 years	60	37.5
1180	36–55 years	44	27.5
	> 55 years	8	5.0
	Primary school	20	12.5
	Secondary school	68	42.5
Level of Education	College	42	26.3
	Bachelor degree	22	13.8
	Master degree	8	5.0
	<1 years	48	30.0
Business age	2-5 years	92	57.5
	5-10 years	16	10.0
	>10 years	4	2.5

Source: Data Analysis (2023)

distributed and a total of 160 were returned resulting in a response rate of 84.1%. The overall response rate was found to be suitable for analysis and making interpretations since response rate of 60-100% is considered adequate to validate any survey based studies (Meyer *et al.*, 2022).

The socio-economic background of the respondents is presented in Table 1.

#### Research Instruments and Data Collection

Data from the online traders were collected using



questionnaires. The questionnaire was divided into three parts; section A had the background information of the online traders, section B gathered information about the security and stability of itax while section C gathered information on tax compliance measurements. The questionnaires were self-administered by giving out in person to the respondents and could be completed at the informant's own time. The questionnaire was used to collect quantitative data determined by a Likert scale consisting of 5 items. All items were positively scored. A five-point Likert scale ranging from Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4) and Strongly Agree (5) was employed.

The researcher used expert judgement (Demirpence and Putnam, 2020) of subject matter specialists to evaluate validity of test items. Experts also made suggestions on the effectiveness of the questionnaire by checking whether it was related to the research questions or not and gave feedback. Their recommendations were incorporated in the final questionnaire.

For this analysis, reliability was evaluated using the Cronbach alpha test. For Cronbach's alpha the commonly agreed lower limit is=>0.70, however in explanatory research it may decrease to =>0.60 and increase up to  $\geq$ 0.80 in studies requiring more stringent reliability (Alkhadim, 2022). The alpha coefficient results of the reliability tests are provided in Table 2 The reliability of the perceived stability of iTax was the highest ( $\alpha$  = 0.8426), followed by perceived security of iTax ( $\alpha$  = 0.8222), and finally, tax compliance had a lower reliability score ( $\alpha$  = 0.7862). Reliability coefficient were above 0.7 which is acceptable (Amirrudin *et al.*, 2021).

Table 2: Reliability statistics of items in the questionnaire

Variables	No. of	Cronbach's	Remark
	items	alpha	
Perceived security of iTax	211	0.8222	Reliable
Perceived stability of iTax	208	0.8426	Reliable
Tax compliance	221	0.7862	Reliable

Source: Data Analysis (2023)

Before data collection, relevant documentation and permissions were sought and granted. First approval of the research was granted by Moi University School of Business. Then a research permit was obtained from the National Commission for Science, Technology and Innovation (NACOSTI). Data were collected at designated times in sampling units through the "drop-and-pick-later" method of questionnaire administration. In some instances the data collection were done at the convenience of the respondents. The respondents were assured that strict confidentiality would be maintained in dealing with the responses. Each of the respondents were given about 30 to 45 minutes to fill in the questionnaires after which the filled-in questionnaires were collected

upon expiration of the allocated duration and kept in safe custody awaiting analysis.

#### Model Development, Measures and Data Analysis

Data collected were checked for errors and cleaned before analysis using Statistical Package for Social Sciences (SPSS 23.0). The research instruments were further edited for completeness and consistency. Data were then coded before statistical analysis. Descriptive statistics was used to summarize the data and included percentages, frequencies, means and standard deviations. Quantitative data evaluating the relationship between the independent and dependent variable were analyzed using Multiple Linear regression model of the form:

 $\begin{array}{l} Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_n X_n + \epsilon_i \text{ for } i = 1,2,3,....n; \, n = 2 \\ \text{Where } Y_i = \text{Dependent variable,} \end{array}$ 

 $\beta_0$  = Y-intercept (constant term)

 $X_1$  = Perceived security concern and  $X_2$  = Perceived system stability

 $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  and  $\beta_5$  = Regression Coefficients

 $X_i$  = predictor variables for the independent variables and  $\epsilon$  = error

The assumptions of multiple regression analysis were strictly adhered to so as to control bias and they included:

#### Linearity

The linear regression needs the relationship between the independent and dependent variables to be linear. This was tested with the use of scatter plots.

#### Normality

The linear regression assumes that all variables have normal distributions. This assumption was checked with the use of goodness of fit test

## Multicollinearity in the Data

Multicollinearity occurs when the independent variables are highly correlated with each other. This was checked using Tolerance and Variance Inflation Factor (VIF). Tolerance measures the influence of one independent variable on all other independent variables. VIF values of less than 10 and tolerance value of more than 0.2 signifies absence of multicollinearity (Lavery *et al.*, 2019).

# Homoscedasticity (constant variance) of the Errors

This was checked by looking at a plot of residuals versus predicted values.

#### Autocorrelation

This study used Durbin-Watson test to check for autocorrelation. A value of between 1.5 and 2.5 is deemed appropriate to show lack of serial correlation among the errors (Ding, 2019).

#### RESULTS AND DISCUSSION

#### Tax Compliance Levels

The dependent variable for this study was tax compliance levels. The metric score for the tax compliance levels



is shown in Table 3 Based on five attributes of tax compliance, the overall mean of  $1.91 \pm 0.10/5.00$  indicated low levels of tax compliance. Tax compliance has remained a pervasive issue in developing countries (Okpeyo *et al.*, 2019; Musimenta, 2020). It is however very hard to prove tax noncompliance as taxpayers always acknowledge the fact that they are tax compliant. In this study we maintained strict anonymity and insisted on seeing any prove of tax compliance and surprisingly the result was that most online traders were actually non-compliant on payment of taxes. A previous study in Uganda established a significant difference between taxpayers and tax authorities in regards to tax compliance (Musimenta, 2020). The baseline is the tax compliance can only be proved through physical checks

of the taxpayers accounting records and tax authorities' records which enable us to get the actual tax compliance situation. There are a number of extant studies that have investigated various explanations for low tax compliance in developing counties with varied results such as high compliance costs (Musimenta, 2020), low level of tax fairness (Khamis and Mastor, 2021; Oladipo et al., 2022), isomorphic forces (Sadress et al., 2019; Nartey, 2023); tax morale (Hardika et al., 2021), complexity of the tax system (Musimenta, 2020), tax literacy (Nichita et al., 2019; Twum et al., 2020), fines and penalties (Mustapha et al., 2021) as well as poor taxpayers attitudes (Wijaya, 2019) among others. Our study did not get in details of what caused the low tax compliance and therefore we cannot pursue to answer such as question in the current study.

Table 3: Metrics and Score (means, Std. Dev. and distribution) for tax compliance among online traders

Tax compliance among	SD	D		NS		A		SA				
online traders	Freq.	0/0	Freq.	0/0	Freq.	0/0	Freq.	%	Freq.	0/0	Mean	SD
Timely filing of tax returns	45	28.1	53	33.1	50	31.3	12	7.5	0	0.0	2.18	0.12
Accurate filling of tax returns	25	15.6	56	35.0	34	21.3	13	8.1	32	20.0	1.82	0.11
Timeline payments of taxes	44	27.5	46	28.8	38	23.8	15	9.4	17	10.6	1.94	0.09
Voluntary tax compliance	39	24.4	53	33.1	38	23.8	13	8.1	17	10.6	1.94	0.10
No tendency to evade tax	36	22.5	31	19.4	40	25.0	12	7.5	41	25.6	1.66	0.08
Mean ± SD											1.91	0.10
Kurtosis											0.28	
Skewness											0.80	

N=160; 5-point Likert scale: 1= strongly disagree; 5=strongly agree; Freq. = Frequency Source: Data Analysis (2023)

Among the attributes of tax compliance that attracted moderate score was timely filing of tax returns only while other attributes such as tendency of the online traders to file of tax returns on time, accuracies in filling of tax returns, voluntary tax compliance and tendency to evade tax scored low.

#### **Tax Compliances Measures**

There are various measures on the iTax that was put in place to ensure compliance. In this study the focus was on perceived security aspect and perceived system stability of the iTax. The results are presented and discussed in subsequent sections.

#### Perceived iTax Security Concerns

The first independent variable for this study was perceived iTax security measures by the online traders. The metric score for the perceived tax security concerns is shown in Table 3. Based on five attributes of tax compliance, the overall mean of  $1.91 \pm 0.12/5.00$  indicated low levels of perceived iTax security concerns. The low perceived iTax security measures may have occurred due to occurrence of several cybersecurity threats and hacks into the computer system (Abed and Anupam, 2023; AL-Hawamleh, 2023). This has seen large number of people shying away from uploading large volumes of personal data, such as their personal details like security numbers in cyberspace. With

Table 4: Metrics and Score (means, Std. Dev. and distribution) for perceived online tax security to online traders

Perceived online tax	SD		D		NS		A		SA			
security to online traders	Freq.	%	Freq.	0/0	Freq.	0/0	Freq.	%	Freq.	%	Mean	SD
Enhanced business secrecy	44	27.5	67	41.9	38	23.8	9	5.6	2	1.3	2.11	0.15
That party has no access to business information	35	21.9	52	32.5	34	21.3	9	5.6	30	18.8	1.73	0.11
There is reduced business risk	61	38.1	46	28.8	38	23.8	11	6.9	4	2.5	1.94	0.13
There is reduced website hack	50	31.3	59	36.9	38	23.8	13	8.1	0	0.0	1.99	0.12
Passwords and keys are safe	31	19.4	36	22.5	40	25.0	12	7.5	41	25.6	1.69	0.08
Mean ± SD											1.91	0.12



Kurtosis						-0.20	
Skewness						-2.89	

N=160; 5-point Likert scale: 1= strongly disagree; 5=strongly agree; Freq. = Frequency Source: Data Analysis (2023)

exception of enhanced business secrecy, all the attributes of perceived tax security concerns attracted low score meaning they were not highly rated by the online traders.

#### Perceived Online Tax Returns System Stability

The second independent variable for this study was perceived online tax returns system stability among the online traders. The metric score for the perceived online tax returns system stability is shown in Table 5. Based on five attributes of was perceived online tax returns system stability, the overall mean of  $2.01 \pm 0.08/5.00$ 

indicated low to moderate level of perceived online tax returns system stability. The current result imply that the online traders did not have confidence about the online tax returns system stability due to frequent hang ups, collapse, delays and slow at execution of the tasks as well as several cyber security attacks. These problems reported here are common in many online setting where internet is used in performing some tax (Arora *et al.*, 2022; Liu *et al.*, 2022; Renaud and Coles-Kemp, 2022). We observed that during the last 3 days towards the deadline of filing the returns, the system hanged or was too slow to execute any function.

Table 5: Metrics and Score (means, Std. Dev. and distribution) for perceived tax system stability

Perceived tax system	SD		D		NS		A		SA			
stability	Freq.	%	Mean	SD								
System rarely hang up during filing	42	26.3	56	35.0	23	14.4	23	14.4	16	10.0	2.47	0.10
System rarely collapse during peak hours	30	18.8	43	26.9	21	13.1	21	13.1	45	28.1	1.64	0.07
System has no delays during tax filing	39	24.4	54	33.8	20	12.5	22	13.8	25	15.6	1.84	0.10
System is fast leading during tax filing	31	19.4	52	32.5	32	20.0	26	16.3	19	11.9	2.09	0.07
System is rarely affected by cyber attacks	23	14.4	45	28.1	27	16.9	31	19.4	34	21.3	1.99	0.06
Mean ± SD											2.01	0.08
Kurtosis											0.66	
Skewness											0.81	

N=160; 5-point Likert scale: 1= Strongly Disagree; 5=Strongly Agree; Freq. = Frequency Source: Data Analysis (2023)

# Test for Relationships between Electronic Tax Measures on Tax Compliance

The multiple linear regressions was used to examine the cumulative effect of electronic tax measures on tax compliance. The multiple correlation coefficient (R) was positive and of a value of 0.663 indicating that there was a strong and positive correlation between the two independent variable cumulatively and the dependent variable. On the other hand, the coefficient of determination (R Square) indicates the variance on tax compliance attributed to the two independent variables is 44.2%. The one way ANOVA was used to give an indication on whether the linear regression model was a good fit for the data or two independent variables were good predictor of the independent variable. In this context, P < 0.05 indicates that the model was considered a good fit for the data.

The unstandardized coefficients of the model were examined with a view of giving security perceptions,

and online returns system stability on the tax compliance levels at an independent level. The two independent variables had positive effect on the dependent variable as indicated by their coefficients in the below linear regression equation; Tax Compliance Levels = -0.377 + 0.422 ( $\rm X_1$ ) + 0.417 ( $\rm X_2$ ) where  $\rm X_1$  is security concerns and  $\rm X_2$  = online tax returns system stability.

The coefficient of intercept 0.377 indicates that any increase in the perceived online tax security and perceived tax system stability would increase the tax compliance by 37.7%. Individually, perceived online tax security increase the compliance by 36.6% and perceived tax system stability increases it by 34.8%. It was also determined that the correlations between perceived online tax security and perceived tax system stability with tax compliance were found to be positive and significant. These results suggest that perceived online tax security and perceived tax system stability resulted in increased tax compliance among online traders.





**Table 6:** Multiple regression analysis showing the relationship between tax compliance and perceived attributes of the iTax

Regression Statistics					
Multiple R	0.6632				
R Square	0.4424				
Adjusted R Square	0.4332				
Standard Error of Estimate	0.6857				
Durbin-Watson	1.6943				
Dependent Variable	Tax complian	ice			
Predictors: (Constant), Per			e business, pe	rceived system stability	
ANOVA	TSS	df	MSS	F	P-value
Regression	57.937	2	28.969	61.596	< 0.0001
Residual	73.838	157	0.470		
Total	131.775	159			
	Unstandardiz	ed Coefficients	Standardized	Coefficients	
	В	Std. Error	Beta	t Stat	P value
(Constant)	0.377	0.161		2.343	0.020
Perceived online tax security	0.422	0.100	0.366	4.230	0.000
Perceived tax system stability	0.417	0.103	0.348	4.029	0.000
Correlations	Zero-order	Partial	Part	Collinearity Statistics	
(Constant)				Tolerance	VIF
Perceived online tax security	0.618	0.320	0.253	0.467	2.196
Perceived tax system stability	0.613	0.306	0.241	0.477	2.096

The research hypothesis was tested using multiple linear regression analysis. In the context of where the p value is less than 0.05 significance level then the null hypothesis was rejected. The following hypotheses were tested; H01: There is no significant relationship between perceived security risks concerns and perceived tax system stability on tax compliance among online traders in Uasin Gishu County. The P value of perceived security risks was <0.001 leading to the rejection of null hypothesis (H01).

#### **CONCLUSIONS**

The iTax system has been in operation in Kenya for few years since 2018, with an aim to drive up tax compliance including the online traders who were not in the tax brackets previously. In the current study, there was a low level of tax compliance among the online trader and the same group of people indicated that they have low levels of perceived system security and system stability. Moreover, the perceived system security and stability affected tax compliance. The findings of the current study lend credence to the fact that policy makers should not just place emphasis on technology but pay more attention on the characteristics of potential iTax users, e.g. their perceived security and system stability while implementing iTax service.

Based on the foregoing discussion, the government is challenged to develop e-filing systems that satisfy the curiosity, desires, and perceptions of taxpayers. There is also need for further research on more factors affecting compliance in the realm of acceptance models to determine how adoption factors interact, how antecedents of salient predictors impact intentions, and how additional personal perceptions and abilities impact taxpayer intentions.

### REFERENCES

Abed, A. K. and Anupam, A. (2023). Review of security issues in Internet of Things and artificial intelligence-driven solutions. *Security and Privacy*, 6(3), e285.

AL-Hawamleh, A. M. (2023). Predictions of cybersecurity experts on future cyber-attacks and related cybersecurity measures. *International Journal of Advanced Computer Science and Applications*, 14(2).

Alkhadim, G. S. (2022). Cronbach's alpha and semantic overlap between items: A proposed correction and tests of significance. *Frontiers in psychology*, 13(171).

Allayarov, S. A. (2020). Combination of fiscal and stimulating functions of the tax system to ensure financial and economic security. *American journal of economics and business management*, 3(1), 64-69.

Alzoubi, H., Alshurideh, M., Kurdi, B. A., Alhyasat, K. and Ghazal, T. (2022). The effect of e-payment and online shopping on sales growth: Evidence from banking industry. *International Journal of Data and Network Science, 6*(4), 1369-1380.

Amirrudin, M., Nasution, K. and Supahar, S. (2021). Effect of variability on Cronbach alpha reliability in research practice. *Jurnal Matematika, Statistika dan Komputasi, 17*(2), 223-230.

Arora, H., Manglani, T., Bakshi, G. and Choudhary,



- S. (2022). Cyber security challenges and trends on recent technologies: 2022 6th International Conference on Computing Methodologies and Communication (ICCMC). IEEE, pp. 115-118.
- Bassey, E., Mulligan, E. and Ojo, A. (2022). A conceptual framework for digital tax administration-A systematic review. *Government Information Quarterly*, 39(4), 101754.
- Bassongui, N. and Houngbédji, H. S. (2021). Does tax digitalisation improve tax revenues collection in sub-Saharan Africa. Conference Economique Africaine. Available from: https://aec. afdb. org/fr ....
- Bausch, R. D. (2019). Social capital and the cyclicality of government expenditure. *International Journal of Trade and Global Markets*, 12(3-4), 250-259.
- Beniiche, A., Rostami, S. and Maier, M. (2022). Society 5.0: internet as if people mattered. *IEEE Wireless Communications*, 29(6), 160-168.
- Bett, B. K. and Yudah, O. A. (2017). Contribution of i-tax System as a strategy for revenue collection at Kenya revenue authority, rift valley region, Kenya. *International Journal of Scientific and Research Publications*, 7(9), 389-396.
- Casey, J. D., Beskow, L. M., Brown, J., Brown, S. M., Gayat, É., Gong, M. N., Harhay, M. O., Jaber, S., Jentzer, J. C. and Laterre, P. F. (2022). Use of pragmatic and explanatory trial designs in acute care research: lessons from COVID-19. The Lancet Respiratory Medicine, 10(7), 700-714.
- Christensen, R. C. and Hearson, M. (2019). The new politics of global tax governance: Taking stock a decade after the financial crisis. *Review of International Political Economy*, 26(5), 1068-1088.
- Cotton, M. M. and Dark, G. (2017). Use of technology in tax administrations 1: developing an information technology strategic plan (ITSP). International Monetary Fund.
- David, O. O. and Grobler, W. (2020). Information and communication technology penetration level as an impetus for economic growth and development in Africa. *Economic research-Ekonomska istraživanja*, 33(1), 1394-1418.
- De Neve, J. E., Imbert, C., Spinnewijn, J., Tsankova, T. and Luts, M. (2021). How to improve tax compliance? Evidence from population-wide experiments in Belgium. *Journal of Political Economy*, 129(5), 1425-1463.
- Demirpence, D. and Putnam, S. (2020). Reliability and validity of the self-report version of the Early Adolescent Temperament Questionnaire—Revised (EATQ-R) Short Form in a Turkish sample. *PsyCh Journal*, *9*(1), 67-76.
- Deojain, S. and Lindequist, D. (2019). Diversity Taxes. Available at SSRN 3401377.
- Ding, P. (2019). Two paradoxical results in linear models: the variance inflation factor and the analysis of covariance. arXiv preprint arXiv:1903.03883.
- Do, H. T. H., Mac, Y. T. H., Van Tran, H. T. and Nguyen, T. T. L. (2022). The impact of attitude towards an e-tax system on tax compliance of Vietnamese enterprises: Adoption of an e-tax system as a mediator.

- Gangodawilage, D., Madurapperuma, W. and Aluthge, C. (2021). Use of Technology to Manage Tax Compliance Behavior of Entrepreneurs in the Digital Economy. *International Journal of Scientific and Research Publications*, 11(3), 366-370.
- Geckil, I. K. and Anderson, P. L. (2016). Applied game theory and strategic behavior. CRC Press.
- Guerra, A. and Harrington, B. (2018). Attitude—behavior consistency in tax compliance: A crossnational comparison. *Journal of Economic Behavior & Organization*, 156(184-205).
- Habibov, N., Auchynnikava, A., Luo, R. and Fan, L. (2018). Who wants to pay more taxes to improve public health care? *The International journal of health planning and management, 33*(4), e944-e959.
- Hardika, N. S., Wicaksana, K. A. B. and Subratha, I. N. (2021). The Impact of Tax Knowledge, Tax Morale, Tax Volunteer on Tax Compliance: International Conference on Applied Science and Technology on Social Science (ICAST-SS 2020). Atlantis Press, pp. 98-103.
- Hofmann, E., Voracek, M., Bock, C. and Kirchler, E. (2017). Tax compliance across sociodemographic categories: Meta-analyses of survey studies in 111 countries. *Journal of Economic Psychology*, 62(63-71).
- Hooks, D., Davis, Z., Agrawal, V. and Li, Z. (2022). Exploring factors influencing technology adoption rate at the macro level: A predictive model. *Technology* in Society, 68(101826).
- Kapkai, P., Muthee, I., Ngala, B., Musa, N., Wanyeri, A. and Gathoni, E. (2021). Enforcement of the Digital Economy Taxation. *African Tax and Customs Review,* 4(1-23).
- Khamis, I. H. and Mastor, N. H. (2021). Service Quality, Tax Awareness and Tax Fairness as Determinants of Tax Compliance among E-Commerce Enterprises in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 11(2), 938-951.
- Kimaro, E.L., Keong, C.C. and Sea, L.L. (2017). Government expenditure, efficiency and economic growth: a panel analysis of Sub Saharan African low income countries. *African Journal of Economic Review*, 5(2), 34-54.
- Lai, P.C. (2017). The literature review of technology adoption models and theories for the novelty technology. *JISTEM-Journal of Information Systems and Technology Management*, 14(21-38).
- Li, B. and Zhang, S. (2022). Research on the development path of China's digital trade under the background of the digital economy. *Journal of Internet and Digital Economics*, 2(1), 1-14.
- Lippert, S.K. and Davis, M. (2006). A conceptual model integrating trust into planned change activities to enhance technology adoption behavior. *Journal of* information science, 32(5), 434-448.
- Liu, X., Ahmad, S.F., Anser, M.K., Ke, J., Irshad, M., Ul-Haq, J. and Abbas, S. (2022). Cyber security threats: A never-ending challenge for e-commerce. *Frontiers in psychology*, 13(927398).
- McGill, R. (2019). Information Reporting and Tax



- Returns, US Withholding Tax. Springer. pp. 79-99.
- Meyer, V. M., Benjamens, S., El Moumni, M., Lange, J. F. and Pol, R. A. (2022). Global overview of response rates in patient and health care professional surveys in surgery: a systematic review. *Annals of surgery.* 275(1), e75
- Migot, L.O. and Paul, S.N.u. (2019). Determinants of successful implementation of integrated tax projects of Kenya Revenue Authority, Kenya. *Journal of Entrepreneurship and Project Management*, 4(1), 26-51.
- Murray, A., Kim, D. and Combs, J. (2023). The promise of a decentralized internet: What is Web3 and how can firms prepare? *Business Horizons*, 66(2), 191-202.
- Musimenta, D. (2020). Knowledge requirements, tax complexity, compliance costs and tax compliance in Uganda. *Cogent Business & Management*. 7(1): 1812220.
- Mustapha, B., Rildwan, O. B., Sadiq, R., Moronke, L. A., Ahmad, H. and Rahmon, T. A. (2021). Integrated e-tax filing management system on tax compliance behaviour in Nigeria. *Academy of Accounting and Financial Studies Journal*, 25(1-15).
- Myovella, G., Karacuka, M. and Haucap, J. (2020). Digitalization and economic growth: A comparative analysis of Sub-Saharan Africa and OECD economies. *Telecommunications Policy*, 44(2), 101856.
- Nartey, E. (2023). Tax compliance of small and medium sized enterprises in Ghana. *International Journal of Sociology and Social Policy*.
- Ndajiwo, M. (2020). The taxation of the digitalised economy: An African study.
- Ndung'u, N. S. (2018). Next steps for the digital revolution in Africa: Inclusive growth and job creation lessons from Kenya.
- Ng'ong'o, W. J. (2021). The Effect of Tax Reforms on Performance of Kenya Revenue Authority, University of Nairobi.
- Nichita, A., Batrancea, L., Marcel Pop, C., Batrancea, I., Morar, I.D., Masca, E., Roux-Cesar, A.M., Forte, D., Formigoni, H. and da Silva, A.A. (2019). We learn not for school but for life: Empirical evidence of the impact of tax literacy on tax compliance. *Eastern European Economics*, 57(5), 397-429.
- Nyaga, B. M. (2023). Online Dispute Resolution: The Future of E-Commerce in Kenya. Journal of Conflict Management and Sustainable Development, 8(3).
- Okpeyo, E. T., Musah, A. and Gakpetor, E. D. (2019). Determinants of tax compliance in Ghana. *Journal of Applied Accounting and Taxation*, 4(1), 1-14.
- Okwara, C. (2020). The Relationship between Tax Transparency, Trust, and Taxpayers' Voluntary Tax Compliance in Northeast Region. Wilmington University (Delaware).
- Oladipo, O., Nwanji, T., Eluyela, F., Godo, B. and 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.
- Olawole, I., Abounabhan, M. and Niesten, H. (2022). Digital Payments Taxation Factsheet: Kenya.

- Opiyo, E. (2022). *Evolution of kenyan taxation system.* in: Revenue, K.S.o. (Ed.). Nairobi, Kenya.
- Peters, M. A. (2023). Digital trade, digital economy and the digital economy partnership agreement (DEPA). Taylor & Francis, pp. 747-755.
- Qadri, R.A. and Darmawan, E.E. (2021). E-Filing Implementation, Tax Compliance, and Technology Authority. *Journal of Applied Accounting and Taxation*, 6(1), 23-36.
- Qi, Y. and Azmi, A.C. (2021). Factors affecting electronic invoice adoption and tax compliance process efficiency. Transforming Government: People, Process and Policy.
- Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5.
- Rehman, A.A. and Alharthi, K. (2016). An introduction to research paradigms. *International Journal of Educational Investigations*, 3(8), 51-59.
- Renaud, K. and Coles-Kemp, L. (2022). Accessible and inclusive cyber security: a nuanced and complex challenge. *SN Computer Science*, *3*(5), 346.
- Rosid, A., Evans, C. and Tran-Nam, B. (2018). Tax noncompliance and perceptions of corruption: Policy implications for developing countries. *Bulletin of Indonesian Economic Studies*, 54(1), 25-60.
- Rosid, A., Evans, C. and Tran-Nam, B. (2019). Perceptions of corruption and tax non-compliance behaviour: Policy implications for developing countries. Available at SSRN 3317994.
- Sadress, N., Bananuka, J., Orobia, L. and Opiso, J. (2019).

  Antecedents of tax compliance of small business enterprises: a developing country perspective.

  International Journal of Law and Management, 61(1), 24-44.
- Slemrod, J. (2019). Tax compliance and enforcement. *Journal of Economic Literature*, *57*(4), 904-54.
- Tarhini, A., Arachchilage, N.A.G. and Abbasi, M.S. (2015). A critical review of theories and models of technology adoption and acceptance in information system research. *International Journal of Technology Diffusion (IJTD)*, 6(4), 58-77.
- Tejada, J. J. and Punzalan, J. R. B. (2012). On the misuse of Slovin's formula. *The philippine statistician, 61*(1), 129-136.
- Tilahun, M. (2019). Determinants of tax compliance: a systematic review. *Economics*, 8(1), 1-7.
- Twum, K. K., Amaniampong, M.K., Assabil, E.N., Adombire, M.A., Edisi, D. and Akuetteh, C. (2020). Tax knowledge and tax compliance of small and medium enterprises in Ghana. South East Asia Journal of Contemporary Business, Economics and Law, 21(5), 222-231.
- Wijaya, S. (2019). Taxpayer attitude on the elimination of tax sanction and taxation awareness toward taxpayer compliance in Yogyakarta. *Jurnal Manajemen Indonesia*, 19(1), 71.
- Wilson, V. and Makau, C. (2018). Online marketing use: small and medium enterprises (SMEs) experience from Kenya. Orsea Journal, 7(2).