# Effect of Technology Usage and Capital Gains Tax Performance Among Landlords in West of Nairobi Kenya Emmah Omwenga<sup>1</sup> Bruce Ogaga<sup>1</sup>

<sup>1</sup> Kenya Revenue Authority

Received 18 March 2022 Accepted for publication 05 April 2022 Published 19 April 2022

### Abstract

Capital Gains Tax is charged on the appreciation of capital assets and is commonly imposed only when the increase in value is realized through sale or exchange. The study aimed to determine how technology utilization affects the performance of Capital Gains Tax (CGT) in Kenya with specific focus in the West of Nairobi. The key source of CGT is mainly sale of movable and immovable properties; stocks, land and buildings respectively. Transfer of shares in the stock exchange is another source but not stocks and as ubiquitous in Africa as the later. The study was anchored on the theory of Technology Determinism. Descriptive research design was adopted in the study. The Target population was 8,800 land lords located in West of Nairobi. A simple random sampling method was adopted to arrive at a sample size 64 respondents. The study used primary data collected from the respondents, while secondary data was collected from existing literature on revenue reports and journals. Inferential statistics was analyzed through correlation analysis and regression analysis. The findings reveal that automation has significant positive correlation with CGT performance. The regression model further predicts that holding other factors constant, adequate use of technology increases the performance by 31.5%. The study thus recommends full adoption of systems automation, culminating in block chain management in order to optimize CGT and other property tax performance.

Keywords: Capital Gains Tax, Property & Technology

### 1. Background

Property tax is a tax levied against the deemed value or against the income arising from property, as opposed to an individual or a legal entity (Abbott, 2008). Capital gains in developing countries differ from those in developed countries. In the former, capital gains are mainly from the sale or exchange of real estate, and in the latter, chiefly from the sale of securities. Three reasons account for the ;preponderance of capital gains from real estate in developing countries: ,the concentration of wealth held in real estate;, the dominance in the corporate sector of foreign corporations whose shares are owned by nonresidents who are taxed abroad; and the widespread use of bearer shares, which limits the effectiveness of taxation of capital gains from shares. It is viewed as the ad valorem tax on the value of the property.

Capital gains tax (CGT) is levied by a governing authority where the property is situated. It is an annual charge on ownership or occupation of property the proceeds of which is traditionally used to offset the costs of providing municipal services such as refuse disposal, provision and running of markets, maternity homes, and parks. The tax is, therefore, traditionally associated with local governments. Property taxation is ubiquitous as virtually all local governments the world over rely to some extent on property taxation, while in countries such as Australia, Canada, the USA, local governments depend almost exclusively on the property tax (Pilmmer and McCluskey, 2007; Bird and Slack, 1991), Musunu (2000) affirmed that international trend is towards improvement of local governments. Babawale (2013) pointed out that property taxation remains one of the most lucrative tax revenue source yet least tapped to support urban government in Africa.

The second is the strong and persuasive argument that without local tax or own local revenue, local democracy would disappear (Dillinger 1991). Property taxes take various forms; these include rental income, Capital Gains Tax(CGT), Stamp duty, land, shares etc. regarding Capital Gains Tax, Sikes and Veracchia (2012) add that is tax that accrues from sale of a property and is a final tax.. This is one of the core focus tax areas in Kenya with recent reintroduction in 2015 with the aim of plugging the revenue gaps and broadening the tax base. According to Minas and Maples (2020) in addition to boosting revenue collection, CGT promotes vertical and horizontal equity in taxation system. It is applied to the profit of a sale of a property. Because capital gains in developing countries result largely from investments in land, the taxation of these gains is justifiable in that such investments are not socially productive and are highly speculative. Therefore, a capital gains tax discourages investments that are not in line with the social and economic objectives of developing economies. A capital gains tax is on an increment which generally accrues to the high-income group and thus provides an element of progressivity in the tax system. CGT was first incorporated within the Kenyan income tax legislation in 1975, as entrenched in the Eighth Schedule to the ITA. In 1985, the tax was suspended so as to encourage growth in the real estate sector.

This function is particularly important in developing countries with a high concentration of wealth and/or with an otherwise regressive tax system. A capital gains tax combined with a well-structured progressive income tax and levies on capital would be useful in promoting tax equity. The lock-in effect of a capital gains tax in developing countries may have important repercussions on the mobility and composition of investments; on the other hand, the adverse effect on investments is less serious than claimed, judging from the general low rate structure and the restricted nature of the capital gains tax in many developing countries (Amatong, 2018). The composition of capital gains in developing countries is different from that in advanced countries. According to IMF report (2018) in advanced countries such as the United States of America, a considerable proportion of capital gains come from the sale of securities. It is also approximated that a fair share of the securities in the United Kingdom would equal that of the USA. This appears to be replicated across majority of the developed countries. The finance Act (2020) states that Property tax is charged at a flat rate of 5% of the gain regardless of the category or value of the property (land, building and shares).

### 2.Problem statement

The growth of governments and the extent to which they can collect revenues from their citizens, is a striking economic feature of the last two centuries. The available long data shows that in the process of development, states have increased the levels of taxation, while at the same time changing the patters of taxation, mainly by providing an increasing emphasis on broader tax bases (ICTD GRD, 2020). Most countries have moved to expand their base not only to increase revenue collection but to standardize their bases in comparison to other states in the world. This has been facilitated by global treaties on trade and taxation (OECD, 2021).

This necessitates considering of usage of technology to enhance performance of CGT (DTD Report, 2021). A study carried out by Babawale (2011) shows that property transactions have been on the rise in the recent years due to the lucrative business in this area. However, CGT performance has been dwindling as evidence from the data at the KRA. Further, there is paucity of information with regards to performance of CGT attributed to property transactions (IMF report, 2019). David (2018) characterized a preferential treatment of capital gains as an encouragement for taxpayers to buy opportunities for earning income that yield capital gains. It is noteworthy that technology usage has been limited in endeavor to collect CGT. Gefald (2012) also identified two notable adverse efficiency effects of non-utilization technology to enhance the performance of CGT. The lock-in effect of a capital gains tax in the continent may have long lasting repercussions on the mobility and general performance of CGT. Administration and the revenue potential of the tax are to be considered in the introduction of a capital gains tax. Such a tax is complex and necessitates high administrative cost including technology utilization to make it effective. In the last three years CGT performance was; in 2019/18 ksh 348 monthly ksh 200M monthly in 2019/2020 and 2020/21 ksh 200M average on a monthly basis, this trend manifests (under performance of CGT in Kenya (KRA 2021).

This is despite the numerous efforts the government continuous to put in place to enhance collection. Past studies conducted did not include the technology usage to enhance revenue performance and this is what this study seeks to address. A study by Gathuri (2019) adopted compliance cost as one of the predictors of CGT performance in Kenya. Due to the major boom for commercial and residential development, facilitated by the infrastructural development as well the West of Nairobi district being the custodian of the largest number of taxpayers in Nairobi city, this study therefore sought to establish the effect of Technology usage and Capital Gains Tax Performance among Landlords in West of Nairobi

### 3. Literature Review

Technology determinism theory

The study was underpinned by the theory of the determinism (TD) which is a reductionist theory and states that technology is a social structure or a force which drives change. Jullie, (2017) argues that technology change is perceived as most important driving force of change in any system. That belief that the technical base of a society is the fundamental condition affecting all patterns of social existence, if one believes in using technology it thus affects the way they performance certain roles. TD changes the organizational culture, structure, reporting line, norm and many other aspects including the modes of operations.

Critics like (Chandler, 2000) states that other than technological issue other factors have driving forces and some of them include political issues, class interests, economic pressures, educational background, general attitudes and others.

Critics of TD argue variously that technology itself is socially determined, that technology and social structures coevolve in a nondeterministic, emergent process, or that the impact of any given technology depend mainly on how it is implemented which is in turn socially determined. Given the proliferation of new technologies in modern capitalism, the TD debate is continually renewed.

### **Empirical Review**

The literature review reflects a reasonable spectrum of tax related empirical studies conducted in various tax jurisdictions across the globe.

#### Technology Usage and Capital Gains Performance

According to a study conducted by Pattiasina et al. (2020), on determinants of taxpayer compliance level in East Indonesia. The findings of the study reveal that tax knowledge and tax sanctions have a significant positive effect on taxpayers' awareness on technology effect on revenue performance. The study also reveals that taxpayers' awareness has a positive effect on taxpayer compliance.

In addition, Rayahu, Setiawan, and Troena (2017), examines the roles of taxpayers' awareness, tax regulation and understanding and influence on taxpayers' compliance. The findings from the study showed that knowledge and understanding of tax regulations and tax awareness of the tax laws by taxpayers made a significant contribution to taxpayers' compliance. It however lacked explicit information on technology usage with regards to CGT performance. However, the high cost of administering a Capital Gains Tax and the low potential yield may be partly compensated for by the fact that tax administrators may gain access to records that aid in the administration of the income tax and other taxes.

In developing countries considering the adoption of a capital gains tax should weigh carefully its economic, social, administrative, and revenue consequences. Administration and the revenue potential of the tax are to be considered in the introduction of a capital gains tax. Such a tax is complex and necessitates high administrative cost to make it effective in many countries shows that the revenue yield from the tax is low. However, the high cost of administering a capital gains tax and the low potential yield may be partly compensated for by the fact that tax administrators may gain access to records that aid in the administration of the income tax and other taxes. Aondo (2019), conducted a study on the effectiveness of taxpayers' education on compliance for SMEs in Kenya. The study adopted descriptive research and statistical analysis models. Pearson correlation was used to predict and describe the relationship between the variables. The study findings found that taxpayer education has effect on compliance across all taxes including, PAYE, consumption and individual taxes among others.

It can be considered from the reviewed literature that taxpayers' engagement has benefits for compliance which ultimately leads to better revenue performance. It has been noted that some of the knowledgeable taxpayers would use the knowledge they have of the tax system loopholes to their advantage. This would however have a negative impact on revenue performance. Some scholars also argue that to measure compliance is complicated. It is therefore important further to find out the effect of capital gains tax on revenue performance in the case of real estate developers who may or may not be knowledgeable about the CGT.

#### Capital Gains Tax Performance

Property tax is charged at a flat rate of 5% of the gain regardless of the category or value of the property (land, building and shares) (KRA, 2021). CGT is mainly a state government affair while the local governments remain the collection authorities. In the Kenyan case, collection of this tax is bestowed on the Kenya Revenue Authority, due to the nature of the Taxes head the County Government plays a critical role. The reasons are not farfetched. On the one hand, most local authorities and county governments in Kenya and African continent at large are incapable of implementing the whole process of property tax, on the other hand, it is generally recognized that day-to-day functions are best undertaken at the local level, so that the benefit of local knowledge can improve the administration and services offered to the taxpayers.

However, Stuart (2008) argues that higher CGT rates might discourage saving, investment and entrepreneurship, but these could be encouraged in better-targeted ways. On the other hand, low rates of capital gains tax are essential to reward difficult and risky entrepreneurial activity. Hungerford (2010) posits that capital gains tax reductions are often proposed as a policy that will increase saving and investment, provide a short-term economic stimulus, and boost long-term economic growth. Since CGT is charged only when an asset is sold, a straightforward way to avoid it is to not sell assets.

4. Methodology Conceptual Framework The conceptual model in Figure 1 represents conceptualization of the causal relationship between technology as a predictor and CGT performance as the outcome. Technology usage was measured in terms of online registration, online filing and online payment, while the metrics for CGT performance were registered tax payers, tax paid and returns filed.

### **Research Methodology**

Target population refers to the aggregate number of subjects or whole environment of concentration of the research as described by Oson & Onen (2011), and Mugenda & Mugenda (2013). The target population in this study comprises registered individuals and entities that carry the business of buying, improving the value and selling thereafter the property which is either land or buildings operating their businesses in West of Nairobi.

The target population comprises of 880 taxpayers who paid transacted in property in the last three years and are registered by the Kenya Revenue Authority. Primary data was collected by use of a questionnaire which was utilized in likert scale. This enabled the respondent's feely express their views Questions were dropped and picked for analysis once they were completed. The instrument was tested to reliability to ensure internal consistency a consistency of 0.7 was accepted.

### See annex table 1.1 Test of Reliability

According to Schwartz-Shea and Yanow, (2013) validity is the degree to which a test measures what is intended to measure. In this study, validity was also examined through the ability of the test instruments to measure what they are supposed to measure. As such, pre-test was conducted through pilot study in which there was checking of any deficiencies in terms of unclear instructions, insufficient spaces to write responses and wrong phrasing of questions. Thus, this ensured research content validity

Prior to data analysis, assumptions for normality and multicollinearity were checked. The normality test which used Shapiro-Wilk tests to check for normality and Multicollinearity test for variance inflation factor (VIF). The collected data was edited for accuracy, uniformity, consistency and completeness, organized, summarized, coded and tabulated before final analysis.

Regression analysis was used to establish the interaction and link between the study variables. Correlation analysis was also used an inferential statistic of the study

The study model is depicted as follows:

 $Y = \beta 0 + \beta 1X1 + \varepsilon$ Where; Y= Capital gain tax performance (Dependent variable); X1=Technology usegoi

X1=Technology usage;

 $\beta 1 = beta coefficient;$ 

 $\epsilon = Error term$ 

#### 5. Data analysis and presentation

The researcher distributed 88 questionnaires out of which 70 were received, 6 questionnaires were rejected due to improper incompletion. Thus 64 questionnaires were accepted as correctly filled which represent a response rate of 72 %. As indicated by Mugenda and Mugenda (2003) in his studies 50 per cent of reaction rate of above 70% rated is very good. This means that a response of 75% was very good for data analysis. Based on these assertions, this implies that the response rate for this study was adequate

#### **Ownership**

The study sought to establish the ownership of the business. Results revealed that 75% of respondents were the owners while 25% were employee. The results demonstrate that the most business was operated by the owners

### See Annex Table 1.1 Respondents Gender Business Existence of the Respondents

Asked about the period their businesses had existed, majority of the respondents indicated that they had been in their respective trades for 1-3 years. These were followed by those who said that they had traded for 4-6 years, while the minority said that they had been small and medium business traders for 7-9 years. None of them said that their businesses had existed for more than 10 years. A summary of these findings is given in table below.

#### See Annex Table 1.2 Business Existence Capital Gains Tax Familiarity

The research also sought to gauge the familiarity and exposure of the respondents with regards to their knowledge on Capital Gains Tax. Findings showed that 100% of the respondents are aware of the CGT concept which supports the researcher's choice on the target population. The research findings also sought to shed light with regards to what experience the respondents have had as well as the impact they have noted or witnessed through the reintroduction of CGT. Table 4.1 shows a collection of the views from the respondents that shall expound the questions raised.

# See Annex Table 1.3 Experience of Respondents with capital gains tax

### Descriptive statistics

See annex table 1.4 Technology usage

From Table 4.7, respondents agreed that I have adopted online filing since it is a legal requirement (M=4.64). Respondents agreed that I use online platform to file my tax returns in time (M=4.82). I-Tax enables me to file my returns regularly (M=3.48). While on I registered for VAT using i-TAX platform had a (M=3.12). Lastly, I use online platform to pay my VAT had a (M=4.21).

The research also sought to explain how the dependent variable has a relationship with the other three independent factors of the study. Tax stands as a major source of government revenue not only for developed countries but also for developing countries. The capital gains tax (CGT) has been reintroduced in Kenya as part of the government's efforts to increase revenue mean of 4.01. Capital gains tax reintroduction has been met with resistance hence suffering from poor return filling. The mean of 4.13. Tax performance is determined by the voluntary compliance of the parties involved hence the revenue collected depends on the awareness of this new tax

#### **Correlation Analysis**

A correlation coefficient enables the researcher to quantify the strength of the linear relationship between two ranked or numerical variables (Smith, 2010). Pearson correlation analysis was done to determine the relationship between study variables. A correlation coefficient value (r) in the range of 0.1 to 0.29 is considered weak, 0.3 to 0.49 is considered moderate while 0.5 to 1.0 is considered strong extracts from O'Brien, 2007. Table 4.11 indicate that technology usage is positively correlated with VAT performance (r= 0.697 and p=0.007<0.05)

# See annex table 1.5 Correlation analysis

# Model Summary

The results in Table 4.12 indicate that technology usage had a positive correlation with tax performance up to 68.1% or (R= 0.681). Moreover, it reveal that technology usage caused a variation of 46.4% or (R2=0.464 and adjusted R2=0.364) on Tax performance. This implies that the remaining 53.6% of the change was caused by other factors not included in the model

### See table 1.6 Effect of technology usage on tax performance Analysis of Variance

The ANOVA-Analysis of Variance is used to show how well the adopted mode fits for use in the study. The findings were summarized on the table 4.13.

#### See annex table 1.7 Anova

The Regression analysis shows that the independent variables and dependent variable were statistically significant. A unit change in technology usage increase tax performance by 0.315 *See annex table 1.8 Regression coefficients* 

## Discussion of the Findings

The objective of the study was to establish the effect of technology usage and capital gains tax performance among landlords in west of Nairobi Kenya. Regression analysis shows that, unit change in technology usage increase tax performance by 0.315. Further, study found out that automation of services was statistically significant at a p value of 0.000.The study concurred with Stuart (2008) who argues that higher CGT rates might discourage saving, investment and entrepreneurship, but these could be encouraged in better-targeted ways. On the other hand, low rates of capital gains tax are essential to reward difficult and risky entrepreneurial activity

### Summary of Findings

The finding shows technology usage affect capital gains tax performance among landlords in west of Nairobi Kenya. Inferential statistics further reveal a positive and statistically significant correlation is observed between technology usage and capital gains tax performance. Also the Regression analysis confirms that there was a positive significant linear relationship between technology usage and capital gains tax performance among landlords in west of Nairobi, Kenya.

### 6.Conclusions and Recommendations

Based on the foregoing findings, the study concludes that technology usage plays a significant role in the capital gains tax performance among landlords in west of Nairobi Kenya. Thus the study recommends that the government and KRA being the Tax Administration Authority should formulate policies that are tailored to augment the digital realm and the tax base expansion focusing on property taxes such as adoption of block chain management for seamless and optimal collection of property taxes.

#### **Suggestions for Further Research**

Further research can be done by expanding the scope of coverage to include other possible determinants such human behavior with regard to lock in effect, tax payer education among other factors. This would help leverage other factors that can enhance CGT and property taxes performance.7.

#### 7.References

- [1.] Abbott, D. (2008). Encyclopedia of Real Estate Terms, 3rd ed., Delta Alpha Publishing, London
- [2.] Amatong, D. Juanita, F.(2018).Taxation of Capital Gain Tax in Developing Countries
- [3.] Babawale, G.K. and Nubi, T. (2011). "Property tax reform: an evaluation of Lagos state land use charge", International Journal of Law and Management, 53. 2. 129-148.
- [4.] Babawale, G.K. and Omirin, M.M. (2011). "Valuers' and valuation firms' characteristics as causes of inaccuracy in valuation", Mediterranean Journal of Social Sciences, 2.3. 89-103.
- [5.] Bahl, R. (1998). "Land taxes versus property taxes in developing and transition countries", in Netzer, D. (Ed.), Land Value Taxation: Can It and Will It Work Today?, Lincoln Institute of Land Policy, Puritan Press, Hollis, NH, pp. 141-171
- [6.] Chandler, D. (2000). Technological or Media Determinism. Aberystwyth: Aberystwyth University
- [7.] Dillinger, W. (1991), "Urban property tax reform: guidelines and recommendations", World Bank Urban Management Program Tool No. 1, Washington, DCFinance Act (2020)

- [8.] Gathuri, J.W. (2019). Factors affecting Capital Gains Tax Performance.Unpublished PGD Project.
- [9.] Gefald,D.M.(2012). Capital Gains Harvesting With Changing Tax Rates: Another UpdateCapital Gains Harvesting With Changing Tax Rates," 27(3)
- [10.] Julie, J. (2017). Theory of International Trade and System Usage. Journal of Economic Perspectives,
- [11.] KRA, (2021). Kenya Revenue Authority, Domestic Taxes Revenue Analysis Periodic Report.
- [12.] McLuhan,M.( 1964). Technological Determinism Theory in the Arena of Social Media

- [13.] Kenya Property Developers Association (2021)
- [14.] McCluskey, W.J. and Plimmer, F. (2007). "The potential for the property tax in the 2004 accession countrie Central and Eastern Europe", RICS Research Paper Series,
- [15.] Mugenda, A., & Mugenda, O. (2013). Research Methods: Quantitative and Qualitative Approaches. Nairobi: Acts Press
- [16.] Musunu, Z. (2000). Implementing Property Tax in Tanzania. Lincoln Institute of Land Policy Working paper.
- [17.] OECD, (2021). The Stability of Properties of Immovable Property Taxation. Evidence of OECD countries.

#### Annex

# Table 1.1: Test of Reliability

Factor	Number of	Cronbach Alpha score	Conclusion
	Items		
Technology usage	6	0.875	Reliable
Capital gains tax performance	3	0.762	Reliable

# **Table 1.1: Respondent Gender**

Gender	Frequency	Percentage	
Owners	48	75	
Employees	16	25	
Total	64	100	

# Table 1.2: Business Existence

	Frequency	Percentage	
18-25 years	25	39	
26-33 years	22	34.3	
34-41 years	7	10.9	
Over 41 years	10	15.6	
Total	64	100	

# Table 1.3 Experience of Respondents with Capital Gains Tax

Statement	Frequency	Percent

Total	64	100.0
Necessary measure	20	31.2
A deterrent measure	11	17.2
Costly	24	37.5
Tedious	9	14

# Table 1.4: Technology usage

Statement		Mean	Std. Dev
I have adopted online filing since is a legal requirement		4.64	0.993
I use online platform to file my tax returns in time		4.82	1.372
		3.48	1.176
I-Tax enables me to file my returns regularly			
		3.12	1.067
I registered for VAT using i-TAX platform			
I use online platform to pay my VAT		4.21	0.724
Mean	4.05		

# **Tax Performance**

Mean	Standard
	Deviation

The capital gains tax (CGT) has been reintroduced in Kenya	4.01	.728
as part of the government's efforts to increase revenue		
Capital gains tax reintroduction has been met with resistance hence suffering from poor return filling	4.13	.717
Tax performance is determined by the voluntary compliance of the parties involved hence the revenue collected depends on the awareness of this new tax	3.58	.609
Mean 3.90		

# **Table 1.5: Correlation Results**

		Tax Performance	Technology usage	
Tax performance	Pearson Correlation	1		
Automated tax	Pearson Correlation	0.697**	1	
system	Sig. (2-tailed)	0.007		

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

# Table 1.6: Effect of Technology Usage on Tax Performance

	Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.681 <sup>a</sup>	0.464	0.364	0.62131		

a. Predictors: (Constant), Tax performance

# Table 1.7: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.258	1	4.258	57.674	0.001
Residual <b>Total</b>	7.456 <b>11.714</b>	63 <b>64</b>	0.118		

# **Table 1.8: Regression Coefficients**

Model		Unstandardiz Coefficients	zed	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	0.048	1.079		0.04	0.027
	Technology usage	0.315	0.046	0.238	6.848	0.000