

Moderating the Effect of Taxpayer Engagement on the Relationship between Capital Gains Tax and Tax Compliance among Real Estate Businesses in Nairobi, Kenya

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Abstract

Even though there has been a progression towards the realization of more taxes from CGT, the same is not commensurate with the size of the real estate market in Kenya. Consequently, there have been proposals to increase the CGT rate from 5% to 12.5% but the proposals have been met with resistance with some preferring stakeholders' engagement to streamline the issues on compliance rather than increasing the rate. For this reason, the study sought to investigate the moderating effect of taxpayer engagement on the relationship between Capital Gains Tax and Tax compliance specifically among real estate property businesses in Nairobi, Kenya. The study adopted an explanatory research design with the targeted population being 467 real estate businesses from where a sample size of 216 was drawn. The specific objectives of the study were to investigate the effect of lock-in-effect on tax compliance among real estate businesses in Nairobi, the effect of capitalization effect on tax compliance among real estate businesses in Nairobi, and to determine the effect of taxpayers' engagement as a moderating variable in the lock-in effect and capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya. Data collection was done through a 5-point Likert scale questionnaire. Inferential statistics through the use of regression and correlation analysis was used to analyze variables. Regression analysis established a negative significant linear relationship between the lock-in effect and tax compliance among real estate businesses in Nairobi, Kenya with a beta coefficient of -0.119. Additionally, there was a negative significant linear relationship between the capitalization effect and tax compliance among real estate businesses in Nairobi, Kenya with a beta coefficient of -0.293 and lastly a positive but insignificant linear relationship between taxpayers' engagement and tax compliance among real estate businesses in Nairobi, Kenya with a beta coefficient of 0.189. Also, there was a positive significant linear relationship between taxpayers' engagement moderating on lock-in-effect and tax compliance among real estate businesses in Nairobi, Kenya with a beta coefficient of 0.521 and a negative insignificant linear relationship between taxpayers' engagement moderating on capitalization effect and tax compliance among real estate businesses in Nairobi, Kenya with a beta coefficient of -0.258. The study concluded that the lock-in effect and capitalization effect had a negative and significant effect while tax engagement had a positive and insignificant effect on tax compliance among real estate businesses in Nairobi, Kenya. However, taxpayers' engagement

as the moderating variable was found to play a significant role in tax compliance among real estate businesses in Nairobi, Kenya. The study recommended that KRA should create more awareness among taxpayers on the impact of lock-in effects and capitalization effects on the economy and why it is a vital aspect for consideration.

Keywords: Taxpayer engagement, capital gains

1. Introduction

1.1 Background of the Study

Governments rely heavily on taxes to finance their economic activities. According to the most recent data, 80% of government activities are financed largely through taxation (International Centre for Tax and Development, 2019). Therefore, in the process of development, states have changed the patterns of taxation, to provide emphasis on broader tax bases (ICTD GRD, 2020). Most countries have moved to expand their tax bases not only to increase revenue collection but also to standardize their bases in comparison to other states in the world (OECD, 2018).

According to the KRA Tax Compliance Report, the FY (2020/2021) total revenue collected was at KES 1.669 trillion an improvement from KES 1.607 trillion collected in the FY 2019/2020. The revised revenue estimates for the financial year 2019/2020 though was Kenya shillings 2.7 trillion which was an increase from the estimates of the financial year 2018/2019 of 1.505 trillion (KRA, 2019). Out of this budget, the tax revenue accounted for Kenya shillings 1.5 trillion, non-tax revenue Kenya Shillings 149.2 billion, domestic borrowing Kenya shillings 664.4 billion while external loans and grants amounted to 301.2 billion Kenya shillings. Tax revenue accounts for over 55% of the total government budget. Compared to global figures in the OECD countries and regional blocks, tax compliance is still behind these countries and there is a need to do more (OECD, 2020). Kenya Revenue Authority reports that for the past ten years from KES 707 billion in FY 2011/12 to KES 1.669 trillion in FY 2020/21 which is more than double the revenue that has been collected. Part of the efforts to double the collection has been the adoption of stakeholder engagement where KRA has become more approachable and ready to dialogue issues pertinent to taxpayers. This has created a productive and improved tax environment encouraging more compliance and multi-stakeholder agencies' cooperation to seal revenue loopholes (KRA, 2021).

To plug the gap in revenue deficit, Kenya reintroduced the Capital Gains Tax (CGT) in 2015 to increase the tax base by ensuring that from every 5% gain made on the sale of property, the same is subjected to tax. The introduction followed the amendment of the Income Tax Act in 2014 to give authorities the right to impose the tax on both moveable and immovable property at the rate of 5% of the gains made. The payments are made through the iTax platform and the same is a final tax that cannot be offset against other incomes. The 8th Schedule of the Income Tax Act 2014 provides for exemptions, but the same is still subject to assessment by the Kenya Revenue Authority upon application (PWC, 2019). Notably in the year 2015, KRA collected Kenya Shillings 580 million from CGT against a set target of Kenya Shilling 391 million approximately. In 2017 the CGT collection jumped to 635 million and in the financial year 2018/2019 jumped to Kenya Shillings 2.951 billion in the financial year 2019/2020 CGT recorded 51.9% growth to collect approximately Kenya Shillings 4.483 billion against the 151% growth projected in July 2019 with the enhancement of the iTax system (KRA, 2019/2020). Even though there is a progression towards a collection of more taxes from CGT, the same is not commensurate with the size of the real estate market in Kenya. There have been proposals to increase the current CGT rates from 5% to 12.5 % to increase revenue collection and enhance equality and fairness in tax but the proposals were opposed by various stakeholders requiring more deliberations and the Income Tax Amendment Act, 2019 retained the same at 5%. Notably, the study by Kemmeren (2018), revealed that capital gains tax is determined by a number of factors such as lock-in-effect, capitalization effect and taxpayers' engagement. Akhtar (2015) in his book *Capital Gains Tax in Theory and Practice*, stressed that the theory of taxing capital gains from businesses is affected by a number of factors that include supply, demand, investors' risk management strategies, government actions and general information that is available to the public informing such investments. This study will therefore attempt to investigate the moderating effect effects

of taxpayers' engagement on the relationship between Capital Gains Tax and tax compliance.

1.1.1 Real Estate Development Market in Kenya

According to the Kenya National Housing Survey, the aggregate number of houses constructed yearly is approximately 30,000 whereas the demand is estimated to be about 150,000 (National Housing Survey, 2013). According to Knight Frank's (2011) Prime International Residential Index (PIRI), Kenya was reported to have experienced a global increase in the prices of its luxurious real estate with the value of Nairobi's prime real estate shown to have grown by 25% while at the Kenyan coast the same went up by 20% outdoing other major cities like Miami (19.1%), London (12.1%), Moscow (9.8%), New York (3.1%), Shanghai (-3.4%) and Singapore (4.7%) (Muli, 2019). The real estate market grew at a moderate rate of 6.1 percent in 2020, down from 13.2 percent in 2019. This was largely due to a general drop in transactions due to the difficult economic environment in the aftermath of the COVID-19 pandemic, which had negative consequences for the sector, as well as movement restrictions that impacted all sectors (Cyttonn, 2021). Despite this, the Kenyan real estate sector has been claimed to have grown enormously over the last two decades, as indicated by its contribution to the country's GDP, which increased from 10.5 percent in 2000 to 12.6 percent in 2012 and 13.8 percent in 2016. (Cyttonn, 2021). The real estate investment opportunities were reported to be primarily in Nairobi County, with areas such as Rosslyn, Ridgeways, and Ruiru, while apartment investment opportunities were reported to be in satellite towns such as Thindigua and Syokimau, as well as the upper mid-end segment in areas such as Kilimani, according to Cyttonn 2021 Markets outlook (Cyttonn, 2021). The main market trends include affordable housing where employees will be required to make mandatory contributions towards the acquisition of homes, alternative cities that are self-sufficient in terms of accommodation, work and entertainment, green building technology where green building technology is employed in construction.

The main laws governing the real estate sector in Kenya include the Constitution of Kenya, 2010, the Land Act of 2012, the Land Registration Act, of 2012, the Sectional Properties Act of 2020 which provides for the division of buildings into units, the Income Tax Act and the Stamp Duty, Act. The Income Tax Act provides for the taxation of the gains realized from the sale of property at 5% on the gains made while the Stamp Duty Act provides for the payment of stamp duty at 2% and 4% depending on the location of the property and at 1% on the transfer of shares in a company.

1.2 Statement of the Problem

Kenya depends on revenue to enable economic development and finance its operations and development projects. Despite this direct relationship between revenue collection and economic growth, revenue collection in Kenya

is yet to meet the set targets despite the increase in tax bases including the reintroduction of Capital Gains Tax in 2015 to boost revenue collection. According to the data from Kenya Revenue Authority (2021), the tax realized from CGT was Kenya Shillings 635 million in 2017 and in the financial year 2018/2019 it moved to Kenya Shillings 2.951 billion and in the financial year 2019/2020, it recorded 51.9% growth to collect approximately Kenya Shillings 4.483 billion against the 151% growth that had been projected in July 2019. (KRA, 2019/2020). Despite the progression towards realization of more taxes from CGT, this is not still commensurate with the size of the real estate development market in Kenya which has been growing drastically as witnessed by its contribution to the country's GDP which grew from 10.5% in 2000 to 12.6% in 2012 and 13.8% in 2016 (Cyttonn, 2021). Consequently, there have been proposals to increase the CGT rate from 5% to 12.5% to increase revenue collection, move it closer to other East African states and enhance equity and fairness in tax. The proposals were however met with resistance with some preferring stakeholders' engagement to streamline the issues of compliance as opposed to increasing the rates. Consequently, the Income Tax Act amendment of 2019, retained the rate at 5%.

Withstanding the above, a report by Hass Consult (2019) showed that there were about 4000-6000 units of real estate sold out in the year 2019. This according to the analysis by the Kenya National Bureau of Statistics (2020), on the property sector growth, depicted a declined growth of 16.2% in 2016 to 6.1% in 2020. Therefore, with a declined growth of 6.1% in property market performance equating to a 51.9% improvement on the revenue from CGT, it can be inferred that more revenue is bound to be realized from this sector even at the prevailing rate of 5%. It would therefore be critical to understand the moderating effect of taxpayers' engagement on the relationship between CGT and tax compliance among real estate businesses in Nairobi, Kenya. The study will not only aim at improving the environment of tax compliance but equally contribute to the body of knowledge that currently is scarce in the area of capital gains tax.

1.3 General Objective of the Study

The general objective of the study was to evaluate the effect of capital gains tax and taxpayers' engagement on tax compliance, among real estate businesses in Nairobi, Kenya.

1.3.1 Specific Objectives

- i. To investigate the effect of lock-in on tax compliance among real estate businesses in Nairobi, Kenya.
- ii. To evaluate the effect of capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya.
- iii. To determine the effect of taxpayers' engagement on tax compliance among real estate businesses in Nairobi, Kenya.
- iv. To investigate the effects of taxpayers' engagement as a moderating Variable on the lock-in effect and

capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya.

v. To investigate the effect of taxpayers' engagement as a moderating Variable on the lock-in effect and on tax compliance among real estate businesses in Nairobi, Kenya.

vi. To determine the effect of taxpayers' engagement on capitalization effect as a moderating Variable on tax compliance among real estate businesses in Nairobi, Kenya.

1.4 Research Hypotheses

H01: Lock-in effect has no significant effect on tax compliance among real estate businesses in Nairobi, Kenya.

H02: The capitalization effect has no significant effect on tax compliance among real estate businesses in Nairobi, Kenya.

H03: Taxpayers' engagement has no significant moderating effect on tax compliance among real estate businesses in Nairobi, Kenya.

H04a: Taxpayers' engagement has no significant moderating effect on the relationship between the lock-in effect and tax compliance among real estate businesses in Nairobi, Kenya.

H04b: Taxpayers' engagement has no significant moderating effect on the relationship between the capitalization effect and tax compliance among real estate businesses in Nairobi, Kenya.

1.5 Significance of the Study

The study aimed at evaluating the moderating effects of taxpayers' engagement on the relationship between CGT and tax compliance, among real estate businesses in Nairobi, Kenya. The significance of the study will be to various sectors of the economy and generally contribute to improved tax compliance.

To the Government of Kenya, the findings of the study may be used to improve the policies and regulations governing the administration of CGT and ensure that issues that currently may present challenges in the administration of capital gains tax are addressed toward greater collection of revenue and broaden the areas under which currently capital gains tax is administered.

The study findings may be used by the Kenya Revenue Authority, Capital Markets Authority, and the business community to understand the effect of securities lock-in and how this impacts tax compliance. The findings may further be used to improve the interaction between the taxpayers, the Kenya Revenue Authority, and the Capital Markets Authority with the aim of contributing to effectively raising the required revenue for the government's growth and development agenda.

The study findings may further be used by the taxpayers, the revenue authority, and the public to work on principles, mechanisms, and frameworks for engagement, especially on issues that are contested towards improved understanding and compliance. The findings may also improve on resolving

disputed issues out of courts and embracing alternative dispute resolution mechanisms for enhanced collection of revenue and decreased cost of litigation and collection.

To the academia, the study findings may be used by various scholars to improve their knowledge, and hence contribute to academic work through referencing. The findings may also be used by other scholars to build on this research work for the benefit of all humanity.

1.6 Scope of the Study

The study was done in Nairobi, Kenya and it was limited to entities engaged in the buying and selling of immovable property. The region was selected for the study because there are many companies within Nairobi that are involved in the real estate business and also deal with property within the city and its environs. The area facilitated the research to get quality data from all the respondents including the owners/ directors of the firm. The focus of the study will be only on immovable property that is land and buildings. The building will be either for residential or commercial purposes.

2. Literature Review

2.1 Introduction

The chapter began with a look at the relationship between the variables in the concept of the study. It further proceeded to look at the theories that were relevant and supported the study. The chapter then looked at the empirical review of the literature that was available, either currently being conducted studies or past or concluded ones. The chapter went on to identify the research gaps, summarized the reviewed literature and then finally concluded with the conceptual framework which showed the relationship between the variables in the diagram.

2.2 The Concept of the Study

The concept of the study was to investigate the moderating effect of taxpayers' engagement on the relationship between Capital Gains Tax and tax compliance, among real estate businesses in Nairobi, Kenya. The study therefore had four variables namely, tax compliance, lock-in-effect, capitalization and taxpayers' engagement. The assumption of the study was that tax income was dependent on capital gains tax and that capital gains tax was contributing to the overall revenue generated by CGT. The relationship was further discussed in subsequent sub-topics.

2.2.1 Tax Compliance

Tax compliance can be defined as the ability of taxpayers to comply with all the required tax laws, rules, and regulations in declaring, filing, and paying the taxes due (Slemrod, 2016). Tax compliance directly contributes to either better or underperformance of tax revenue (PwC, 2015). For the performance of revenue to be quantified it must depend on those factors that create it, these factors include the taxpayer's willingness to comply with all the applicable tax laws, rules and regulations. According to Kenya Revenue Authority (2020), of the total Kenya shillings 1.607 trillion collected in

the FY 2019/2020; domestic taxes where CGT is domiciled, contributed Kenya shillings 1.092 trillion. This contribution translated to a performance rate of 97.8% against the target. In other words, it fell short of the target by 2.2%. Other contributors to domestic tax performance included domestic VAT, domestic excise, corporate tax, and PAYE, among others. Therefore, it is evident that tax performance depends on capital gains tax as one of the contributors to its performance. Some of the key contributors of CGT that affect compliance include the lock-in effect, capitalization, and taxpayers' engagement. If any of these factors underperform then the CGT will lead to total revenue underperformance.

2.2.2 Lock-in-Effect

The lock-in effect is the act of investors in the property market whether tangible or intangible holding on to their properties that have appreciated in value from being transferred or sold or from selling to avoid paying capital gains tax charges during such transfer. When the lock-in effect is viewed from the point of tax performance, it denies the revenue authority the opportunity to realize revenue within financial year projections. The lock-in effect may result in poor payment of capital gains tax (CGT) and therefore affect tax compliance even though there are other factors associated with it (Ricardo & Rosa, 2007). Therefore, in the study, the assumption was that the lock-in effect caused revenue to underperform because businesses in real estate, failed to comply accordingly.

2.2.3 Capitalization Effect

Capitalization is an act of investors only investing in areas where the price of a property is affected positively by the market forces of demand and supply. Since investors' aim is to maximize profit or get the best value for their investment, they tend to be wary of tax implications which could shift prices either upwards or downwards (Devereux et al, 2015). Since tax compliance is dependent on the performance of individual tax bases; when prices are high investors are not likely to invest and hence deny the revenue authority the chance to meet its target revenue thresholds. Whereas when the price is low as a result of oversupply, investors would lose investment hence reducing the overall tax performance whereby underperformance could be attributed to CGT. Because when CGT is computed, the adjusted costs would be so high that the CGT payable might be minimal in relation to the size of the investment and the actual gains. This would affect the performance of revenue gained from capital gains tax.

According to Omondi, D. (2019), taxpayers may have a role in tax compliance; as has been evidenced by several reported court cases emanating from the Law Society of Kenya, Kenya Bankers Association, Kenya Association of Stockbrokers and Investment Banks, against Kenya Revenue Authority. In the majority of these cases, KRA was found at fault and either ordered to suspend or stop completely

collecting CGT in various circumstances (Kenya Law Reform, 2018, ICPAK, 2018). Since taxes are collected from taxpayers, their engagement is important to revenue generation. The study assumed that taxpayers' engagement affected tax compliance since they were likely to derail the process collection of CGT and even at times when matters were disputed before courts, win against the tax authority. The study attempted to determine how their engagement or disengagement affected tax compliance.

2.3 Theoretical Framework

The study was supported by three theories. The first was the Benefit Theory of Taxation according to Wicksell (1896) and Lindahl, (1919) who were economists at the Stockholm School. The other theory was the utility theory founded by Jeremy Bentham between 1748- 1832. These theories are further discussed below.

2.3.1 The Benefit Theory of Taxation

The benefit theory was initially founded by Wicksell and Lindahl in 1896 and 1919, respectively. The theory advances that tax should be paid based on the benefits that taxpayers derive from the state. According to Neumark and McLure (2013), the more benefits a person derives from the activities of the state, the more the person should pay to the government. The concept helps to determine which activities the government will undertake and who will pay for them. Neumark and McLure (2013) however noted that it is difficult to implement this theory for most of the public services because citizens do not want to pay for the public goods and services provided by the government unless they can be excluded from the benefits of service. The critics of this theory argue that the principle of tax demands that the taxpayers make mandatory contributions to the state in order for them to enjoy a public good from the state. The link therefore between the benefits conferred and the benefits derived are rather blurry and as such no quid pro quo exists could be deemed to exist. If the principle is however adopted to the letter, the poor would end up paying more taxes based on the benefits they derive from the state (Wasao, 2014).

The other criticism is that when information about marginal benefits is obtained from the individuals themselves, they tend to underreport their valuation for a particular good, giving rise to the preference revelation problem. If however, the taxpayers could choose what their taxes would do, then they would have no incentive to hide their true preferences. Notably, the value of property in areas where the government has invested greatly in infrastructure and other social amenities is likely to be higher than in areas where the government has invested less as observed by the study by Dempsey (1960). The benefit theory of taxation supports the dependent variable, tax compliance since real estate businesses that have firsthand information target areas where marginal returns are likely to be high. This is because of the numerous services obtained from the government including

road, water, and electricity, which necessitate the payment of more taxes as per the benefits received. The argument however remains what of those who get the services for free and do not have the capacity to tap into the resources. It would appear biased to those who can develop the property and sell it higher. Therefore, this calls for the review of the second theory. However, according to the current CGT rules, only transactions that are above Kenya shillings of 3 million for property and more than 50 acres for agricultural land should be subject to CGT. The question that would suffice to investigate is of those individual real estate dealers and businesses who may sell several pieces of land and buildings over a period of time yet still fall below the minimum threshold for CGT purposes. The understanding of the benefit theory, therefore, would enable the research to accurately seek answers from respondents on the areas in which the theory is criticized and facilitate proper evaluation of the issues raised during the study.

2.3.2 Utility Theory

The utility theory proposed by Jeremy Bentham between 1748-1832 is centered on the assumption that the level of satisfaction can be measured using units called utils and the quantities obtained estimated across people. The theory postulates that utility functions give a way to measure investor's preferences for wealth and the amount of risk that they are willing to undertake in the hope of attaining greater wealth. The utility function, according to Norstad (1999), assesses an investor's relative preference for various levels of total wealth. The purpose of an investor is to maximize the expected utility of the return on his or her investment, which is the underlying premise.

The utility function can be used to describe the amount of preference in a set of choices, and utility theory aims to explain how people behave when faced with a set of options. The idea goes on to say that when people are presented with a variety of consumption bundles, no matter how many there are, they can always rank them in some order based on their preferences. This means that people frequently rate their choices based on how satisfied they are. This is especially typical when people are faced with property and investment decisions (Kahneman, Wakker & Sarin, 1997).

As such, and according to the utility theory people behave as if they make judgments by assigning fictional utility values to the underlying monetary values. The decision maker sees various levels of monetary value and converts these values into various hypothetical terms, processes the decision in utility terms, and then returns to monetary terms. The decision is made in utility terms when investors have inputs to an investment and evaluate the results of their decisions in monetary terms (Kanazawa, 2004). Individuals act as though they are maximizing utility, not the levels of observed monetary gains, because utility signifies degrees of contentment. Most attempts to evaluate utility have one main

flaw: the measurements cannot be used in the way Bentham intended. This is because the difficulty of measuring an act's whole welfare ramifications has always been one of interpersonal comparability. There is no justification for merging utility measures from different individuals into meaningful aggregates (Kahneman, 2000).

To the study, the theory of utility relates to those individuals and businesses who tend to seek preferences on what investment and which geographical area to invest in satisfies them most. The theory posits that when individuals are faced with a combination of consumption bundles, they usually rank them in order of preference and to those that would give them the most satisfying outcome. This is particularly important to the taxpayers' engagement as a moderating variable; where when taxpayers have at their disposal sets of choices to make on their investment and where most, they would get satisfying outcomes, the investors are likely to invest in those areas expecting greater returns. In the event that these preferences yield good returns then it is not only beneficial to their self-satisfaction but also to the taxman as much revenue is likely to be collected from such individuals and entities. This therefore mediates between lock-in-effect, and capitalization effect and tax compliance.

The theory further supports the independent variables of lock-in effect and capitalization. When individuals are faced with utility functions where there are choices on investment based on the perceived outcome, the individuals and business investors are likely to either wait or proceed with their investments based on the outcome. The act of waiting for a favorable moment to come to invest is the lock-in effect; these could be informed of many factors notably tax liability. Whether to invest or hold is an individual's utility preference, however, this has effects on the tax revenue that would be collected within a specified period. On to the capitalization, still, individuals and entities investing in real estate would still want to take advantage of the provisions that are allowed according to the existing tax laws based on their investment. A number of investors in real estate, have invested in areas considered covered by special economic zones, and those areas that one can easily recover their investment through the utilization of capital deduction allowances.

It would be critiqued that it is not easy to combine individuals' investments and aggregate them to assess the impact that this would have on the tax revenue that would have otherwise been collected.

2.3.3 Transaction Cost Economics Theory

The theory of Transaction Cost Economics theory was propagated by Commons (1931) who posited that transactions form the basis of economic thinking. According to Cheung, et al (1937), the cost of a transaction is incurred while making any commercial through the market. The general assumptions according to Williamson (1981) are that transaction costs depend on the frequency of the transaction, specificity of the

buyer and seller, uncertainty of the transaction, limited rationality and opportunistic behavior of the parties involved. The theory proposes that when the seller is equipped with superior information about property market prices, they are likely to take advantage of this information to increase costs to the buyer (Muli, 2019). The theory therefore helps both the buyer and the seller to understand when it is more efficient for a transaction to occur within the market. According to the findings by Tahar, Soner and Touzi (2005) and Ricardo and Eros (2007) capital gain taxes resulted in an increase in transaction costs thus limiting investors' preference to sell their securities. The heightened transaction costs meant increased costs to sellers and lower returns, a fact that caused them to opt away from selling the securities. Jones (2010) in his study further noted that the increased cost of the transfer contributes to the lock-in effect, CGT also contributed to the increase in the cost of portfolio rebalancing and as such those who were holding securities were reluctant to sell them and buy other securities since they did not want to incur the high cost of portfolio rebalancing caused by CGT. Therefore, CGT resulted in both the lock-in effect and capitalization effect where the lock-in effect reduces the supply of property in the market while the capitalization effect reduces the demand for the same property in the property market thus limiting the level of compliance and amount of revenue collected. The theory further supports the moderating variable taxpayers' engagement because the individual taxpayer is viewed as a rational economic agent, who assesses the costs and benefits of economic transactions and therefore chooses not to pay if the benefit of non-compliance outweighs the costs (Walsh, 2012).

2.4 Empirical Review

The study aimed at evaluating the effect of capital gain tax on tax compliance, among real estate businesses in Nairobi, Kenya. The study also investigated the effect of lock-in-effect on tax compliance, the effect of capitalization and the effect of taxpayers' engagement in tax compliance as moderating variables between lock-in-effect and capitalization on tax compliance, among real estate businesses in Nairobi Kenya. The following section reviewed the existing studies; both completed and ongoing on the subject of capital gain tax and tax compliance as per the variables of the study. These studies' findings were critiqued and any weaknesses were undead on to strengthen the need for this study.

2.4.1 Capital Gains Tax and Tax Compliance

Adam Smith Institute (2009) conducted a study on the impact of capital gains tax on tax compliance. The study adopted descriptive research for comparative analysis. The study compared CGT applicable rates from 1990 to 2004 in the United Kingdom. The study findings revealed that an increase in CGT rates led to an increase in the government's revenue. The study also reveals that when capital gain tax rates were reduced in the years 2002 and 2003, whereby the

applicable CGT rates on business assets held over 2 years were reduced to 10%, the government's revenue from capital gain tax increased. Consequently, the high rates of CGT did not translate to increased government revenue collection. The findings were therefore in contradiction to the earlier findings by Auerbach (1989) who in discussing the effects of changing CGT rates concluded that the behavioral effects of capital gains taxes were too inexact for revenue calculation and that there was truly little reason to anticipate that a reduction in CGT rates would raise revenue.

According to the study conducted by the Joint Economic Committee (1997), in the United States on the effects of CGT on revenues, the study found that a reduction in the capital gains tax rate created three effects that tend to increase tax revenue (Knight, 1997). The first is the unlocking effect, which expands the tax base because of an increase in revenue due to the lower tax rate. Second, is the dynamic effect that measures the increase in tax revenue generated from the impact of lower tax rates on economic growth? The third effect measured the increased tax revenue resulting from an increase in the value of existing assets. This is because when capital gains tax rates are lowered, the value of existing assets necessarily increases thus attracting buyers and eventually leading to higher revenue collection (Knight, 1997).

According to the study conducted by Liliana (2015), on tax performance assessment in Scandinavian Countries, the study adopted both descriptive and quantitative methods using multivariate analysis instruments. The study revealed a high level of tax performance explained by the existence of two advantages: tax systems' dependence on direct taxation and low public budgetary deficits since 2009 before these countries faced budgetary surpluses. The study emphasizes the importance of having good tax systems that are easy and direct to administer taxation. Such a system enhances tax compliance as tax revenue would almost be predictable since all citizens are captured in the systems and their tax liabilities are out rightly known. It is imperative the study investigates the tax compliance from one of the taxes and assesses the relationship that exists between them.

2.4.2 Lock-in-Effect and Tax Compliance

Prior studies indicate that the lock-in effect from taxing capital gains for securities can be viewed as the impact of a tax burden on investment decisions. Investors preferring to avoid such burdens tend to reduce their participation in stock-investing activities or even discontinue investing in stock to invest in low-tax or tax-free investment commodities. This change in investor behavior would reduce or stagnate stock market trading volumes, affecting the liquidity of stock market trading, and often intensifying price fluctuations (Somers, 1948). Dai et al. (2008) demonstrated that the equilibrium impact of capital gains taxes reflects both the capitalization effect and the lock-in effect meaning, that capital gains taxes decrease supply.

Sahm (2008) has found taxation of capital gains upon realization of accruals provides incentives to hold winners as long as possible and sell losers immediately. The lock-in effect possibly distorts the liquidation and investment decision.

According to a study conducted by Feng (2019) on the capital gains lock-in effect on earnings quality in Singapore. The study adopted a descriptive research and regression statistical analysis. The findings of the study suggest that taxation on capital gains relates lock-in effect and that the lock-in effect improves the value of the locked-in properties. This might hurt the revenue goals for the period under which the property is locked but would equally generate more revenue when the property is finally transferred. Ming (2015) conducted a study on the lock-in effect of capital gains tax for securities. The study applied the classical linear regression model and DID model. The findings of the study show that levying capital gains tax affects the securities and changes in trade volumes do occur since investors are wary of those properties that attract capital gains tax and would either lock in or completely avoid it. Though there is a scarcity of literature on the lock-in effect of capital gains tax on tax compliance in the region and in the country, the view reviewed literature points to the assumption the hat lock-in effect has some impact on tax compliance because when stocks are not sold, the government cannot levy taxes and therefore these impacts on the ability to meet revenue targets. It would be important for the study to investigate the effect of lock-in effect on tax compliance in the local context. This will help to understand further to what extent the effect occurs on tax compliance and probably if that is the case improve on the policies and regulations that would contribute effectively to improved tax compliance.

2.4.3 Capitalization Effect and Tax Compliance

According to the Income Tax Act (ITA), the government is provisioned for allowances to businesses in certain sectors of the economy and in the articular and specific geographical placement of these businesses. To those companies that have capital investments, and have invested over Kenya Shillings 200 million, they can claim up to 50% deduction, wear, and tear, among others for the first-year post-investment and 25% in subsequent years on a reducing balance of the investment volumes. Devereux, et al. (2015) conducted a study on corporate incentives and firm performance. The study compared data from the United Kingdom companies from the years 2002 to 2004. The study findings revealed that government incentives to attract corporations to invest had a strong response from both local companies and multinationals. In other words, companies tend to embrace government incentives to facilitate capitalization, among others.

Athi-River EPZs in Kenya were studied by Thuita (2017) to see if tax incentives had an impact on foreign direct investment (FDI). Self-administered questionnaires were used

in this descriptive survey. The study found that the use of tax holidays has a significant impact on attracting and retaining FDI. Tax incentives appear to be more favorable to the manufacturing sector than other industries, according to the study.

However, it was also noted in the study that the duration set for tax holidays is shorter for the firms to effectively recoup their investment. Action Aid (2012), notes that tax holidays deprive the government of much-needed revenue through corporate tax exemptions and capital deduction allowance. Even though Kenya's government has expressed interest in abolishing tax holidays, not much of the agenda has been implemented despite the disadvantages of tax holidays outweighing the advantages.

According to Klemm (2009), the cost of lost direct revenue is zero if incentives are only applied to investments that would have occurred regardless. To put it another way, even if incentives have no impact on investment, the entire tax revenue waived makes up the direct cost. Between the extremes, direct revenue losses are most likely to occur. Consider indirect costs as well, as they can have a significant impact on your bottom line. Even if taxes are waived on an investment that would not have occurred without incentives, there may be indirect revenue losses if that investment crowds out other, more taxable, investments. With more investment and activity in general, there may be additional revenue gains. It is possible that these gains will include additional taxes on workers' wages or taxes on the materials they use. Capitalization and capital allowance may be difficult to separate for most investors as Dai, Maydew,

Shackelford and Zhang (2008) found in their study on Capital Gains Taxes and Asset Prices. However, qualifying capital investments for capital deductions occur along the investment path, even when the investor's initial motivation is to simply increase their capital. This occurrence creates a situation where investors feel that they should only pay income tax as opposed to paying CGT. A study conducted by Sikes (2014) on the turn-of-the-year effect of tax-loss-selling by institutional investors, reiterates that capital allowance could be facilitating the underperformance of CGT due to the confusion caused to taxpayers and the inability of the tax authorities to clearly separate these competing factors.

Eichfelder & Lau (2015) conducted a study on capitalization of capital gains taxes in Germany. They adopted qualitative methods and used a linear regression model to analyze the multiple variables in the study. The study findings revealed that the capitalization effect has an impact on tax compliance. The study also found that the capitalization effect is a function of the attention of the market participants. This means that the capitalization effect is controlled by the market forces of demand, where when CGT reduces prices are likely to go high when the available assets quickly sell out of the market.

In another study by Huizinga, et al, (2011) on Capital Gains Taxation and the Cost of Capital., the study employed a comparative analysis of 33 countries including the US, EU, and Japan nations. The findings of the study that capitalization is affected by capital gains tax rates where a low rate contributes to higher demand for assets. This behavior would in return lead to increased revenue collected from the exchange of such property.

Based on the studies reviewed, capitalization has some effect on tax compliance. Capitalization as expounded on in the reviewed literature, would affect tax compliance since investors' aims are to always maximize profits and also gain the best value for their investment. It would be premature, to attribute CGT underperformance to capitalization as there would be offsets and trade-offs when market forces react differently with the price. Other scholars have thought of incentives as avenues of tax leakage and that these should be abandoned. Therefore, it is critical for the study to evaluate the effect of capitalization on tax compliance in the case of real estate businesses to ascertain the levels at which capitalization has an effect on tax compliance.

2.4.4 Taxpayers Engagement and Tax Compliance

According to a study conducted by Pattiasina, et al, (2020), on determinants of taxpayer compliance level in East Indonesia. The study adopted a descriptive research model. Research shows that tax knowledge and tax penalties have a significant impact on taxpayer awareness. In addition, taxpayers' knowledge has a moderating effect on their compliance, according to the research. The role of taxpayer awareness, tax regulation, and understanding and influence on taxpayers' compliance is also examined by Rayahu, et al, (2017). 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 which then would improve revenue performance.

Malgorzata (2016) studied the typology of taxpayers and tax policy. The study adopted cluster analysis methods. The study findings suggest the norms regarding taxation should be fostered by the state through its education policy whereby the taxpayers can understand the ethics behind compliance. Kassa (2020), conducted a study on factors influencing taxpayers engaged in tax evasion, in Wodia Ethiopia. The study adopted both descriptive and quantitative research and data analysis methods. The findings of the study suggest that tax fairness, tax knowledge, and moral obligation significantly influence taxpayers to engage in tax evasion. That awareness of tax laws does not necessarily lead to full compliance as those who are knowledgeable may identify loopholes to evade paying taxes unless guided by moral obligations not to do so.

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's education has an effect on compliance across all tax bases including PAYE and others. It can be considered from the reviewed literature that taxpayers' engagement has benefits for compliance which ultimately leads to better tax compliance. It has been noted that some of the knowledgeable taxpayers would use the knowledge they have of the tax system loopholes to their advantage. As a result of this, tax compliance would be negatively impacted. Some academics argue that it is difficult to measure compliance. Since many real estate businesses may or may not be aware of the CGT, it is important to find out how the CGT affects their tax compliance.

2.4.5 Lock-in Effect, Capitalization Effect and Taxpayer Engagement

History has shown that taxpayers are yet to be receptive to the idea of paying taxes and often take advantage of the available information to minimize their tax obligation or manipulate their transactions so that they continuously fall within the exemption bracket. The low level of compliance amongst developing countries has been largely attributed to the lack of information on the various tax obligations and the failure of the public to see the benefits of the taxes imposed (Onuba 2012). Kenya Revenue Authority (KRA) has been at the forefront in organizing workshops to sensitize taxpayers on tax compliance and to tackle various administration challenges towards building overall stakeholder trust and improved relationship health (KRA, 2021). The objectives of stakeholder engagement are to enrich the taxpayers' understanding and concerns as far as taxation is concerned and to enhance the Authority's, continued renovation and risk mitigations. The engagements also aim at improving the taxpayers' knowledge of the Authority's administrative process by educating the taxpayers about their obligations and how to fulfill them by communicating clearly the outcomes or benefits of interventions and innovations by KRA that reduce transaction costs and time. In a case study for the VAT refunds formula conducted by KRA (2015), the multi-stakeholder decision-making process to resolve the administrative challenges of VAT refunds to taxpayers was shown to have positive results leading to the amendment of the formulae for working out VAT refunds, which had caused some manufactures to stop exporting in order to reduce the impact of non-refunded excess VAT on their cash flows. The stakeholder engagement was further shown to be critical in ensuring buy-in in major tax compliance initiatives. Consequently, in a survey conducted by KRA, to gauge the relationship health of KRA with its stakeholders, the survey scored KRA at 61.4% with insights on the level of trust confidence that stakeholders had in the engagement process (KRA, 2015).

Kirchler, et al, (2015) in the paper Co-operative Tax Compliance from Deterrence to Deference observed that tax compliance is of utmost importance for a state to provide public goods and redistribute wealth. Due to their unwillingness to pay their fair share of taxes, citizens have been found guilty of locking in profits while still benefitting from the public good (capitalizing) (Kirchler, 2015). It was proposed in the study on the "slippery-slope framework for tax compliance" (Kirchler, et al., 2008) that tax compliance could be achieved by increasing taxpayers' power and building trust in the tax system. Because citizens can become whistleblowers when they have more trust and power, it is possible for citizens to become whistleblowers when they have more trust and power. In a study by Maciejovsk, et al, (2012), on rationality versus emotions: the case of tax ethics and compliance, the study observed that rationality and emotions have a role to play in businesses that rely heavily on cash transactions which have been found to be particularly susceptible to low tax ethics. This is due to the paradigm shift in research where taxpayers are viewed as rational decision-makers, who evaluate the expected benefits and costs of avoiding taxes and opt to remain calm and cool when evading (Maciejovsk, 2012). As a result, policymakers should take into account the strong emotions triggered by reports about people's tax behavior in the public interest, which if there are arguments supporting honest tax paying, will encourage tax compliance. The study highlighted that the use of severe cases of fines and evasion when conducting various engagements with taxpayers for instance print media may lead to more evasion in the public rather than less as taxpayers weigh out the benefits of non-compliance.

2.5 Research Gaps

Adam Smith Institute (2009) conducted a study on the impact of capital gains tax on tax compliance, which revealed that an increase in CGT rates resulted in an increase in government revenue. According to research by the Joint Economic Committee (1997), a decrease in the capital gains tax rate had three effects: unlocking, dynamism, and an increase in tax revenue. This study was done in the United States (Knight, 1997). The high level of tax performance in Scandinavian countries was attributed to the existence of good tax systems and reliance on direct taxation, which promotes tax compliance, according to Liliana (2015). According to a study by Feng (2019), the lock-in effect of capital gains on earnings quality in Singapore was shown to be significant. The findings of the study show that capital gains taxation causes a lock-in effect, which in turn increases the value of the properties that are locked in, according to the research. A lock-in term can affect revenue targets, but it can also yield more revenue when it's time to transfer ownership of a property.

Locally and since the reintroduction of CGT in 2015, a couple of studies have been conducted on the effects of Capital Gains Tax on the economy. Muli (2019) conducted a study on

the Effect of Capital Gains Tax on Business Performance in Machakos, county. The findings were that Capital Gains Tax significantly affects the real estate performance of real estate business in Machakos Kenya due to the increase in transaction costs. Aondo (2019) conducted a study on the effectiveness of taxpayers' education on compliance for SMEs in Kenya. The study findings found that taxpayer's education has an effect on compliance across all tax bases including PAYE and others. Following the research conducted on CGT, few studies have tried to link the level of tax compliance in this sector with the lock-in effect and capitalization effect being moderated by taxpayer engagement to measure CGT compliance among the real estate business sector. This research will therefore look at the Effect of Capital Gains Tax and Taxpayer Engagement on Tax Compliance among Real Estate businesses in Nairobi Kenya to add to the existing literature regarding CGT.

2.6 Summary of Literature Review

The chapter reviewed the literature that existed in the subject under the study. The concept of the study was to investigate the effect of capital gains tax on tax compliance, among real estate businesses in Nairobi, Kenya. The dependent variable in the study was tax compliance while the independent variables were the effect of lock-in effect, the effect of capitalization and the effect of taxpayers' awareness on tax compliance.

The study assumed that the independent variables had an effect on the dependent variable either positively or negatively. The chapter also reviewed two relevant theories to the study; the benefit theory of taxation which posits that the citizens should pay taxes based on the benefits conferred on them by the government. However, scholars agree that it would be extremely hard to implement this principle as the poor would pay more taxes and therefore lead to injustice in the administration of taxes. The theory supported the study because it argued that those who had their property in areas that were serviced well by the government should ideally pay more on capital gains tax because the amenities such as roads, water and electricity boosted the value of their properties. The second theory reviewed was the utility theory which postulated that utility functions gave a way to measure investors' preferences for wealth and the amount of risk that they were willing to undertake in the hope of attaining greater wealth hence investors can lock in investment and utilize capitalization for increased gains.

Further in the chapter, the empirical review through past and current studies was done. Several studies tend to show the relationship between the study variables. Tax compliance was dependent on several issues that had emerged in the review. Some scholars suggested that systems, laws, policies, and regulations were critical factors that affected tax compliance. Some studies also suggested that the lock-in effect as an indicator of capital gains tax affected either positively or negatively based on prevailing market conditions tax

compliance. Capitalization even though is good has been shown to attract investors and contribute to increased employment which in turn leads to tax revenue. Some scholars however disagree that the gains might not actually realized if the forgone cost is more than the revenue gains made through other streams. Taxpayers' awareness has been reviewed as an indicator of tax capital gains tax which leads to increased compliance and hence affects tax compliance. Some scholars, however, were of the suggestion that knowledgeable taxpayers would use the weakness in the tax systems, rules, and regulations to evade paying their rightful taxes.

The chapter identified the gaps based on the reviewed literature. Most of the studies reviewed were from other regions with very few in the local context. As much as the subject of the study was reintroduced in Kenya recently, many scholars have not been interested in studying it. The few who had made attempts had not considered the variables under this study. This had therefore presented a gap that was utilized by this study not only to present findings to various stakeholders in the economy and improve on the area of tax compliance but contribute to the academic body of knowledge which currently was scarce. The chapter ended with the conceptual framework showing the interrelationship that existed between the study variables.

2.7 Conceptual Framework

A conceptual framework is about showing the interrelationships of various variables and how they are likely to affect each other (Wekesa, 2016).

Figure 1: Conceptual Framework

3. Research Methodology

3.1 Introduction

This chapter discussed the methods that were used to carry out the study. It began with setting out the research design, target population, sample procedure and sample size, data collection tools, validity and reliability of the research instruments, data collection procedure, data analysis technique and finally ethical considerations in the study.

3.2 Research Design

According to Burns and Grove (2001), researchers can plan and implement their study in a way that will help them achieve their research goals. As a result, there is a greater likelihood that the information obtained will be relevant to the actual situation. According to Lawrence (2012), a research design is a plan outlining techniques and strategies on how information is to be gathered for an assessment or evaluation that includes identifying the data gathering method, the instruments to be used, how the instruments will be administered and how the information will be organized and analyzed.

This study adopted an explanatory research design. Explanatory research design is primarily concerned with figuring out how and why things happen, as well as making predictions about what will happen in the future. It specifies the nature and direction of a relationship between or among

the variables being studied the goal is often to generalize the results to the population from which the sample is selected (Fowler, 2002). This design was appropriate for the study because it allowed the researcher to generalize the findings to a larger population. It entailed gathering and analysis of quantitative data to describe the specific phenomenon in its current events, trends, and linkages between different factors at that current time using regression methods to hypothesize these factors.

3.3 Target Population

Target population refers to the aggregate number of subjects or whole environment of concentration of the research as described by Oson and Onen (2011). The target population in this study comprised registered non-individual entities that carry the business of buying, improving the value and selling the property which is either land or buildings. These business entities were operating their businesses from Nairobi County. However, business entities may have their properties located outside of Nairobi County. The study focused only on those business entities that operated and filed their capital gains tax with the Kenya Revenue Authority within the year 2020.

The target population comprised of 467 businesses involved in real that had offices in Nairobi but could be carrying out their estate development businesses within the adjacent counties (Kenya Revenue Authority, 2021).

3.4 Sampling Procedure and Sample Size

This section described the strategies that were used to identify the main categories of respondents for the study.

3.4.1 Sampling Procedure

According to Kothari (2006), sampling enables the researcher to estimate unknown characteristics of the population and make generalizations with overall accuracy. For this study, a simple random sampling procedure was adopted where each individual or item had an equal chance of being represented (Cooper & Schindler, 2003). Stratified sampling was used in order to ensure that the different types of real estate businesses were adequately represented in the sample. Stratified random sampling is an unbiased sampling method of grouping heterogeneous populations into homogenous subsets and then selecting within the individual subset to ensure representativeness. According to Kothari (2004), in stratified random sampling subjects are selected in such a way that the existing sub-groups in the population are more or less represented in the sample.

3.4.2 Sample Size

A sample is defined as a small proportion of an entire population, a selection from the population (Lohr, 2010). The sample size constituted 216 business owners whose sample size was arrived at using the Bridget and Lewin (2005) formula. This formula assumed a normal distribution on the assumption that the real estate businesses were normally distributed in relation to the parameters under study. Using the

formula and a precision level of 5%, the desired sample size is determined to be as below.

Where n = sample size, N = population size, e = the error of sampling or precision/error limit at a 95% level of confidence, $p = 0.5$ and 5% level of precision is required.

This sample size was considered adequate since it was greater than 1% sample size of the target population (Gravette & Forzano, 2012).

3.5 Data Types and Sources

The study collected primary data using a self-administered questionnaire as the main instrument for collecting primary data from each respondent. Cooper and Schindler (2012) noted that questionnaires work best with standardized questions that one can be confident to interpret the same way by all respondents. They further contended that questionnaires are mostly used for descriptive or explanatory research. For the purpose of this research, the questionnaire was based on closed-ended questions aimed at generating brief and specific answers from the participants. The questionnaire was prepared in the form of a five-point Likert scale and organized in line with the research objectives. On the other hand, secondary data was collected during the literature review and corroborate with the findings from the field that emanated from the primary data.

3.6 Measurement of Variables

The variables in the study were measured using various indicators that had been designed based on the theoretical and empirical review of the literature. The variables in the study were tax compliance, lock-in effect, capitalization effect and taxpayers' engagement. Tax compliance was measured using an increase in the number of tax returns made, the number of compliance certificates obtained, and the amount of revenue collected measures. Lilian (2015) measured tax compliance using the measures of tax systems and public budgetary deficits. Data was collected using 5-point Likert questions and analyzed using regression and correlation analysis. Lock-in-effect was measured using sales of property, supply of property and transaction cost measures. Fend (2019), measured lock-in-effect using the measures of time of sales and time of transfer of property. Data was collected using 5-point Likert scale questions and analyzed using regression and correlation analysis. The capitalization effect was measured using the category of capitalization, rate of capitalization, and frequency of capitalization measures. Eichfelder & Lau (2015) measured the capitalization effect using the measures of market demand and market supply. Data was collected using 5-point Likert scale questions and analyzed using regression and correlation analysis. Taxpayers' engagement was measured using seminars conducted, number of taxpayers reached and channel of communication measures. Pattiasina, et al, (2020) measured taxpayers' engagement using the measures of tax knowledge and tax sanctions. Data was

collected using 5-point Likert questions and analyzed using regression and correlation analysis.

The study adopted the ordinal technique of measuring the degree to which the dependent variable is affected by the independent variable. Pearson Correlation analysis (r) was used to determine and measure the strength and direction between the dependent variable and each of the independent variables. The coefficient of Determination (r^2) was used to measure the proportion of variance in the dependent variable that can be explained by the independent variable. ANOVA, T- and F- tests were used to test the significance of the model in measuring the relationship between capital gains tax (CGT) and tax compliance at 95% confidence level and 5% significance level. Zar (1984) suggested that a confidence level of between 90% and 99% was sufficient to make a conclusion on the model's significance while tested at the P value.

3.6.1 Pilot Study

According to Payne (2016), a pilot study is a mini version of a full-scaled study executed as is planned for the intended study but on a smaller scale. Pilot studies help pre-test a particular research instrument such as a questionnaire or an interview guide in order to test various indicators, methodological, and reveal any deficiencies in the tool. A pilot test was carried on 22 real estate businesses representing 10% of the sampled population, within Kajiado township of Ngong, who were not to take part in the main study twice to pre-test questions in the questionnaire (Mugenda & Mugenda, 2003). The respondents were encouraged to make comments and suggestions in questions that were not clear. The questionnaire was then adjusted based on the comments of the respondents and given to them for the second time. The scores of the first and the second time were recorded and correlated to test for reliability of the questionnaire.

3.6.2 Validity of the Instruments

Validity according to Komp and Tromp (2009) is a measure of how well a test measures what it is supposed to measure. Content validity was achieved when questionnaires were given to experts in the field of study for comments on the suitability and representativeness of the questions. Their comments and observations were incorporated into the study instrument to ensure that the content was valid. Construct validity indicates the extent to which a measurement method accurately represents a construct that can be measured directly and produces an observation, distinct from that which is produced by a measure of another construct (Carmines and Zellar, 1979). The study measured the validity of the constructs using factor analysis and correlation tests to ascertain whether all the constructs produced distinct observations independent of each other. Should this not be the case during the pilot study, the study instrument was adjusted to ensure that each construct was distinct from each other. Criterion validity according to Liu (2010) is the measure of

the extent to which the instrument's scores correlate with an external criterion which is usually another measurement from a different instrument either at concurrent validity or predictive validity. The study measured criterion validity by comparing the correlation coefficient of relevant and similar previous studies between the two instrument measures. A correlation of $>.60$ indicates the existence of criterion validity.

3.6.3 Reliability of the Instrument

The questionnaires were tested for reliability during the pilot study. A test re-test technique was used which involved administering the same instrument twice to a different group after a certain time interval had elapsed since the previous test. The scores of the first and the second time tests were recorded and correlated to test for the reliability of the instrument. In this study, Cronbach's Alpha Coefficient was used to test the reliability of the measure used in the instrument. A test with reliability of values greater or equal to 0.7 was an accepted indicator of internal consistency (Mohsen and Reg, 2011).

3.6.4 Diagnostic Testing

According to Wheeler & Teifelsdorf (2005), diagnostic tests are usually carried out to empirically determine the quantitative effect of study design shortcomings of estimates of diagnostic accuracy. The study conducted diagnostic tests before the data was analyzed to validate the accuracy and reliability of the findings. Using the Shapiro-Wilk Test, when at an alpha level of 0.05 and the p-value of less than 0.05, then the null hypothesis is rejected and there is evidence that the data tested are not normally distributed. However when the p-value is greater than 0.05, then the null hypothesis is not rejected meaning that the data will have come from a normally distributed population.

3.6.5 Normality Testing

A normality test is used to determine whether a data set is normally distributed. Visual representation of the distribution of test results determines whether it conforms to the bell-shaped normal curve (Amata, 2017). The normality test was done using the normal probability plot, histogram, skewness and kurtosis.

3.6.6 Multicollinearity Testing

According to Alin (2010), when two or more independent variables are linearly dependent on each other, then one of them should be used in data analysis instead of the two or more as this increases the standard errors, making the results biased. Using a Variance Inflation Factor (VIF) of values to measure whether the independent variables (IVs) suffer a multicollinearity problem, a VIF value ≥ 10 shows there is multicollinearity while any VIF value ≤ 10 with a tolerance factor of ≥ 0.2 is an ideal and acceptable measure of multicollinearity. Zainodin and Yap (2011) note that it is important to test for multicollinearity among independent variables since the presence of multicollinearity leads to multiple errors in the analysis of data. The study assumed that there was a true linear relationship between tax compliance,

lock-in-effect, capitalization effect and taxpayers' engagement. The study also assumed that errors were normally distributed, that there was equal variance around the regression line during the analysis of the variables and that the relationship was independent of one another to diagnostically test the relationship between the variables.

3.7 Data Collection Procedure

Prior to the commencement of data collection, the researcher will obtain the necessary documents including an introduction letter from the University and permission from the National Commission for Science, Technology, and Innovation (NACOSTI). Upon getting clearance, the questionnaires will be administered by the researcher with the help of research assistants directly to the respondents at their workstations. For respondents who would prefer an interview instead of filling out the questionnaire, the researcher/assistants will read and fill in the responses on their behalf.

3.8 Data Analysis Techniques and Presentation

Data analysis is the whole process, which starts immediately after data collection and ends at the point of interpretation and processing (Cresswell, 2015). Therefore, before processing the responses, the completed questionnaires were edited for completeness and consistency. Both quantitative and inferential statistics were used to analyze the data. Quantitative statistics generated such as percentages and mean were presented in tables. Linear regression was used to show a linear relationship between the independent variables and the dependent variable.

3.8.1 Analytical Model

The analytical models used in the study are Multiple Regression Models as presented:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

$$Y = \beta_0 + \beta_1 X_1 X_3 + \epsilon$$

$$Y = \beta_0 + \beta_1 X_1 X_3 + \beta_2 X_2 X_3 + \epsilon$$

Where: Y - Tax Compliance

β_0 - β_4 - Regression coefficient

X1 - Lock-in-effect on tax compliance

X2 - Capitalization effect on tax compliance

X3 - Taxpayers' engagement moderating on tax compliance

ϵ - Error term, it considers all the possible factors that would possibly influence the dependent variable though not captured in the model.

3.9 Ethical Considerations

The researcher assured respondents that all the information provided was treated with the utmost confidentiality and that their identity was always protected. The researcher also adhered to all ethical issues of honesty, cultural sensitivity, informed consent, and voluntary participation. Moreover, respect for intellectual property was ensured by honoring patents, and copyrights, and acknowledging other contributions from various parties and scholars (Saunders,

2007). Permission was obtained from Moi University and NACOSTI to conduct data collection. The researcher was bound to adhere to all ethical issues of honesty, privacy, cultural sensitivity, informed consent, and voluntary participation. The ethics of the study were ensured by protecting the rights of the respondents that is anonymity and confidentiality. This was done by informing them in advance of the importance of the study and that participation was on a willing basis. Respondents were at liberty to pull out from the study any time they felt not comfortable proceeding with the survey. Personal particulars like name and address were not disclosed.

4. Data Analysis, Presentation and Interpretation

4.1 Introduction

This chapter displayed the findings of the study from the primary data collected through the use of closed-ended questionnaires. The analyzed covered areas were: the questionnaire response rate, reliability statistics and the basic information of the respondents; including the study objectives were: to investigate the effect of lock-in-effect on tax compliance among real estate businesses in Nairobi, Kenya, to evaluate the effect of capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya and to determine the effect of taxpayers' engagement on tax compliance both as an independent and moderating variable among real estate businesses in Nairobi, Kenya. Descriptive and inferential statistics were additionally used in data analysis, presentation and interpretation of the data.

4.2 Questionnaires Response Rate

The total target response rate was 216 questionnaires. 187 questionnaires were finally appropriately filled and returned attaining an 87% return rate as shown in Table 4.1. This was a good representation and suitable for data analysis.

Table 4. 1: Response Rate

4.3 Reliability Statistics

In this study, Cronbach's Alpha Coefficient was used to test the reliability of the measure used in the instrument. Mohsen and Reg (2011) stated that a test with reliability of values greater or equal to 0.7 was an accepted indicator of internal consistency. As displayed in Table 4.2, lock-in-effect had the highest reliability score of ($\alpha=0.791$), followed by tax compliance and capitalization effect with ($\alpha=0.776$) and ($\alpha=0.731$) respectively. Taxpayers' engagement had a reliability score of ($\alpha=0.692$).

Table 4. 2: Reliability Statistics

4.4 Basic Information

The study captured the respondents' general information which comprised of their gender, age, highest level of education attained, if the property/properties part of them was registered business with the government, if their business accounted for capital gains tax from the properties sold, what was their annual sales turnover for land and building property

in the year 2020 and last but not least, how many employees they had if any.

4.4.1 Gender

The respondents' gender as indicated in Table 4.3, showed that the majority of the respondents 42% were female while males represented 58% of the respondents. This displayed a good representation between the male and female genders.

Table 4. 3: Gender

4.4.2 Age

The respondents' ages as presented in Table 4.4 indicated that the majority of the respondents each 27% were between ages 29-39 years and 50-59 years. This was followed by ages 40-49 at 26% of the respondents. 14% and 6% of the respondents were between 18-28 years and above 60 years and above respectively.

Table 4. 4: Age

4.4.3 Highest Level of Education

Regarding information on the respondent's highest level of education attained as shown in Table 4.5, the study results displayed that the majority of the respondents 61% had a tertiary level, while 30% of the respondents had a secondary level. 5% of the respondents had a primary level. Only 4% of the respondents responded to have no level of education. These interpretations helped the respondents to simply understand the study in perspective and answered with ease.

Table 4. 5: Level of Education

4.4.4 Registration of Business with Government

In relation to whether the property/properties part of them was registered business with the government as presented in Table 4.6, the verdicts displayed that the majority of the respondents 87% agreed that their businesses were registered with the government while only 13% mentioned no. These responses gave a good depiction in making the study conclusions.

Table 4. 6: Business Registration

4.4.5 Business Account for Capital Gains Tax

Moreover, the study sought from the respondents whether their businesses accounted for capital gains tax from the properties sold and the results in Table 4.7 showed that the majority of the respondents 83% mentioned yes while 17% of the respondents said no.

Table 4. 7: Respondent's Role in the Business

4.4.6 Annual Turnover

Additionally, the study asked for the respondents' annual sales turnover for land and building property in the year 2020 and as represented in Table 4.8, the study outcomes revealed that the majority of the respondents at 52% realized annual sales of between 1,000,000-10,000,000 while 22% of the respondents had annual sales of between 10,000,000 - 20,000,000 in the year 2020. 11%, 8% and 7% of the respondents said they had annual sales of between 20,000,000-30,000,000, 30,000,000-40,000,000 and

50,000,000 and above respectively. These results were well spread to aid in making the study's deductions.

Table 4. 8: Annual Turnover

4.4.7 Number of Employees

Lastly, the study asked the respondents how many employees they had if any and the outcomes in Table 4.9 exhibited that the majority of the respondents 89% said they had between 1-10 employees while only 11% of the respondents said they had between 11-20 employees.

Table 4. 9: Number of Employees

4.5 Tests for Statistical Assumptions

Several tests for linear regression assumptions were further carried out in this study which included tests for normality research data using Shapiro-Wilk (SW). Additionally, tests for multicollinearity using a correlation matrix and Variance Inflation Factors (VIFs) were done.

4.5.1 Normality Test

The study used the Shapiro-Wilk test (SW-test) to establish whether the data was normally distributed since this was one of the assumptions of linear regression analysis. The frequently used tests for normality are the Kolmogorov-Smirnov test and the Shapiro-Wilk test, whereby, if the p-value of the Shapiro-Wilk test is greater than 0.05, then the data is normal. If the p-value is less than 0.05, then it significantly violates the normal distribution assumption. The results of the Kolmogorov-Smirnov and Shapiro-Wilk tests are presented in Table 4.10.

Table 4. 10: Tests of Normality

4.5.2 Multicollinearity Test

Using a Variance Inflation Factor (VIF) of values to measure whether the independent variables (IVs) suffer a multicollinearity problem, a VIF value ≥ 10 shows that there is multicollinearity while any VIF value ≤ 10 with a tolerance factor of ≥ 0.2 is an ideal and acceptable measure of multicollinearity. The study results in Table 4.11 indicated that there was no multicollinearity problem among the variables.

Table 4. 11: Test of Multicollinearity

4.6 Lock-in-Effect

The first objective of the study was to investigate the effect of lock-in on tax compliance among real estate businesses in Nairobi. The respondents' opinions were indicated using a 5-point Likert scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree and (5) = Strongly Agree and verdicts were shown in table 4.12.

The study results showed that the majority of the respondents with a mean score of 4.29 agreed that whenever possible, they may inflate the cost of property conveyance transactions so as to account for lesser than realized income while the mean score of 4.05 of the respondents agreed that the cost of transacting land and/or building property during the sale was high and that affected among the tax they had to pay.

Again, the mean scores of 3.93 for each of the respondents agreed that when the taxes to be paid were higher than their expectations they kept the property from the market until the price improved or taxes were reviewed downwards and they were only able to sell their property when the prices were good or at least they can recover the cost of their investment. Furthermore, the mean scores of 3.90, 3.81 and 3.72 of the respondents agreed that they can always take advantage of the spike in prices even if momentarily to sell property and make a good deal out of it, capital gains tax as imposed by the government did affect the income they realized from the sale of their property and as a business they had to compete with individuals who develop property for sell as a side business and were not bound by tax obligations respectively. Finally, the mean scores of 3.66, 3.58 and 3.34 of the respondents agreed that the oversupply of land and housing property in the market took away the portion they earned from the investment, there were businesses that bought land, developed, and sold for the purposes of generating income and whenever prices were low that their profit margin was substantially affected, they postponed the selling of the property to a later suitable time respectively.

Generally, the mean score of 3.82 of the respondents concluded that there was an influence of the lock-in effect on tax compliance among real estate businesses in Nairobi.

Table 4. 12: Lock-in-Effect

4.7 Capitalization Effect

On the second objective, the respondents were asked to evaluate the effect of capitalization effect on tax compliance among real estate businesses in Nairobi. The opinion results were measured using a 5-point Likert-scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree and (5) = Strongly Agree and the study conclusions were as shown in table 4.13.

The study findings portrayed that the majority of the respondents with a mean of 4.39 agreed that businesses in real estate development should be given more capital allowances in order to improve on capitalization which favors revenue growth while the means of 4.23 each of the respondents agreed that capital investment improved the income gained from the sale of land and housing property which positively impacts tax revenue collection and also when market-based rates were used to set the property prices for taxation purposes, this might not always be factual as it took time to gain from that property beyond valuation. Again, the mean scores of 4.15, 4.05 and 3.93 of the respondents agreed that capitalization did not necessarily lead to increased tax compliance since many companies may shift income to other tax bases, there were a number of other costs that were not captured during capitalization and hence giving the unrealistic value of the property subject to capital gains and there was more than one category of capitalization that affected their business and there was a need to properly understand them. Moreover, with mean

scores of 3.80 each of the respondents agreed that their businesses had benefitted from some of the capital investment allowances and these improved the gains made from the properties sold and also there were no standard and acceptable capitalization rates in the market to guide the computation of the gains made from the sale of their properties. Lastly, the mean scores of 3.36 and 3.07 of the respondents agreed that using any of the capitalization methods may not yield the same potential value of the property leading to under or over-valuing of the property and in cases where there was over-capitalization their businesses were forced to pay unrealistic capital gains tax which hurt their net income.

Generally, the mean score of 3.90 of the respondents established that there was an influence of capitalization effect on tax compliance among real estate businesses in Nairobi.

Table 4. 13: Capitalization Effect

4.8 Taxpayers Engagement

The third objective of the study was to determine the effect of taxpayers' engagement on tax compliance among real estate businesses in Nairobi, Kenya. The views were measured using a 5-point Likert-scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree and (5) = Strongly Agree and the outcomes were presented in table 4.14.

The study results revealed that the majority of the respondents with a mean of 4.36 agreed that they were aware that any income gained from the sale of land and building property was liable to capital gains tax as provided for by the law in Kenya whereas the means of 4.28 and 4.24 of the respondents agreed that they had attended other learning events for the purposes of informing their businesses about capital gains tax apart from seminars and they were aware that they must first deduct all costs related to buying, improving, developing, conveying, and transacting any property and the remainder was taxable respectively.

Likewise, respondents with means of 4.14, 3.96, 3.95 and 3.94 of the respondents agreed that the information gained from any other taxpayer engagement events organized was sufficient for their businesses to effectively compute and file for capital gains tax due, their businesses sometimes did interact with information on capital gains tax using other communication channels including social media, virtual meetings, flyers, and brochures, among others, and also they were aware that all gains made from the sale of land and building property was subject to 1.5% capital gains tax computed on gains made only and there were many tax bases that touch on land and buildings property that often confused their businesses about which base best fits for taxation purposes respectively. Finally, the mean scores of 3.71, 3.48 and 3.44 of the respondents agreed that at one-time point during the normal operations of their businesses, they had sought further clarifications from Kenya Revenue Authority due to computation, filing and payment of my capital gains

tax, whenever presented with the opportunity their businesses may undervalue their land and building property so as to avoid paying more taxes and they had attended a seminar organized by the tax authorities on capital gains tax and its relevance to their businesses.

Generally, the mean score of 3.95 of the respondents concluded that there was an influence of taxpayers' engagement on tax compliance among real estate businesses in Nairobi.

Table 4. 14: Taxpayers Engagement

4.9 Tax Compliance

The dependent variable for this study was tax compliance among real estate businesses in Nairobi, Kenya. The observations were measured using a 5-point Likert-scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree and (5) = Strongly Agree and the study outcomes were presented in table 4.15.

The study outcomes revealed that the majority of the respondents with a mean score of 4.16 agreed that their businesses declared and filed all the returns as per the requirements of capital gains tax laws and regulations while a mean score of 4.14 of the respondents agreed that there were likely to avoid accounting for CGT if they knew there were no repercussions to them personally as the owner of the business. Equally, respondents with means of 4.08 and 4.05 of the respondents agreed that they would only file tax returns and pay the rightful amount of taxes due if this was not considered a burden that might hurt their business profits and they had to severely amend their tax returns due to errors and omission made on their part while declaring and filing their returns respectively. Moreover, the mean score of 3.99 of the respondents agreed that they had to seek redress on their tax compliance issue from the revenue authority, tribunal and or the courts of law while the mean score of 3.91 each of the respondents agreed that their businesses acquired within the last one all the necessary tax compliance certificates from the tax authority and also their businesses only filed and complied with all tax requirements since they considered non-compliance economic consequences to be more punitive. Finally, the mean scores of 3.65 and 3.30 of the respondents agreed that their businesses were penalized for late returns and complete failure to account for the CGT due within the last year and their businesses had never defaulted on the payment of their capital gains tax due as per the requirement of taxation rule and regulations.

Generally, the mean score of 3.91 of the respondents concluded that there was an influence on tax compliance among real estate businesses in Nairobi.

Table 4. 15: Tax Compliance

4.10 Inferential Statistics

Correlation analysis which employed the Pearson Correlation coefficient to show the strength of relationships between the independent variables, moderating variable and

the dependent variable was done. If two or more variables had a strong relationship with each other, it meant there was a high correlation else it showed a weak correlation whereby the variables were hardly related.

4.10.1 Correlation Analysis

Pearson correlation coefficient (r) was used to assess the strength of the association between the study variables and the findings shown in Table 4.16. The study revealed that the lock-in effect was negatively and significantly linked with tax compliance as shown $r=0.258$ and $p=0.000<0.05$). Equally, the results revealed that capitalization was negatively and significantly linked with tax compliance as shown $r=0.307$ and $p=0.000<0.05$). Lastly, the results presented that taxpayer's engagement was positively and insignificantly connected to tax compliance as shown $r=0.085$ and $p=0.250>0.05$. However, on the taxpayers' engagement as a moderating variable on lock-in-effect and capitalization effect on tax compliance, the results revealed that taxpayer's engagement was both negatively and significantly associated with tax compliance displaying $r=-0.153$ and $p=0.036<0.05$ and $r=-0.194$ and $p=0.008<0.05$ respectively.

Table 4. 16: Correlation Analysis

4.10.2 Regression Analyses

The general objective of the study was to evaluate the effect of capital gains tax and taxpayer's engagement on tax compliance among real estate businesses in Nairobi, Kenya. To attain this, the study focused on three (3) main objectives which were lock-in-effect, capitalization and taxpayers' engagement, and the moderating variable as the taxpayers' engagement while also formulating the hypotheses. Also, the study carried out four (4) analytical regression models to draw these conclusions.

4.10.2.1 Lock-in-Effect and Capitalization Model Summary

The first regression analytical model was between lock-in effect and capitalization on tax compliance. The results in Table 4.17 revealed that lock-in effect and capitalization had a positive relationship with tax compliance up to 33% or ($R=0.330$). In addition, the results revealed that lock-in-effect and capitalization caused a variation of 10.9% or ($R^2=0.109$ and adjusted $R^2=0.100$) on tax compliance. This implied that the remaining 67% of the change was caused by other factors not included in the model.

Table 4. 17: Lock-in-Effect and Capitalization on Tax Compliance

4.10.2.2 Lock-in-Effect and Capitalization Analysis of Variance

The ANOVA test was done to determine whether the model works in explaining the link between the lock-in effect and capitalization. The study elucidations from Table 4.18 displayed an F statistics value of 11.279 with a significance level of $P=0.000<0.05$, hence, establishing the model is

statistically significant. The implication was that the lock-in effect and capitalization contributed significantly to changes in tax compliance.

Table 4. 18: Lock-in-Effect and Capitalization ANOVA Test

4.10.2.3 Lock-in-Effect and Capitalization Regression Analysis Model

The regression analysis model displayed the connection between lock-in-effect and capitalization effect as shown in table 4.19.

Table 4. 19: Lock-in-Effect and Capitalization Regression Analysis Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

From Table 4.19 the regression model is:

$$Y = 5.442 - 0.140X_1 - 0.238X_2$$

Where: Y- Tax Compliance

β_1 - β_2 - Regression coefficient of independent variables

X_1 = Lock-in-effect on tax compliance

X_2 = Capitalization effect on tax compliance ε = error term.

β_1 and β_2 are coefficients of the various determinants of performance, and ε is an error term.

The regression equation showed that a constant change of 5.442, a unit change in lock-in-effect causes a decrease of 0.140 in tax compliance while a unit change in capitalization causes a decrease of 0.238 in tax compliance.

4.10.2.4 Lock-in-Effect, Capitalization, and Taxpayers Engagement Model Summary

The second regression analytical model was between lock-in-effect, capitalization and taxpayers' engagement in tax compliance. The findings in Table 4.20 revealed that lock-in-effect, capitalization and taxpayers' engagement had a positive relationship with tax compliance up to 35.4% or ($R=0.354$). In addition, the results revealed that lock-in-effect, capitalization and taxpayers' engagement caused a variation of 12.5% or ($R^2=0.125$ and adjusted $R^2=0.111$) in tax compliance. This implied that the remaining 65% of the change was caused by other factors not included in the model.

Table 4. 20: Lock-in-Effect, Capitalization and Taxpayers Engagement on Tax Compliance

4.10.2.5 Lock-in-Effect, Capitalization and Taxpayers Engagement Analysis of Variance

Table 4.21 presented the ANOVA test showing an F statistics value of 8.741 with a significance level of $P=0.000<0.05$, hence, establishing the model is statistically significant. The implication was that each independent variable contributed significantly to changes in the dependent variable.

Table 4. 21: Lock-in-Effect, Capitalization and Taxpayers Engagement ANOVA Test

4.10.2.6 Lock-in-Effect, Capitalization and Taxpayers Engagement Regression Analysis Model

The regression analysis model exhibited between lock-in-effect, capitalization effect and taxpayers' engagement as shown in Table 4.22.

Table 4.22: Lock-in-Effect, Capitalization and Taxpayers Engagement Regression Analysis Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

From Table 4.22 the regression model is:

$$Y = 4.760 - 0.156X_1 - 0.242X_2 - 0.128X_3$$

Where: Y- Tax Compliance

β_1 - β_3 - Regression coefficient of independent variables

X_1 = Lock-in-effect on tax compliance

X_2 = Capitalization effect on tax compliance

X_3 = Taxpayers engagement on tax compliance ε = error term.

β_1 , β_2 and β_3 are coefficients of the various determinants of performance, and ε is the error term.

The regression equation showed that a constant change of 4.760, a unit change in lock-in-effect causes a decrease of 0.156 in tax compliance while also a unit change in capitalization causes a decrease of 0.242 in tax compliance. A unit change in taxpayers' engagement causes an increase of 0.128 in tax compliance.

The first hypothesis H01 stated that the lock-in effect has no significant effect on tax compliance among real estate businesses in Nairobi, Kenya. However, the lock-in effect had a negative effect on tax compliance among real estate businesses in Nairobi, Kenya. The results in Table 4.22 displayed that the p-value was equal to 0.05, $\rho=0.049$ which implied that the relationship was statistically significant therefore the null hypothesis was rejected. The second hypothesis H02 stated that the capitalization effect has no significant effect on tax compliance among real estate businesses in Nairobi, Kenya. However, capitalization had a negative effect on tax compliance among real estate businesses in Nairobi, Kenya. The results in Table 4.22 revealed that the p-value was less than 0.05, $\rho=0.003$ which implied that the relationship was statistically significant therefore the null hypothesis was rejected.

The third hypothesis H03 stated that taxpayers' engagement has no significant effect on tax compliance among real estate businesses in Nairobi, Kenya. However, taxpayers' engagement had a positive effect on tax compliance among real estate businesses in Nairobi, Kenya. Hence, the results in Table 4.22 revealed that the p-value was more than 0.05, $\rho=0.068$ which implied that the relationship was statistically insignificant therefore the null hypothesis was accepted.

4.10.2.7 Taxpayers Engagement on Lock-in-Effect Model Summary

The third regression analytical model was the effect of taxpayers' engagement as a moderating variable on the lock-in effect and on tax compliance among real estate businesses in Nairobi, Kenya. The findings in Table 4.23 revealed that

taxpayers' engagement on lock-in effects had a positive relationship with tax compliance up to 36% or ($R=0.360$). In addition, the results revealed that taxpayers' engagement as the moderator on lock-in-effect caused a variation of 12.9% or ($R^2=0.129$ and adjusted $R^2=0.115$) on tax compliance. This implied that the remaining 64% of the change was caused by other factors not included in the model.

Table 4. 23: Taxpayer's Engagement on Lock-in-Effect Model Summary

4.10.2.8 Taxpayers Engagement on Lock-in-Effect Analysis of Variance

Table 4.24 presented the ANOVA test showing an F statistics value of 9.054 with a significance level of $P=0.000<0.05$, hence, establishing the model is statistically significant. The implication was that taxpayer's engagement as a moderating variable on lock-in-effect contributed significantly to changes in the dependent variable.

Table 4. 24: Taxpayers Engagement on Lock-in-Effect Analysis of Variance

4.10.2.9 Taxpayers Engagement on Lock-in-Effect Regression Analytical Model

The regression analysis model outcomes are shown in Table 4.25.

Table 4. 25: Taxpayers' Engagement on Lock-in-Effect Regression Model

$$Y = \beta_0 + \beta_1 X_1 X_3 + \varepsilon$$

From Table 4.25 the regression model is:

$$Y = 4.803 + 0.289X_1 X_3 + \varepsilon$$

Where: Y- Tax Compliance

β_1 - Regression coefficient of independent variables X_1 = Lock-in-effect on tax compliance

X_3 = Taxpayers engagement moderating on tax compliance ε = error term.

β_1 is a coefficient of the various determinants of performance, and ε is the error term. The regression equation showed that a constant change of 4.803 and a unit change in Lock-in-effect*taxpayers' engagement as a moderating variable causes an increase of 0.289 in tax compliance.

The fourth hypothesis H04a stated that taxpayers' engagement has no significant moderating effect on the relationship between lock-in effect and tax compliance among real estate businesses in Nairobi, Kenya. However, taxpayers' engagement had a positive effect on tax compliance among real estate businesses in Nairobi, Kenya. Hence, the results in Table 4.25 revealed that the p-value was less than 0.05, $\rho=0.042$ which implied that the relationship was statistically significant therefore the null hypothesis was rejected.

4.10.2.10 Taxpayer's Engagement on Capitalization Model Summary

The fourth regression analytical model was the effect of taxpayers' engagement on capitalization effect as a moderating variable on tax compliance among real estate

businesses in Nairobi, Kenya. The findings in Table 4.26 showed that taxpayers' engagement in capitalization had a positive relationship with tax compliance up to 37.2% or ($R=0.372$). In addition, the results revealed that taxpayers' engagement as the moderator on lock-in-effect caused a variation of 13.9% or ($R^2=0.139$ and adjusted $R^2=0.120$) on tax compliance. This implied that the remaining 69.2% of the change was caused by other factors not included in the model.

Table 4. 26: Taxpayers Engagement on Capitalization Effect Model Summary Engagement, Capitalization*Taxpayer Engagement

4.10.2.11 Taxpayers' Engagement in Capitalization Regression Analytical Model

The regression analysis model results are shown in Table 4.27

Table 4.27: Taxpayers Engagement on Capitalization Regression Analytical Model

$$Y = \beta_0 + \beta_1 X_1 X_3 + \beta_2 X_2 X_3 + \varepsilon$$

From Table 4.27 the regression model is:

$$Y = 4.826 + 0.510 X_1 X_3 - 0.204 X_2 X_3 + \varepsilon$$

Where: Y- Tax Compliance

β_1 - β_2 - Regression coefficient of independent variables

X_1 = Lock-in-effect on tax compliance

X_2 = Capitalization effect on tax compliance

X_3 = Taxpayers engagement moderating on tax compliance

ε = error term.

β_1 and β_2 are coefficients of the various determinants of performance, and ε is the error term.

The regression equation showed that a constant change of 4.826 and a unit change in lock-in-effect*taxpayers' engagement as a moderating variable causes an increase of 0.510 in tax compliance. A unit change in capitalization*taxpayers' engagement as a moderating variable causes a decrease of 0.204 in tax compliance.

The fifth hypothesis H04b stated that taxpayers' engagement has no significant moderating effect on the relationship between the capitalization effect and tax compliance among real estate businesses in Nairobi, Kenya. However, taxpayers' engagement had a negative effect on tax compliance among real estate businesses in Nairobi, Kenya. Hence, the results in Table 4.27 revealed that the p-value was more than 0.05, $p=0.163$ which implied that the relationship was statistically insignificant therefore the null hypothesis was accepted.

Table 4.28: Moderating Effect of Taxpayers Engagement on the Relationship between CGT and Tax Compliance

**Significant at the 0.01 level.

*Significant at the 0.05 level.

4.11 Discussion of Findings

This segment displayed the discussion of the results of various tests carried out on the study. The outcomes of each of the hypotheses in this study were discussed.

4.11.1 Lock-in-Effect and Tax Compliance

The first objective of the study was to investigate the effect of lock-in on tax compliance among real estate businesses in Nairobi. The inferences revealed that the relationship between lock-in-effect and tax compliance was statistically significant at a p-value of 0.053 which was equal to 0.05 the probability significance level.

Conferring to these results was Ricardo & Rosa (2007) who stated that when the lock-in effect is viewed from the point of tax performance, it denies the revenue authority the opportunity to realize revenue within financial year projections. Therefore, the lock-in effect may result in poor payment of capital gains tax (CGT) and thus affect tax compliance. Additionally, in his study, Sahn (2008) found out that the lock-in effect possibly distorts the liquidation and investment decision.

4.11.2 Capitalization Effect and Tax Compliance

The second objective of the study was to evaluate the effect of capitalization effect on tax compliance among real estate businesses in Nairobi. The interpretations exhibited that the relationship between capitalization and tax compliance was statistically significant at a p-value of 0.003 which was less than 0.05 the probability significance level.

In agreement with these study results were Devereux et al (2015) who established that since tax compliance was dependent on the performance of individual tax bases and also when prices were high, investors were not likely to invest and hence denied the revenue authority the chance to meet its targeted revenue thresholds. While the prices were low as a result of oversupply, investors would lose investment, hence reducing the overall tax performance whereby underperformance was attributed to CGT because when CGT was computed, the adjusted costs would be so high that the CGT payable might be minimal in relation to the size of investment and the actual gains.

This would generally affect the performance of revenue gained from capital gains tax.

4.11.3 Taxpayer Engagement and Tax Compliance

The third objective of the study was to determine the effect of taxpayers' engagement on tax compliance among real estate businesses in Nairobi, Kenya. The assumptions revealed that the relationship between taxpayers' engagement and tax compliance was statistically insignificant at a p-value of 0.068 which was more than the 0.05 probability significance level.

Kassa (2020) conducted a study on factors influencing taxpayers' engagement in tax evasion and the findings of the study suggested that tax fairness, tax knowledge and moral obligation significantly influence taxpayers to engage in tax evasion. That awareness of tax laws did not necessarily lead to full compliance as those who were knowledgeable may identify loopholes to evade paying taxes unless guided by moral obligations not to do so.

4.11.4 Taxpayer Engagement as a Moderator and Tax Compliance

The fourth objective of the study was to investigate the effects of taxpayers' engagement as a moderating variable on the lock-in effect and capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya.

4.11.4.1 Taxpayers Engagement on Lock-in-Effect and Tax Compliance

The first investigation was on the effect of taxpayers' engagement as a moderating variable on lock-in effects and on tax compliance among real estate businesses in Nairobi, Kenya. The assumptions revealed that the relationship between taxpayers' engagement as a moderator on lock-in-effect and tax compliance was statistically significant at a p-value of 0.042 which was less than the 0.05 probability significance level. According to Pattiasina *et al.* (2020), on determinants of taxpayer compliance level in East Indonesia, the study revealed that tax knowledge and tax sanctions had a significant positive effect on taxpayers' awareness. Also, the study continued to reveal that taxpayers' awareness had a moderating positive effect on taxpayer compliance. The reviewed literature pointed to the assumptions that the lock-in effect had some impact on tax compliance because when stocks were not sold, the government could not levy taxes and hence this impacted the ability to meet revenue targets.

4.11.4.2 Taxpayers Engagement on Capitalization Effect and Tax Compliance

The second investigation was to determine the effect of taxpayers' engagement on capitalization effect as a moderating variable on tax compliance among real estate businesses in Nairobi, Kenya. The assumptions revealed that the relationship between taxpayers' engagement as a moderator on capitalization effect and tax compliance was statistically insignificant at a p-value of 0.163 which was more than the 0.05 probability significance level. Kassa (2020) conducted a study on factors influencing taxpayers engaged in tax evasion, in Wodia Ethiopia and the outcomes of the study suggested that tax fairness, tax knowledge, and moral obligation significantly influenced taxpayers to engage in tax evasion. This awareness of tax laws did not necessarily lead to full compliance as those who were knowledgeable may identify loopholes to evade paying taxes unless guided by moral obligations not to do so. Additionally, a study by Aondo (2019) on the effectiveness of taxpayers' education on compliance for SMEs in Kenya the results revealed that taxpayers' education had an effect on compliance across all tax bases including PAYE and others. It was noted that some of the knowledgeable taxpayers would use the knowledge they had of the tax system loopholes to their advantage which would then have a negative impact on tax compliance

5. Summary, Conclusion And Recommendations

5.1 Introduction

Finally, this chapter presented the summary of the findings, conclusions, recommendations and areas of further study. The judgments and recommendations drawn were focused on addressing the purpose of the study which was to evaluate the effect of capital gains tax on tax compliance, among real estate businesses in Nairobi, Kenya.

5.2 Summary of Findings

The study objectives sought to investigate the effect of lock-in-effect on tax compliance among real estate businesses in Nairobi, to evaluate the effect of capitalization effect on tax compliance among real estate businesses in Nairobi and to determine the effect of taxpayers' engagement on tax compliance among real estate businesses in Nairobi, Kenya. Additionally, the study sought to determine the effect of taxpayers' engagement moderating on lock-in-effect and capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya.

5.2.1 Effect of Lock-in-Effect on Tax Compliance

This first objective was to investigate the effect of lock-in on tax compliance among real estate businesses in Nairobi, Kenya. Correlation analysis revealed that the lock-in effect on tax compliance among real estate businesses in Nairobi, Kenya was negatively and significantly connected. Equally, the regression analysis showed there was a negative significant linear relationship between lock-in-effect on tax compliance among real estate businesses in Nairobi with evidence of $p=0.053$, $\rho<0.05$.

5.2.2 Effect of Capitalization on Tax Compliance

The second objective was to evaluate the effect of capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya. Correlation analysis showed that the capitalization effect on tax compliance among real estate businesses in Nairobi was negatively and significantly connected. Equally, the regression analysis showed there was a negative significant linear relationship between online tax filing knowledge on tax compliance among real estate businesses in Nairobi with evidence of $p=0.003$, $\rho<0.05$.

5.2.3 Effect of Taxpayers' Engagement Moderating on Tax Compliance

The third objective was to determine the effect of taxpayers' engagement moderating on tax compliance among real estate businesses in Nairobi, Kenya. Correlation analysis showed that taxpayers' engagement in tax compliance among real estate businesses in Nairobi, Kenya was positively and insignificantly linked. Still, the regression analysis showed there was a positive insignificant linear relationship between taxpayers' engagement and moderating tax compliance among real estate businesses in Nairobi, Kenya with evidence of $p=0.068$, $\rho>0.05$.

5.2.4 Effect of Taxpayers' Engagement Moderating on Tax Compliance

The fourth objective was to investigate the effects of taxpayers' engagement as a moderating variable on lock-in-effect and capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya.

Firstly, correlation analysis showed that taxpayers' engagement in the lock-in effect on tax compliance was negatively and significantly linked while taxpayers' engagement in the capitalization effect on tax compliance was similarly negatively but significantly linked among real estate businesses in Nairobi, Kenya. Still, the regression analysis showed there was a positive significant linear relationship between taxpayers' engagement moderating lock-in effect on tax compliance among real estate businesses in Nairobi, Kenya with evidence of $p=0.042$, $\rho<0.05$.

On the second regression analysis, the study revealed that there was a positive insignificant linear relationship between taxpayers' engagement and moderating capitalization effect on tax compliance among real estate businesses in Nairobi, Kenya with evidence of $p=0.163$, $\rho>0.05$.

5.3 Conclusions

Based on the inferences that were drawn from the study findings, the study rejected the first null hypothesis and concluded that lock-in-effect had a negative and significant effect on tax compliance among real estate businesses in Nairobi, Kenya and hence, lock-in-effect was found to play a significant role in the tax compliance among real estate businesses in Nairobi, Kenya.

Also, the study rejected the second null hypothesis and concluded that the capitalization effect had a negative and significant effect on tax compliance among real estate businesses in Nairobi, Kenya. As a result, capitalization gain was found to play a significant role in tax compliance among real estate businesses in Nairobi, Kenya.

However, the study accepted the third null hypothesis and concluded that taxpayers' engagement had a positive and insignificant effect on tax compliance among real estate businesses in Nairobi, Kenya. Henceforth, taxpayers' engagement was found not to play a significant role in tax compliance among real estate businesses in Nairobi, Kenya.

Furthermore, the study rejected the fourth hypothesis and concluded that taxpayers' engagement had a significant positive moderating effect on the relationship between the lock-in effect and tax compliance among real estate businesses in Nairobi, Kenya.

Therefore, taxpayers' engagement as a moderator on lock-in effects was found to play a significant role in tax compliance among real estate businesses in Nairobi, Kenya.

Lastly, the study accepted the fifth hypothesis and concluded that taxpayers' engagement had a negative insignificant moderating effect on the relationship between the capitalization effect and tax compliance among real estate

businesses in Nairobi, Kenya. Therefore, taxpayers' engagement as a moderator on the capitalization effect was found not to play a significant role in tax compliance among real estate businesses in Nairobi, Kenya.

5.4 Recommendations

Based on the study conclusions summarized, the study found that there was a statistically significant relationship between lock-in-effect and capitalization effect on tax compliance while the taxpayers' engagement as a moderating on tax complaint was not statistically significant. From the first objective, the study recommends that KRA should create more awareness by educating the taxpayers on lock-in effects to enable the revenue authority to realize more revenue from CGT.

On the second objective capitalization effect and tax compliance, the study recommends that KRA should strike a balance or better yet involve stakeholders when determining CGT rates to prevent investors from shunning various investment opportunities thus impeding compliance and revenue bound to be realized from the area of CGT.

On the third objective, taxpayers' engagement and tax compliance, the study recommends that KRA should direct more finances towards stakeholders' engagement to boost compliance in the area of CGT.

On the fourth objective, taxpayers' engagement on Lock in effect and tax Compliance and taxpayers' engagement on Capitalization effect and tax compliance; the study recommends that KRA should be wary in the manner in which they deliver information on compliance so as not to highlight the negatives which might propel taxpayer to evade taxes.

In summary, there is a scarcity of literature on the lock-in effect of capital gains tax on tax compliance in the country. The reviewed literature points to the assumptions that lock-in and capitalization effects have some impact on tax compliance because when units are not sold, the government cannot levy taxes and therefore this impacts the ability to meet revenue targets. It would therefore be critical to determine the same locally to improve on the policies and regulations towards greater tax compliance in the area of CGT.

5.5 Suggestions for Further Research

This study only focused on three variables namely; lock-in-effect, capitalization effects and taxpayers' engagement moderating the relationship between CGT and tax compliance in Nairobi, Kenya. Further studies should however be conducted in light of other factors or variables that affect the performance of CGT. A larger demographic should further be considered for comparative purposes

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Independent Variable

Dependent Variable

Moderating Variable

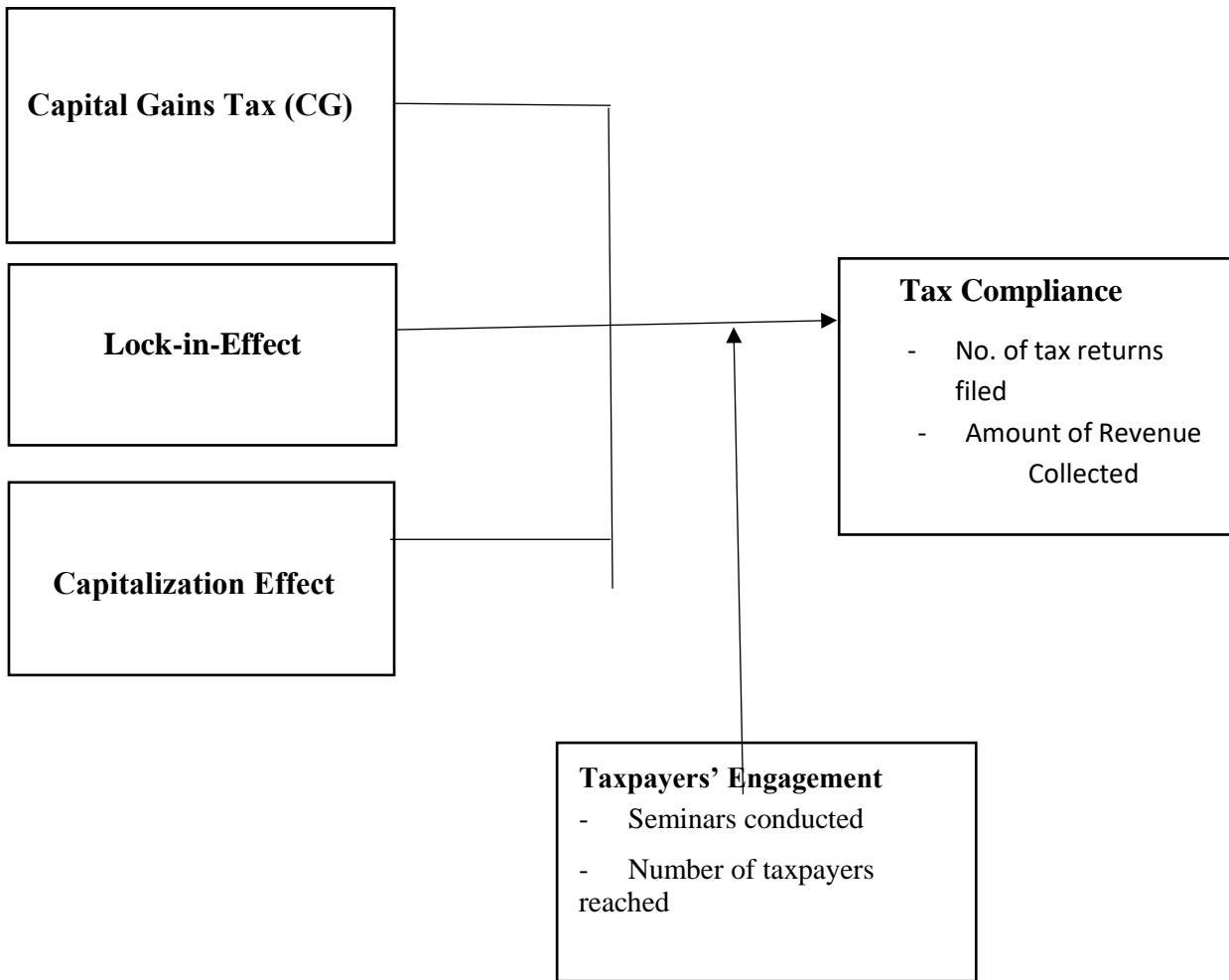


Figure 1: Conceptual Framework

Return Rate	Frequency	Percent
Returned Questionnaires	187	87
Unreturned Questionnaires	29	13
Total	216	100

Table 4. 1: Response Rate

Table 4. 2: Reliability Statistics

Variable	Number of items	Cronbach's Alpha Score	Conclusion
Lock-in-Effect	10	.791	Reliable
Capitalization Effect	10	.731	Reliable
Taxpayers Engagement	10	.692	Reliable
Tax Compliance	9	.776	Reliable

Table 4. 3: Gender

Gender	Frequency	Percent
Female	79	42
Male	108	58
Total	187	100

Table 4. 4: Age

Age	Frequency	Percent
18-28 years	27	14
29-39 years	50	27
40-49 years	49	26
50-59 years	50	27
60 years and above	11	6
Total	187	100

Table 4. 5: Level of Education

Level of Education	Frequency	Percent
Primary Level	9	5
Secondary Level	56	30
Tertiary Level	115	61
None	7	4
Total	187	100

Table 4. 6: Business Registration

Registration	Frequency	Percent
Yes	163	87
No	24	13
Total	187	100

Table 4. 7: Respondents' Role in the Business

Account	Frequency	Percent
Yes	156	83
No	31	17
Total	187	100

Table 4. 8: Annual Turnover

Turnover	Frequency	Percent
1,000,000 - 10,000,000	97	52
10,000,000 - 20,000,000	42	22
20,000,000 - 30,000,000	20	11
30,000,000 - 40,000,000	15	8
50,000,000 and above	13	7
Total	187	100

Table 4. 9: Number of Employees

Employees	Frequency	Percent
1 - 10	167	89
11 - 20	20	11
Total	187	100

Table 4. 10: Tests of Normality

	Shapiro-Wilk	
	Statistic	Sig
Lock-in-Effect	1.668	.097
Capitalization Effect	1.672	.152
Taxpayers Engagement	1.723	.283
Tax Compliance	.1.837	.068

Table 4. 11: Test of Multicollinearity

Model	Collinearity Statistics	
	Tolerance	V
1(Constant)		
Lock-in-Effect	.746	1.340
Capitalization Effect	.754	1.326
Taxpayers Engagement	.980	1.020

a. Dependent Variable: Tax Compliance

Table 4. 17: Lock-in-Effect and Capitalization on Tax Compliance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.330 ^a	.109	.100	.426

a. Predictors: (Constant), Lock-in-Effect, Capitalization

Table 4. 18: Lock-in-Effect and Capitalization ANOVA Test

Model	Sum of Squares	df	Mean square	F	Sig.
1. Regression	4.086	3	2.043	11.27	.000 ^b
Residual	33.327	184	.181		9

Total 37.413 187

- a. Dependent Variable: Tax Compliance
 b. Predictors: (Constant), Lock-in-Effect, Capitalization

Table 4. 19: Lock-in-Effect and Capitalization Regression Analysis Model

Model	Unstandardized Coefficients	Standardized Coefficients		t	Sig.
		B	Error		
1.(Constant)	5.442	.333		16.324	.000
Lock-in-Effect	-.107	.061	.140	-1.750	.082
Capitalization Effect	-.288	.097	-.238	-2.969	.003

- a. Dependent Variable: Tax Compliance

Table 4. 20: Lock-in-Effect, Capitalization and Taxpayers Engagement on Tax Compliance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.354 ^a	.125	.111	.423

- a. Predictors: (Constant), Lock-in-Effect, Capitalization, Taxpayers Engagement

Table 4. 21: Lock-in-Effect, Capitalization and Taxpayers Engagement ANOVA Test

Model	Sum of Squares	df	Mean Square	F	Sig.
1. Regression	4.689	3	1.563	8.741	.000 ^b
Residual	32.724	184	.179		
Total	37.413	187			

Table 4.22: Lock-in-Effect, Capitalization and Taxpayers Engagement Regression Analysis Model

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	std Error	Beta	Standardized Error		
1.(Constant)	4.760	.498			9.561	.000
Lock-in-Effect	-.119	.061	-.156		-1.944	.049
Capitalization Effect	-.293	.096	-.242		-3.040	
Taxpayers Engagement	.189	.103	.128		1.837	.068

Table 4.23: Taxpayers' Engagement on Lock-in-Effect Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	.360 ^a	.129	.115	.422

a. Predictors: (Constant), Lock-in-effect*Taxpayer Engagement, Capitalization Effect, Lock-in-Effect

Table 4. 24: Taxpayers Engagement on Lock-in-Effect Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1. Regression	4.835	3	1.612	9.054	.000 ^b
Residual	32.578	183	0.178		
Total	37.413	186			

Table 4. 25: Taxpayers Engagement on Lock-in-Effect Regression Model

Model	Unstandardized Coefficients	Standardized Coefficients		t	Sig.
		std			
	B	Error	Beta		
1.(Constant)	4.803	0.454		10.578	.000
Lock-in-effect*Taxpayer Engagement	0.295	0.144	0.289	2.052	.042

Table 4. 26: Taxpayers Engagement on Capitalization Effect Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
4	.372 ^a	.139	.120	.421

a. Predictors : (Constant), Lock-in-Effect, Capitalization Effect, Lock-in-effect*Taxpayer Engagement, Capitalization*Taxpayer Engagement

Table 4.27: Taxpayers Engagement on Capitalization Regression Analytical Model

Model	Unstandardized Coefficients	Standardized Coefficients		t	Sig.
		std			
	B	Error	Beta		
1.(Constant)	4.826	0.453		10.649	.000

Lock-in-effect*Taxpayer Engagement	0.521	0.216	0.510	2.415	0.017
Capitalization*Taxpayer Engagement	-0.258	0.184	-0.204	-1.401	0.163

Table 4.28: Moderating Effect of Taxpayers Engagement on the Relationship between CGT and Tax Compliance

FV	MODEL 1 Coef. (S. Err)	MODEL 2 Coef. (S. Err)	MODEL 3 Coef. (S. Err)	MODEL 4 Coef. (S. Err)
X ₁	-0.107 (0.82)	-0.119 (0.049)**		
X ₂	-0.288 (0.03)**	-2.93 (0.03)**		
X ₃		0.189 (0.068)		
X ₁ X ₃			0.295 (0.042)**	0.521 (0.017)**
X ₂ X ₃				-0.258 (0.163)
R	0.330	0.354	0.360	0.372
R-sq	0.109	0.125	0.129	0.139
Adjusted R-sq	0.100	0.111	0.115	0.120

**Significant at the 0.01 level.

*Significant at the 0.05 level.