

**The Effect of Company Characteristics on Tax Non-Compliance Rates
in Kenya and The Moderating Effect of Liquidity on This
Relationship**

Moindi Winnie Kemunto

Registration Number: 048241

Master of Commerce

Year 2026

**The Effect of Company Characteristics on Tax Non-Compliance Rates
in Kenya and The Moderating Effect of Liquidity on This Relationship**

Moindi Winnie Kemunto

Registration Number: 048241

**A Dissertation Submitted to Strathmore Business School in Partial
Fulfilment of the Requirements for the Award of the Degree of Master
of Commerce (Forensic Accounting) at Strathmore University.**

Strathmore Business School

Strathmore University

Nairobi, Kenya

August 2026

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

© No part of this dissertation may be reproduced without the permission of the author and Strathmore University

Name of Candidate: Winnie Kemunto Moindi

Approval

The dissertation of Winnie Kemunto Moindi was approved by the following:

Dr. David Mathuva

Associate Dean, Academics & Student Affairs,
Strathmore University Business School.

Dr. Ceaser Mwangi

Executive Dean
Strathmore University Business School.

Prof. Bernard Shibwabo

Director, Office of Graduate Studies

ABSTRACT

This research aimed to investigate the effect of company characteristics on tax non-compliance among large corporates in Kenya, and whether liquidity levels moderate this relationship. Profitability was selected as a control variable. This study leverages concepts from the economic deterrence theory and the agency theory. It is quantitative, grounded on the positivism philosophy and using an explanatory research design. It utilised secondary data obtained from KRA, which dispensed the data while strictly adhering to the provisions of the Data Protection Act. The population comprised companies from the Large Taxpayers Office with uncontested tax audit adjustments for corporation tax. From the retrieved data across the study period (2016 to 2022), a sample size of 251 firms for the study was obtained using purposive sampling to select firms that had at least two instances of additional assessments. Using EViews for panel regression analysis, the study found a weak negative relationship between size and non-compliance rate, with an increase in size leading to decline in non-compliance. It also found a weak positive relationship between age and non-compliance, with non-compliance surging as firms grow older. Findings revealed that the construction sector lead in compliance, while financial and insurance activities, along with manufacturing, despite their low compliance, outperform the wholesale and retail sector. Further, findings established that while liquidity moderates how age and size of companies interact with non-compliance, the effect is not statistically significant. However, the findings revealed that the moderation effect of liquidity is statistically significant for the financial sector, with liquidity not only reducing the effect of this industry's activities on non-compliance, but also shifting it from positive to negative. The study suggests that the tax authority should concentrate more on older companies as well as devise mechanisms to encourage, motivate, and ensure improved tax compliance in the financial industry.

Keywords: Tax Compliance, Firm Characteristics, Noncompliance

TABLE OF CONTENTS

DECLARATION	ii
ABSTRACT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
ABBREVIATIONS AND ACRONYMS	ix
DEFINITION OF TERMS.....	xi
DEDICATION	xiii
ACKNOWLEDGEMENTS	xiv
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Company Characteristics	3
1.1.2 Liquidity Levels	11
1.1.3 Tax Compliance in Kenya.....	12
1.1.4 Large Corporate Taxpayers.....	15
1.2 Statement of the Problem	16
1.3 Research Objectives	17
1.3.1 General Objective.....	17
1.3.2 Specific Objectives.....	17
1.4 Research Questions	18
1.5 Scope of the Study.....	18
1.6 Significance of the Study	19
1.6.1 Government.....	19
1.6.2 Management of KRA	19
1.6.3 Scholars.....	19
1.7 Chapter Summary	20
CHAPTER TWO: LITERATURE REVIEW	21
2.1 Introduction	21
2.2 Theoretical Review.....	21
2.2.1 The Agency Theory.....	22

2.2.2	The Economic Deterrence Theory	24
2.3	Empirical Review	26
2.3.1	Firm Size and Tax Compliance.....	26
2.3.2	Firm Age and Tax Compliance	39
2.3.3	Firm's Industry and Tax Compliance	45
2.3.4	Moderating Effect of Liquidity Level in the Relationship between Firm Characteristics and Tax Compliance.....	53
2.4	Conceptual Framework	80
2.5	Operationalization of the Variables.....	81
2.6	Chapter Summary.....	84
CHAPTER THREE: RESEARCH METHODOLOGY		85
3.1	Introduction	85
3.2	Research Philosophy	85
3.3	Research Design.....	86
3.4	Population and Sampling.....	86
3.5	Data Collection Methods.....	87
3.5.1	Data Analysis	88
3.5.2	Diagnostic Tests	89
3.6	Research Quality	92
3.6.1	Reliability of Research Instrument.....	93
3.6.2	Validity of Research Instrument	93
3.7	Ethical Issues in Research	93
3.8	Chapter Summary.....	94
CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS		95
4.1	Introduction	95
4.2	Descriptive Statistics	95
4.3	Diagnostic Tests	97
4.3.1	Hausman Test.....	97
4.3.2	Chow Test for Fixed Effects	98
4.3.3	Heteroskedasticity	99
4.3.4	Stationarity Test	100

4.3.5	Normality Test	101
4.3.6	Pooled OLS Choice.....	102
4.3.7	Serial Autocorrelation	104
4.4	Inferential Statistics	105
4.4.1	Correlation Analysis.....	105
4.5	Regression Analysis	107
4.6	Chapter Summary	115
CHAPTER FIVE: DISCUSSION, CONCLUSION, AND RECOMMENDATIONS.		116
5.1	Introduction	116
5.2	Summary of Key Findings	116
5.3	Discussion of Findings	118
5.3.1	Firm Size and Tax Compliance.....	118
5.3.2	Firm Age and Tax Compliance	119
5.3.3	Industry and Tax Compliance	121
5.3.4	Moderating Effect of Liquidity Levels	124
5.4	Conclusion.....	127
5.5	Recommendations	127
5.6	Implications for Practice, Policy, Theory, and Academia.....	128
5.6.1	For Practice	128
5.6.2	For Policy	129
5.6.3	For Theory.....	129
5.6.4	For Academia and Research.....	130
5.7	Limitations of the Study	130
REFERENCES.....		131
APPENDICES		146
Appendix 1: Letter of Introduction		155
Appendix 2: Data collection sheet		156
Appendix 3: Confirmation of Compliance with Data Protection Act.....		157
Appendix 4: Data Request Form & Non-disclosure Agreement		159
Appendix 5: List of Data Variables		163

LIST OF TABLES

<i>Table 1: Summary of the Literature and Research Gaps</i>	57
<i>Table 2: Operationalisation of Variables</i>	82
<i>Table 3: Descriptive Statistics Summary</i>	97
<i>Table 4: Hausman Test Summary</i>	98
<i>Table 5: Chow Test Summary</i>	99
<i>Table 6: Heteroscedasticity Test Summary (Panel Cross-Section)</i>	99
<i>Table 7: Heteroscedasticity Test Summary (Panel Period)</i>	100
<i>Table 8: Stationarity Test Summary</i>	101
<i>Table 9: Pooled OLS Summary</i>	104
<i>Table 10: Pearson Correlation Analysis Summary</i>	106
<i>Table 11: Regression Analysis Summary</i>	108
<i>Table 12: Moderation Analysis</i>	112

LIST OF FIGURES

<i>Figure 1: KRA Revenue Performance</i>	<i>13</i>
<i>Figure 3: Conceptual Framework.....</i>	<i>81</i>
<i>Figure 3: Normality Test Visual Representation.....</i>	<i>102</i>

ABBREVIATIONS AND ACRONYMS

ACFE	“Association of Certified Fraud Examiners”
C&BC	“Customs & Border Control”
CEM	“Common effect model”
CETR	“Cash Effective Tax Rate”
CPI	“Consumer Price Index”
DTD	“Domestic Taxes Department”
DER	“Debt-to-Equity Ratio”
EBITDA	“Earnings before Interest, Tax, Depreciation and Amortization”
ETR	“Effective Tax Rate”
EACCMA	“East African Community Customs Management Act, 2004”
FE	“Fixed-effect”
RE	“Random-effect”
GDP	“Gross Domestic Product”
HNWI	“High Net Worth Individuals”
IDX	“Indonesian Stock Exchange”
ISIC Activities"	“International Standard Industrial Classification of Economic
KeSIC	“The Kenya Standard Industrial Classification”
KPI	“Key Performance Indicator”
Ksh.	“Kenyan Shillings”
KRA	“Kenya Revenue Authority”
LTO	“Large Taxpayers Office”
MTO	“Medium Taxpayers Office”

NSE	“Nairobi Stock Exchange”
NACE	“Nomenclature of Economic Activities”
OECD	“Organization for Economic Cooperation and Development”
SEC	“United States Securities and Exchange Commission”
SME	“Small & Medium-Sized Enterprises”
STO	“Small Taxpayers Office”
SWOT	“Strengths, Weaknesses, Opportunities and Threats”
PPI	“Producer Price Index”
PSD	“Public Service Division”
ROA	“Return on Assets”
TAT	“Tax Appeals Tribunal”
TPA	“Tax Procedures Act, No 29 of 2015”
TBE	“Tax Base Expansion”
VAT	“Value Added Tax”

DEFINITION OF TERMS

Term	Definition
Active Taxpayers	Individuals and corporations that submit tax returns and make payments (“Kenya Revenue Authority, 2024”).
Additional Assessment	An upward tax adjustment or the total additional assessed liability (“Tax Procedures Act Chapter 469B Revised Edition, 2023”).
Company Characteristics	Inherent qualities that define what a firm is, such as its size, age, industry, management structure and other demographic attributes (Al-Dmour et al., 2018). They also cover a broad spectrum of factors, including cultural norms, ethical culture, corporate values, organisational structure, management incentives, management composition, internal controls in place and the type of auditor (Nguyen et al., 2020; Ali et al., 2022; Indriani & Juniarti, 2020).
Firm	Means a firm incorporated or registered under any law in force in Kenya (Deakin et al., 2021).
Industry	A section of the economy in which business entities share similar or related business activities, products or services (Ali et al., 2022).
Large Taxpayers	Individuals or entities who accrue a yearly income of 1.3 billion and above (Kenya Revenue Authority, 2023).
On-time filing rate	A measurement of the frequency with which returns are submitted by the deadline (Kenya Revenue Authority, 2024).

On-time payment rate	It gauges the extent to which taxes owed are settled within the allotted time frames (Kenya Revenue Authority, 2024).
Self- assessment	This means a tax assessment made by a taxpayer or his representative (“Tax Procedures Act Chapter 469B Revised Edition, 2023”).
Tax	The mandatory levies paid by individuals and business establishments to the government. It is a tax or penalty imposed under a tax law (“Tax Procedures Act Chapter 469B Revised Edition, 2023”).
Tax Laws	The “Income Tax Act of 1974, the Value Added Tax Act of 2013, the East African Community Customs Management Act (EACCMA) of 2004, the Excise Duty Act of 2015, the Tax Procedures Act of 2015, and the Tax Appeals Tribunal Act of 2013”. The Finance Acts and other subsidiary legislations (“Tax Procedures Act Chapter 469B Revised Edition, 2023”).
Tax Compliance	Taxpayers’ decision to comply with tax laws and regulations by paying taxes timely and accurately (Satria & Lunardi, 2023).
Tax noncompliance	Actions or inactions that violate tax legislation and regulations. This is primarily unintentional, especially among large taxpayers, who fail to comply due to oversights when interpreting and implementing tax laws and inadequate support for voluntary compliance. It presents a picture of a tax system's shortcomings (Satria & Lunardi, 2023)

DEDICATION

I dedicate this dissertation to God, who gave me the means and fortitude to complete the research and helped me overcome numerous obstacles.

ACKNOWLEDGEMENTS

I dedicate this dissertation to God, who gave me the means and fortitude to complete this research and helped me overcome numerous obstacles.

CHAPTER ONE: INTRODUCTION

This chapter provides a background of the study, giving a global, regional and local perspective to the topic under study. It describes all the significant research elements, expounding on the concept of taxation, tax compliance, and what constitutes large corporate taxpayers in Kenya. Thereafter, it spells out the research objectives, research questions, the problem statement, the scope, and the significance of the study.

1.1 Background of the Study

The national government is responsible for fostering an environment that supports the growth of the economy as a whole and for maintaining the overall wellbeing of society by implementing large-scale development projects that benefit everybody. While striving to meet the above objectives, the government must leverage the tax system to keep its fiscal deficits at a minimum and avoid excessive borrowing. Taxes are the mandatory levies paid by individuals and business establishments to the government. Usually, the government through a designated tax authority collects these levies. For instance, the Internal Revenue Service (KRA) is responsible for collecting taxes for the United States government and the Federal Inland Revenue Service (FIRS) is the authority responsible for collecting taxes in Nigeria.

Taxes are essential as they are sustainable sources of revenue for governments to fund public investments and social programmes, fostering economic growth and development (Saptono et al., 2024). Besides, programmes providing education, health, and infrastructure services are crucial to achieve the common goal of a functional, orderly, and prosperous society. Thus, taxes not only fund public goods and services but they are also a critical element in the social contract between citizens and the economy.

All governments need revenue to function effectively. However, sometimes there are challenges that limit the tax authority from attaining their tax targets. Skrok (2024) identifies the government's inability to carefully choose the level of tax rates and the tax base as one key challenge affecting taxation across many governments. Additionally, the incapability to design an effective tax compliance system that will encourage taxpayers to comply continues to affect tax collection for governments (Skrok, 2024; Saptono et al., 2024). Taxation differs across economies as demonstrated by variations in economic

growth and strength. For instance, taxation in developed, developing, and underdeveloped (third world) countries significantly varies (World Bank Group, 2024). For developing economies like Kenya, crises such as the Covid-19 pandemic have worsened situations by lowering revenues while simultaneously increasing government spending.

The need to improve tax collection is particularly severe in nations with a tax-to-GDP ratio of less than 15 percent (Skrok, 2024). This ratio is a vital tipping point to make a country viable and put it on a growth trajectory. However, 83 percent of low-income nations and 48 percent of lower middle-income economies fall below this threshold (Skrok, 2024). Kenya is a lower middle-income economy and has a tax-to-GDP ratio of less than the 15 percent level. A 2024 report by KPMG reveals that as of the financial year 2024/2025 Kenya had a tax-to-GDP ratio of 14.1 percent, with the country aiming to grow it to 20 percent as of the financial year 2026/2027 (KPMG, 2024). Certainly, the tax-to-GDP ratio for FY 2024/2025 reinforces the country's tax struggles and the need to improve tax collection to stay in the safe zone.

To fund economic growth, reduce poverty, achieve food security, and support climate action, nations need to improve revenue collection and make tax systems more efficient and equitable. However, Abdul and Wang'ombe (2018), highlight compliance as a significant issue that tax authorities and governments face. Widespread non-compliance has, thus, forced governments and tax authorities to establish alternative tax measures, which have only intensified the burden for those who are already compliant. Besides, non-compliance has increased government spending as it invests a lot of money, human resources, and time in an effort to detect, deter, and close all loopholes contributing to non-compliance (Acheampong et al., 2016).

OECD (2008) states that compliance obligations include registration for relevant tax obligations, filing tax returns as required by law, revealing all of one's taxable income, correctly claiming deductions on the tax return and timely payment of due taxes. In its most straightforward form, tax compliance is defined as the extent to which taxpayers abide by the tax code (Andreoni et al., 1998). However, like many other concepts, there is a continuum in the meaning of compliance, which can be defined in a variety of ways, from the narrow definitions associated with law enforcement to the more comprehensive

definitions related to taxpayers' personal decisions to comply with societal goals that are reflected in tax policy (Bayer & Cowell, 2016).

1.1.1 Company Characteristics

Company characteristics are inherent qualities that define what a firm is, such as its size, age, industry, management structure and other demographic attributes (Al-Dmour et al., 2018). They are believed to influence firms' tax compliance behaviour (Annur et al., 2014). These characteristics cover a broad spectrum of factors, including firm-specific cultural norms, ethical culture and corporate values, organisational structure, management incentives, management composition, internal controls in place and the type of auditor (Nguyen et al., 2020; Ali et al., 2022). They also encompass factors such as size & complexity, geographical location, industry-specific dynamics and other ownership structure attributes like board ownership, institutional ownership, public or private ownership, and sole proprietor or partnership (Indriani & Juniarti, 2020).

Company characteristics vary significantly based on their geographic, strategic, and operational scope with these differences determining whether a business has a local, regional, or global focus. In a global setting, a company's features include wide-ranging, frequently international operations under centralised direction from its home headquarters. (Banalieva & Santoro, 2009; Mayrhofer & Prange, 2015). At the regional level, companies tend to focus their activities on a particular but relatively large geographical area to align standardisation and customisation in order to take advantage of economies of scale and greater market expertise. (Banalieva & Santoro, 2009). On the other hand, a local analysis of company characteristics encompasses local business that are geographically restricted such that they serve a specific community, city, or country (Banalieva & Santoro, 2009). While businesses with a worldwide focus are characterised by large resource networks, standardisation, and economies of scale, a regional one is distinguished by its focus on utilising proximity to comparable markets (Banalieva & Santoro, 2009; Mayrhofer & Prange, 2015). Company characteristics, in the local context, manifest in the form of deep community integration and high customer service (Banalieva & Santoro, 2009). Understanding the global, regional, and local contexts of firms give some insights into their market behaviour, including that related to tax compliance.

Research in the global context on the relationship between company characteristics and tax compliance has yielded varying results, with studies establishing conflicting results on the relationship between firm attributes and tax compliance. For example, large multinational corporations have been increasingly employing tax aggressive strategies, such as profit shifting and transfer pricing techniques, to lower their tax obligations (Kraft, 2014; OECD, 2016). This can result in instances of unethical and aggressive earnings management that fail to portray a true and fair view of the financial position of the company such as the case of Enron, Andersen and Worldcom (Petra & Spieler, 2020).

This notwithstanding, in Greece, Chytis et al. (2019) researched a possible relationship between corporate tax avoidance and firm size. The study revealed that tax avoidance was less prevalent among Greek large-scale businesses, but businesses with a high return on capital employed exhibited more tax avoidance. The context of the study, which is a more developed nation, may lead to differing findings in a developing country.

Similarly, using full-population administrative tax data from thirteen nations, including countries in Africa, Latin America, and Eastern Europe, Bachas et al. (2023) observed a possible correlation between firm size and effective corporate tax compliance rates, attributing effective tax compliance rates to the largest corporations, with tax incentives playing a pivotal role in ensuring the higher tax compliance rates among large taxpayers. Understandably, Bachas et al.'s (2023) findings indicate that large taxpayers are motivated to pay their taxes when governments utilise tax incentives or amnesty programmes. Thus, this finding signals a potential positive correlation between firm size and tax compliance among large taxpayers.

In another study involving a panel dataset of multinational corporations based in the United Kingdom and the United States over the period 2011 to 2019, Ali et al. (2022) investigated the potential effects of the effective tax rate and firm-specific parameters on the capital structure of global firms operating in the energy sector. These parameters included the business size, growth prospects, tangibility, risk, profitability, non-debt shields, and liquidity. In their study, Ali et al. (2022) establish a negative relationship

between firm size and financial leverage choices of multinational enterprises. Typically, financial leverage entails making the right and most profitable financial decisions concerning the firm's capital structure, and it is proper to say these financial decisions include tax avoidance, compliance or noncompliance. In their study, Ali et al. (2022) observe a negligible negative correlation between the effective tax rate and business size and the leverage decisions (including financial leverage) made by large international companies.

Using secondary data from an extensive sample of over 405,000 businesses from 35 different European countries and 127 NACE three-digit industries, Pfaffermayr (2013) further observed a positive correlation between firm age and corporate taxation in the form of corporate tax rate because, for older businesses, the tax benefits of debt are more significant than for younger ones.

Arend (2014) argued that a company's business and reputational risk increase with age. As a result, older businesses will typically reduce risk and select courses of action that minimise risk, compared with their younger counterparts. Established (or older) companies pay more in terms of internal tax comparison fees than startup (or younger) enterprises. This is because, compared to their younger peers, they have a higher degree of tax complexity (Eichfelder & Kegels, 2014). Simple business structures in new enterprises typically translate to minimal turnover. As companies increase in size and revenue over time, owners tend to choose more intricate business structures—especially incorporation—to reduce risk and tax implications. This can increase tax and non-tax compliance costs (McGregor-Lowndes & Ryan, 2009). Similarly, Teguh and Kristanto (2020) found that younger firms tended to have more cases of fraudulent reporting in Indonesia. Through empirical research, this study seeks to determine the influence of specific features on tax noncompliance in large Kenyan enterprises.

Another critical factor determining a company's tax compliance is the industry in which it operates (Bayer & Cowell, 2016). Hansford and Hasseldine (2012) demonstrated that although value-added tax (VAT) compliance costs varied among industries in the UK, companies in the manufacturing, services and products sectors incurred the lowest compliance costs. Eichfelder and Schorn (2008) likewise discovered that the construction

sector in Germany had lower tax compliance costs (including the time burden) than the service sector. According to the study, the industries that spent the most on outsourcing their tax activities were transportation, postal, and warehousing, followed by mining and gas, electricity, and water supply. Bayer and Cowell (2016) found that tax authorities can counteract the informational advantage of corporations by implementing more intelligent audit policies that consider the correlation between a company's stated profits and industry data, implying that firms in the same industry tend to report similar financial data, which would then affect their tax culture. Du Toit (2008) found that fraud is higher in volatile industries (e.g. technology) where changes are frequent and significant and in industries with high levels of competition. Hence, certain economic factors affect specific industries, and different industries may have varying motivations to develop tax evasion strategies. The studies assume that industry influences tax compliance costs, but a contextual gap exists as these studies were conducted in developed countries.

However, it is not always the case that firm attributes have a relationship with tax compliance. In Indonesia, Fauziati and Kassim (2018) inquired about how risk management, size, age, and company industry affected tax compliance expenses. Using questionnaires, data from 92 respondents in the Department of Cooperatives and Micro, Small, and Medium Enterprises in Padang City was collected for the study (Fauziati & Kassim, 2018). The study concluded that tax compliance is unaffected by age, size, or industry. This was in contrast to other study findings, which showed a significant effect of the firm age and size on tax compliance. Further, the study was conducted in a developed country with more advanced tax policies, systems and structures than Kenya's.

In another study, Kartikaningdyah (2020) makes another controversial finding. Using a quantitative approach involving secondary data collected from manufacturing firms in the Indonesian Stock Exchange (2010 to 2017) sampled using a purposive sampling technique, Kartikaningdyah (2020) attempted to investigate the relationship between tax avoidance and firm size, ROA, and executive character. The study concluded that firm size has no bearing on tax compliance. However, equally using quantitative data involving secondary data obtained from construction firms listed on the Indonesian Stock Exchange (2017-2019) and selected using purposive sampling, Sopiya (2022) made a more controversial finding. Employing profitability as a moderating variable to investigate the

relationship between tax avoidance and leverage and firm size, Sopiya (2022) found that in Indonesia, the impact of corporate size on tax avoidance is negative and substantial.

In another study involving a quantitative approach and secondary data collected from 10 pharmaceuticals sub-sector firms in the Indonesian Stock Exchange (2016 to 2019) sampled using a purposive sampling technique, Indriani and Juniarti (2020) sought to examine the influence of firm size, firm age, sales growth and profitability on tax avoidance, determining that income tax avoidance is unaffected by firm age. Further, in a study involving a researcher-administered questionnaire survey method among small business taxpayers of the Department of Cooperatives and Micro, Small-Medium Enterprises in Padang City (Indonesia), Fauziati and Kasim (2017) found that firm age had no bearing on the price of tax compliance.

Researchers have further tried to examine firm-specific determinants of aggressive tax management among African firms (Kimea et al., 2023) and the correlation between effective tax rates and firm size in Ethiopia (Mascagni & Mengistu, 2019). Using a quantitative approach involving secondary data obtained from 99 firms for 10 years (2008 to 2018), Kimea et al. (2023) found that large firms in East Africa are less tax-aggressive compared with small ones, indicating that firm-specific determinants such as firm size to some degree influence tax compliance. Using panel data, Mascagni and Mengistu (2019) found that despite having proportionate tax rates, medium-sized businesses in Ethiopia have the lowest effective tax burden out of all business sizes, with large corporations having a lower effective tax burden than small businesses.

In Nigeria, Yahaya and Yusuf (2020) evaluated the influence of business age, size, profitability, and leverage on aggressive tax evasion of listed insurance companies. Between 2010 and 2018, information was gathered from the audited annual reports of twenty (20) randomly selected listed insurance companies. The study's results revealed that firm size has a positive and significant impact on aggressive tax avoidance, while firm age has a negative and significant impact. The firm size and age were measured using the natural log of total assets and the length of time the firm had been in legal existence. This differs from the measures adopted in the current study, which may bring out conflicting findings.

Salaudeen and Abdulwahab's (2022) study comprising 79 firms listed in Nigeria (2012-2016) found that managerial and non-executive director ownership structures significantly correlate to tax compliance. Salaudeen and Ejeh (2018) further observed that ownership concentration has a positive but insignificant effect on tax aggressiveness among nonfinancial firms in Nigeria, while managerial ownership structure has a significantly negative impact.

Mumo (2019) examined how ownership, age, and company size affected construction companies' compliance with VAT in Kenya. The study's demographic of interest consisted of 480 Nairobi County-based construction companies. Using stratified random sampling, the sample size was calculated for 2014 through 2018. The study discovered that among Kenyan construction enterprises, the following factors significantly and favourably influence VAT compliance: firm size (total assets), firm age (years in operation), and firm ownership (directors' share ownership composition). The study adopted total assets to measure firm size, which differs from the current study's proposed indicators.

Abdul and Wang'ombe (2018) investigated income tax compliance behaviour among large and medium-sized business taxpayers using survey data collected from 142 business taxpayers. The study established a correlation between firm size and tax compliance, asserting that as firm size increases, tax compliance also augments.

Examining firm characteristics will shed light on the interplay between these attributes and regulatory adherence, particularly tax non-compliance, in the modern corporate environment in Kenya. This study will concentrate on three essential ones, evaluating the relationship between these characteristics and tax compliance. While the focus of most past studies in the local context has been on individuals and medium and small enterprises, there isn't much microdata on the factors that influence larger firms' tax compliance. Due to the volume and diversity of transactions that must be jointly confirmed to ascertain the accurate tax liabilities across different tax heads, monitoring large corporations is more complex and time-consuming (Almunia and Lopez-Rodriguez, 2018). Taxation of large corporates presents unique challenges to tax authorities such as determining the appropriate degree of earnings management that portrays a company's true economic

performance for taxation purposes and determining appropriate transfer pricing methods to avoid excessive repatriation of profits. Divergent legal interpretations of tax regulations for complex processes is another key challenge unique to large companies due to the complexity of operations. Nevertheless, some large corporates are easier to monitor due to the substantial paper trail they create as well as easy access to third party data. Thus, key leading-edge industries such as heavy manufacturers and wholesalers usually display different responses to monitoring actions of tax authorities than downstream sectors such as transport, agriculture, arts, entertainment and recreation (Almunia and Lopez-Rodriguez, 2018). This research aims to fill this gap by focussing on upstream sectors which are usually large corporations.

1.1.1.1 Firm Size

Firm size generally describes the scope or extent of an organisation's activities, which can be determined by several indicators such as sales revenue, number of employees, market value of equity or total assets, total profits or net assets (Dang, 2018; Arend, 2014). Firm size, therefore, indicates a company's impact, competitiveness, and market presence.

Dang (2018) found that specific metrics are more pertinent than others when used in certain contexts. He found that it is better to use more than one metric to measure firm size to ensure the robustness of research. This is because using various company size metrics frequently causes the regression coefficients to fluctuate in sign and significance. Therefore, different metrics for business size are not equivalent. However, he found that “total sales” is one of the primary metrics used to measure the size of a firm and that the choice of a particular measure ultimately depends on the purpose of the study.

In tax compliance, a firm's total sales provide a better measure of firm size because of the intricate relationship between sales, liquidity and the ability to honour tax obligations, particularly corporation tax. Firm size, measured in gross sales, is, therefore, one of the characteristics expected to influence tax compliance. It has emerged as a critical empirical variable in many studies (Almunia & Lopez-Rodriguez, 2018). It is also a proxy for many other factors such as scale economies, market strength, negotiating leverage, resource slack, specialisation, experience, managerial talent, stronger internal controls and complex tax and organizational structures (Arend, 2014; Fauziati & Kassim, 2018) and

hence, the findings will provide a general perspective that represents many other factors and provides a foundation for future research. Besides, sales revenue is the metric used to classify firms into large, medium and small taxpayers in Kenya Revenue Authority (KRA, 2022), and hence, using this metric will ensure that the findings are relevant and can be applied in the context of tax compliance in Kenya. This metric is also used in large taxpayers' units in other countries such as Spain, which monitors firms with more than €6 million in revenue (Almunia & Lopez-Rodriguez, 2018) and Ghana, where large, medium and small taxpayers are categorised according to their annual turnover (Okpeyo, 2019).

1.1.1.2 Firm Age

Firm age is the duration in which a firm has been in operation, measured as the length of time the firm has been in existence (Loderer & Waelchli, 2010). According to Pratama (2017), firm age could be incorporation age or managerial age. In tax compliance, firm age is determined as the number of years the firm has existed since incorporation. This is a more constant and measurable metric compared with the managerial age, which would vary as and when the CEO changes.

Many previous studies have only looked at the age of individual CEO's rather than the age of the company. Research in tax compliance has dealt chiefly with individuals. As a result, research on the age of enterprises is still inadequate.

The age variable is a proxy that accounts for a wide range of other parameters, such as exposure & expertise, external scrutiny, reputational risk, legitimacy, access to credit, bargaining power, stronger internal controls, and diversity (Arend, 2014). The findings can therefore offer a general perspective that covers many underlying parameters. Additionally, it is easily obtainable with respect to tax compliance which is an extremely delicate topic.

1.1.1.3 Firm Industry

According to Delgado and Stern (2016), an industry is a group of firms related by knowledge, skills, inputs, demand and other linkages. The International Standard Industrial Classification of all economic/productive activities (ISIC), which the UN Statistical Commission recommends for all United Nations member states, provides an

assortment of activity categories that can be applied to collecting and reporting statistics pertaining to these kinds of activities.

The economic activities that Kenyan establishments engage in are categorised by the “Kenya Standard Industrial Classification” (KeSIC). KeSIC is a product of the modification of the International Standard Industrial Classification of All Economic Activities (ISIC Rev 4) with some amendments to suit the Kenyan context while guaranteeing that data on economic activity are comparable across borders (KeSIC, 2008). KeSIC classifies industries into 21 basic categories (A - U) including “Agriculture, Forestry and Fishing (A), Mining and quarrying (B), Manufacturing (C), Electricity, gas, steam and air conditioning supply (D), Water supply, sewerage, waste management and remediation activities (E), Construction (F), Wholesale and retail trade; repair of motor vehicles and motorcycles (G), Transportation and storage (H), Accommodation and food service activities (I), Information and communication (J), Financial and insurance activities (K), and Real estate activities (L) among others” (KeSIC, 2008). This is the same classification adopted by the Kenya Revenue Authority.

The current study will focus on the largest industries among large taxpayers between 2016 and 2022 (KRA, 2022). These are manufacturing, wholesale and retail trade, financial and insurance activities, and construction industries. (KRA, 2022). The four largest industries were selected to ensure a large data set is available for analysis. Further, due to the KRA’s inability to meet its revenue targets year in and year out, there was a need to assess which major economic sectors were under-complying to inform appropriate tax policy reforms.

1.1.2 Liquidity Levels

While company characteristics are intrinsic traits that define what a company is, financial performance metrics like liquidity levels are quantifiable results that indicate how well a company is doing at a certain period in time (Huseyin, 2023).

Liquidity is a financial analysis metric that measures a firm’s ability to meet its short-term debt obligations within a particular year (Hasanuddin, 2021). The capacity of a business to pay its short-term debt is positively related with its liquidity ratio, so that if the ratio is less than one, the firm has a negative working capital, which indicates that the company is facing liquidity problems (Dirman, 2020). According to Harris (2003), among traders,

liquidity refers to how quickly a transaction may be carried out at the lowest price, with higher liquidity being associated with faster execution at a reduced cost.

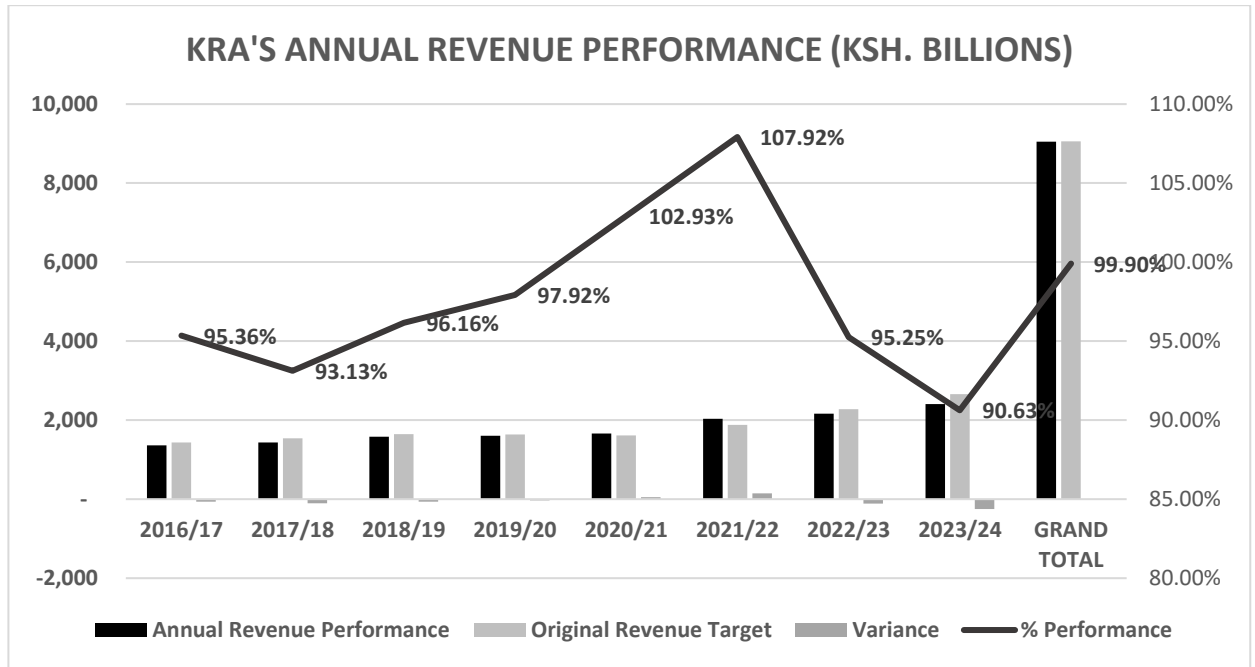
Liquidity is measured using various liquidity ratios, with the most common being the “Current Ratio (Current Assets / Current Liabilities), Quick ratio ((Cash + Accounts Receivables + Marketable Securities) / Current Liabilities) and Cash Ratio (Cash + Marketable Securities) / Current Liabilities” (Hasanuddin, 2021). Unlike the quick and cash ratios, the current ratio considers all current assets available (Haralayya, 2021). Since it covers a broader range of a firm’s entries, it can paint a better picture of a company’s financial health and, specifically, its ability to honour its tax obligations. The current ratio will, therefore, be used to measure liquidity in the current study.

Liquidity is essential in the current study because it may moderate the relationship between firm attributes and tax compliance since businesses utilise it to satisfy short-term known and unknown needs for net cash outlays (including tax arrears).

1.1.3 Tax Compliance in Kenya

The Kenya Revenue Authority (KRA) is the government’s primary revenue collection agency. During the 7th corporate plan, which covered the fiscal years 2017/2018 to 2019/2020, KRA collected Ksh. 4.849.3 trillion against a target of Ksh. 4.899.3 trillion, representing a performance of 99% and about 93% of the government’s revenue. The GDP Ratio was 15.8% (KRA, 2021). During the fiscal years 2021/22, 2022/23 and 2023/24, the organisation collected Ksh. 2.031 trillion, Ksh. 2.166 trillion and Ksh. 2.407 trillion, respectively (KRA, 2024).

Figure 1: KRA Revenue Performance



Source: KRA's 7th, 8th & 9th Corporate Plan Revenue and Annual Revenue Performance Reports for FY 2021/22, 2022/23 and 2023/24.

According to the organisation's implementation matrix in its 9th Corporate Plan, KRA's annual target for FY 2024/25 was Ksh. 3.116 trillion. To achieve this, it targeted to increase the number of active taxpayers from the 2020/21 baseline of 6.55 million to 9.87 million active taxpayers by June 2025 (KRA, 2024). It aimed to improve the on-time filing rate from the 2020/2021 baseline of 68 percent to 84 percent and achieve an on-time payment rate of 82 percent, which was a decrease from the 2020/2021 baseline of 88 percent.

Other initiatives to enhance compliance the tax authority adopted included taxation of the digital economy to collect Ksh. 5.5 billion by 2023/24, implementing a risk-based audit programme to reach an audit coverage rate of 100 percent, and implementing a risk-based compliance management programme to lead to a reduction in the tax gap by an additional 5 percent in FY 2023/24 (KRA, 2021). KRA also targeted tax efficiency, investing in a robust intelligence management system to achieve a conversion rate of 25 percent of cases under investigation and to detect, deter, and disrupt tax evasion to reach a target of 150 cases successfully investigated. With the system, KRA aimed at simplifying tax processes

to improve the tax simplification index by 6 points by 2023/24, achieve 100 percent adoption of tax policy changes to guarantee the certainty, stability and understandability of tax laws, and build an advanced data analytics capability to improve the data utilisation index from 71 percent to 77 percent. It further sought to enhance data literacy and culture from 40 percent to 100 percent and increase compliance among High-Net-Worth Individuals (HNWI) to increase revenue collection from 1.275 billion to Ksh. 1.697 billion in 2023/24. These are among some of the measures being taken to improve tax compliance.

KRA collects taxes as governed by the “Income Tax Act of 1974, the Value Added Tax (VAT) Act of 2013, the East African Community Customs Management Act (EACCMA) of 2004, the Excise Duty Act of 2015, the Tax Procedures Act of 2015 and the Tax Appeals Tribunal Act of 2013” (KRA, 2018). As read together with the above Acts, the Finance Acts and other subsidiary legislations also introduce additional amendments to the tax regulations. In its risk analysis, KRA singles out the preeminent risks: low tax morale, reduced government expenditure on development projects among others (KRA, 2024). This results in taxpayers misreporting their financial position, tax fraud, payment risk and filing risk (KRA, 2021). This indicates the need to actively monitor those taxpayers who are already active.

A key challenge to Kenya’s tax compliance rates identified as a threat in the organisation’s SWOT analysis is the perception that taxes are misused, which lowers tax morale. Additional obstacles to compliance in the post-COVID-19 era include finding a way to encourage economic expansion and recovery while sustaining taxation, both of which affect revenue mobilisation. Along with the expansion of the informal sector, the COVID-19 epidemic also brought about new business patterns that resulted in hard-to-tax industries such as digital transactions. The rising use of social media has allowed KRA to advertise its services and spread awareness through tax education, aiming to increase compliance.

To improve compliance, KRA has been employing strategies such as integration of its systems with external data sources, tax simplification through legislation reviews and system enhancements, increased taxpayer education, campaigning in the media to inform

citizens about the rationale of taxation, partnership with associations for the informal sector and industry associations, trade unions, tax practitioners and other community groups. The 9th Corporate Plan also aims to enhance staff productivity by enhancing integrity. This is done through staff vetting and investigation, analysing and preventing corruption risks, and raising integrity awareness among internal and external stakeholders.

1.1.4 Large Corporate Taxpayers

The majority of OECD member nations implemented special operations for large firms in the 1990s in order to better manage and regulate the primary sources of government revenue and to address the compliance requirements of the biggest stakeholders in the government (IMF, 2002). Countries such as the United States, the United Kingdom, Canada, Japan and New Zealand reorganized their tax administrations around taxpayer segments (individuals, small and medium taxpayers and large taxpayers) rather than around functions (such as payment processing, debt enforcement, audit and other taxpayer services) to improve relationship management, compliance and convenience by allowing the tax administration to offer a full array of targeted and enhanced services, tailored education and other tax administration functions to the companies under those segments (IMF, 2002).

Large taxpayer units typically have a smaller taxpayer to staff ratio and personnel with specialised training in areas such as complex business structures, treaty negotiation, transfer pricing, base erosion and profit shifting, and international tax law. In Spain, companies with yearly incomes exceeding €6 million are categorised as large taxpayers (Almunia & Lopez-Rodriguez, 2018). In Jamaica, the eligibility cut-off for companies in the LTU are those with reported sales over J\$500M or US\$5.7M (Tennant & Tracey, 2019). Businesses that generate at least ₦5 billion in revenue annually are considered large taxpayers in Nigeria (KPMG, 2025), while in Ghana, those that generate more than GHS 5M are classified as large taxpayers (Okpeyo et al., 2019).

In Kenya, the large taxpayers' unit was established in 1998 (IMF, 2002) and falls within the Domestic Taxes Department. Large taxpayers contribute about 60 percent of the total tax collected, and within KRA, these usually have annual gross sales of above Kshs 1.3

billion (KRA, 2022). According to Kim et al. (2022), corporate income tax payments account for a sizable amount of government tax revenue, hence the current study's choice of corporation tax payments.

There are 2,480 large taxpayers from various sectors of the country's economy (KRA, 2023). Due to the KRA's inability to meet its revenue targets year after year, it was necessary to understand the compliance behavior of large corporations, the biggest source of funding for the government and hence, the main reason for revenue shortfalls.

Notwithstanding that the IMF invited countries to build LTUs and several have done so in an effort to improve tax administration and compliance, there is limited literature and empirical data on the real contribution to performance and tax compliance procedures that the Large Taxpayers Offices create and on the tax compliance behaviour of large taxpayers (Almunia & Lopez-Rodriguez, 2018).

1.2 Statement of the Problem

Kenya's tax system faces numerous constraints that cause revenue collection to fall short of expectations. For instance, although Kenya has made significant investments in tax reform and modernisation of the tax system, its income yield is still below the desired 25 percent of GDP threshold set by the East African Community as a requirement for the EAC Monetary Union (Republic of Kenya, 2022). Ordinary revenue as a percentage of GDP has decreased over the last ten years from 18.2 percent in FY 2013-14 to 13.8 percent in FY 2020-21 (Republic of Kenya, 2022). This cycle draws attention to the fundamental problems facing the tax system. Low tax compliance among taxpayers has been identified as one of the critical concerns that has a substantial impact on tax collection. For example, according to data provided by the Kenya Revenue Authority (KRA), out of the 759,164 businesses registered in Kenya, only 66 percent submitted annual reports for the fiscal year 2021–2022. Of those that filed returns, only 17 percent of firms declared and paid corporate tax (Kenya Revenue Authority, 2024). Thus, understanding which industries are underperforming is vital to inform targeted policies that can encourage compliance and enable the tax authority to achieve their yearly targets and thus sufficiently support public services.

While many previous studies have attempted to examine the factors determining tax compliance (Abdul & Wang'ombe, 2018; Kimea et al., 2023; Ogunfunmilayo, 2020; Matarirano, 2019), they do not establish whether there is a relationship between certain firm characteristics and tax compliance. Besides, available studies have focused on different contexts (Bayer & Cowell, 2016; Yu, 2021; De La Cuesta et al., 2023) which means varying contextual factors such as economic or financial policies, taxation laws or regulations, tax incentives or amnesty programs could be in play. Other studies have focused on variable concepts, such as the correlation to tax avoidance (Yahaya & Yusuf, 2020; Salaudeen & Ejeh, 2018; Kartikaningdyah, 2020). Therefore, the current study aims to fill in conceptual and contextual gaps in the literature and controversies in findings by examining the correlation between firm characteristics and tax compliance, in an environment moderated by liquidity levels, among large taxpayers in Kenya.

1.3 Research Objectives

1.3.1 General Objective

The research investigates the relationship between firm characteristics and non-compliance with tax regulations among large corporate taxpayers in Kenya.

1.3.2 Specific Objectives

1. To analyse the effect of the size of the company on tax non-compliance among corporates in Kenya.
2. To analyse the effect of age of the company on tax non-compliance among corporates in Kenya.
3. To analyse the effect of the industry of the company and tax non-compliance among corporates in Kenya.
4. To analyse the moderating effect of liquidity levels on the relationship between firm characteristics and tax non-compliance among corporates taxpayers in Kenya.

1.4 Research Questions

The study will seek to answer the following questions:

1. What is the relationship between the size of the company and tax non-compliance among corporates taxpayers in Kenya?
2. What is the relationship between the age of the company and tax non-compliance among corporates taxpayers in Kenya?
3. What is the relationship between the industry of the company and tax non-compliance among corporates taxpayers in Kenya?
4. What is the moderating effect of liquidity levels on the relationship between firm characteristics and tax non-compliance among corporate taxpayers in Kenya?

1.5 Scope of the Study

The study examines the impact of three corporate attributes—size, age, and industry—on Kenya's tax non-compliance rates.

Numerous factors influence tax compliance. These can be analysed from the perspective of business dynamics, which includes corporate characteristics, as well as the tax system (simplicity, transparency, predictability/certainty, cost of compliance, ease, and perceived fairness/equity). Instead of concentrating on external causes, this study expores internal ones. It will help to understand the underlying issues driving non-compliance from the perspective of internal business dynamics and to assess which major economic sectors are underperforming.

The study therefore used accounting information from income statements and statements of financial position filed by large Kenyan corporations in their yearly corporate tax returns. Use of information from KRA's large taxpayer's office guarantees the reliability of the research findings since these corporations usually have the advantage of experience/expertise of employees handling their books as well as stronger internal controls.

The 2016 to 2022-time period was considered since the online filing of tax returns in the iTax system became mandatory in August 2015. The system made the return filing process more efficient, less time-consuming, and data entry controls were put in place to ensure data accuracy. Thus, the data used is verifiable and accessible. Corporate income

tax returns filed between 2016 and 2022 guaranteed the most recently available data, as there were no tax adjustments/additional assessments raised in the year 2023. The sample was retrieved from companies with an uncontested tax adjustment for corporation tax and focussed on firms in the big four industries which filed their tax returns and had uncontested additional assessments.

1.6 Significance of the Study

The findings of the study offer insights that various stakeholders, including the government, the management of KRA, and academicians can find useful.

1.6.1 Government

Through the tax policymakers, the government of Kenya would be keen to understand better the mindset behind corporate non-compliance and the opportunities that encourage it. Empirical research on tax evasion in Kenya is still in its early stages, and this study reduces this knowledge gap while providing insights on how to improve the tax system with specific industries, firm size, ages and other attributes informing the legislation. Policymakers will find the research helpful as the findings provide a structure for comprehending the fundamental incentives, opportunities, and justifications for non-compliance with tax regulations, hence aiding in making the right policies to increase tax compliance.

1.6.2 Management of KRA

The research will help KRA managers since they can now understand how the various firm characteristics affect tax compliance. In doing so, management is in a position to invent ways of increasing tax compliance by helping the firms address the challenges related to firm characteristics.

1.6.3 Scholars

Studies on non-compliance with tax laws in Kenya are still in their infancy. Hence, the research is of academic relevance. The study can contribute to the growth of related research in the field by utilising a quantitative method. The study also uses data excluded mainly from analysis in accounting-related fields due to its confidential and sensitive nature, increasing its academic relevance.

Because of the importance of tax revenue in the economic context, the economy is feeling the losses from rampant tax evasion. Understanding tax evasion is crucial for society as it would prevent further unnecessary increases in tax rates occasioned by the need to cater for non-discretionary government expenditure.

1.7 Chapter Summary

This chapter of the study has served as an introduction, laying the foundation and establishing a framework for the whole study. It has illustrated the necessity for more research on this subject in the local context by summarising findings from prior studies on tax compliance in the global, regional, and local contexts. Examining the idea of tax compliance in further detail within the Kenyan context has revealed significant methodological, conceptual, and contextual deficiencies that the present research will attempt to address.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of previous studies and writings on the different parameters used in the study. It helps identify gaps in the body of literature, construct a theoretical framework, and place the research within the broader field of knowledge. It explains the theories that underlie this research and how they relate to the variables. Lastly, it describes the independent variables, their relationships with the dependent variable and with each other. It also outlines the results of earlier research on the factors in question.

2.2 Theoretical Review

There are different schools of thought regarding what drives compliance with tax laws. They address diverse company characteristics and how they relate to tax compliance. This study leverages concepts from the economic deterrence theory and the agency theory. The study opts for a multi-theoretical approach to establish a holistic understanding of the various tenets of tax compliance, providing more comprehensive insights than what a single theory can offer. Multiple theories will therefore complement each other to adequately explain the different aspects of the research topic. Accordingly, Christopher (2011) ascertains that individual theories may have limitations in explaining some key elements of a research topic. Therefore, combining theories helps to address these gaps. Moreover, tax compliance is a complex real-world issue and only a multi-theoretical approach would provide a comprehensive understanding of such a multi-faceted phenomenon. Since different theories are more suitable in varying contexts, a multi-theoretical approach is prioritised to enable tailoring the research and analysis to specific situations.

While the economic deterrence theory anchors the independent variables (firm characteristics) by examining the potential deterrent or incentivising factors affecting tax compliance, the agency theory offers a basis/foundation for understanding tax payer behaviour in general as well as a starting point for understanding tax compliance and non-compliance practices (dependent variable).

2.2.1 The Agency Theory

Developed by Meckling and Jensen (1976), the agency theory states that the conflict of interest between the firm's owners (shareholders), its managers, and significant financiers shapes governance and management (Driver & Bo, 2012). Driver and Bo (2012) emphasise that the theory is derived from the separation between ownership and control. It is based on principal-agent relationships such as boss-worker, doctor-patient, parents-children and those of the owners and managers of corporations. A salient characteristic of contemporary businesses is the transfer of decision-making powers so that shareholders give management with professional experience authority. The goal of separating ownership and control is to increase managerial effectiveness.

One of the critical challenges associated with the division of ownership and control is ensuring that managers strive towards accomplishing the owners' objectives. This is because the interests of the owners and managers do not always coincide. This is based on the theory that people only act in ways that serve their self-interest and survival and that the rational person will always choose the action that maximises utility. Consequently, the two parties frequently have distinct objectives. The principal will act differently from the agent. This necessitates the creation of systems that force the agent to act in the principal's best interest. In order to minimise the problems arising from an agency relationship, the owner is forced to incur agency costs. These include monitoring and administration costs and costs for incentivising the agents. Terms contained in contracts formalise the connection between the principal and the agent. Since having complete control over a person's behaviour is impossible, monitoring an agent's behaviour can never be perfect.

Meckling and Jensen (1976) identified agency relationship as the central tenet of the agency theory (Driver & Bo, 2012). The agency relationship manifests in the contract between owners (shareholders) and managers, the former acting as principals who appoint the latter as agents, delegating all managerial, management, or decision-making authority to them. This transfer of delegation authority is usually part of the contract, with managers expected to act in the owners' best interest. Typically, the agreement between the shareholders and managers should guarantee that managers act on behalf of and in the best interest of shareholders. Organising the 'ideal contract' is intricate since managers'

decisions affect their welfare and shareholders' interests. Thus, this begs the question: what ownership structures can be utilised to encourage managers to act in the best interests of firm owners? Driver and Bo (2012) ascertained that the agency theory is somewhat abstract, similar to economic theory. However, it entails a simple and institutional approach to comprehensively assessing and understanding the firm's economics, including how they correlate. Driver and Bo (2012) further reported that the model had been adequately leveraged to design managerial incentives, the composition and structure of corporate boards, desirable ownership structures and governance codes.

The agency theory perspective anchors the tax compliance concept that is studied under the dependent variable. Understanding tax compliance and non-compliance behaviour, as well as the conduct of taxpayers generally, is based on the notion that an agency relationship exists between the government and taxpayers.

Employing self-assessment systems entails placing considerable amounts of responsibility on the taxpayer, including determining their tax burden and keeping accurate financial records (Fauziati & Kassim, 2018). Companies and business owners are therefore the agents acting on behalf of and in the interests of the government, whereas the government itself, through tax officials, is the principal. These have divergent goals. The tax authorities delegate authority regarding tax decisions to taxpayers and must put in place proper controls to ensure that taxpayers comply with regulations. Taxpayers are rational actors seeking to maximize their expected utility (Leroy, 2011). According to traditional economic or deterrence theories, the decision to comply depends on a cost-benefit analysis, where the taxpayer compares the cost of compliance with the expected cost of non-compliance (Ya'u et al., 2020).

The agency theory assumes that there are no controls in the market, thus leading to market failures, information asymmetry, adverse selection and moral hazards (Salman, 2023). The goal of tax policy research is to provide a framework for control that combines behavioural (improving tax morale) and deterrent tactics. In Kenya, these controls are still in their infancy, especially when it comes to morale and tax culture.

2.2.2 The Economic Deterrence Theory

The economic deterrence theory (1972) originate from the economic theory of crime, which was proposed by Becker (1968) and later advanced and encouraged by Allingham and Sandmo (1972) in their subsequent theoretical analysis of the determining factors of tax compliance (Ya'u et al., 2020). These theories are inclined towards theoretical perspectives, offering frameworks for thoroughly scrutinising tax evasion and compliance (Devos, 2013). These models assume that taxpayers typically avoid discharging their tax obligations and that the risk of audit, detection, and penalties always prevents noncompliance; thus, the phrase “deterrence model” (Devos, 2013).

According to the economic deterrence models, financial factors such as the tax rate and related fines (penalties and interest) determine tax compliance. Compliance also depends on the probability of detection, which has financial effects. The knowledge that specific tax laws are not enforced lowers tax morale, and the absence of enforcement actions and penalties suggests that adherence to the law is not essential. (Bello & Danjuma, 2014). The economic deterrence theory recommends the use of frequent audits by tax authorities as well as the imposition of penalties as a method of deterring non-compliance. According to this theory, whether or not to comply is usually a question of rational decision-making in the face of uncertainty. It can yield a pay-off in the form of lower taxes or result in detection and penalties from tax authorities. As rational actors, taxpayers must weigh the costs and benefits of complying.

The critical weakness of the economic deterrence model is that all its assumptions entail simplistic analyses of human behaviour that disregard the sensitive and illogical nature of human behaviour and direct environmental consequences that alter or limit people's actions (Devos, 2013). Another weakness of the model is its ignorance of the intrinsically subjective nature of the deterrence process (Devos, 2013). Since it is impossible to quantify the subjective benefits and costs of tax evasion, the models become irrelevant. Even when the net reward from tax avoidance is strictly financial gain, the subjective value of the same quantity of money fluctuates from taxpayer to taxpayer. This issue is further complicated by taxpayers' subjective projection of the risk factors of audit, detection, arrest, and punishment instead of any objective probability of the penalty (Devos, 2013). Despite all these deficiencies, the economic deterrence models provide an

accurate theoretical framework and perspectives for analysing the causal relationship between firm characteristics (including size, age, and industry) and tax compliance.

Thus, the economic deterrence models anchor the firm size, age, and industry variables relative to the current study, providing a theoretical foundation for comprehensively analysing their correlation to tax compliance among Kenya's large taxpayers.

By examining the relationship between tax compliance and a firm's industry, this research assumes that specific economic deterrents are present in certain sectors and absent in others, thus affecting compliance rates. Some industries, such as those involved in financial and insurance activities, are subjected to industry-specific regulations, which may influence their motivation to comply with or break tax regulations. Other sectors, such as manufacturing industries, tend to have more tax incentives (e.g. capital allowances for commercial buildings and machinery used for manufacture) available to them and additional regulations such as using excise stamps for manufacturers dealing in excisable goods. Most retail and wholesale trade businesses are not highly regulated and carry out cash-based transactions. It is practically impossible to investigate cash-based transactions and firms in industries with a high volume of undocumented cash transactions are more likely to have motives to violate tax laws (Azrina et al., 2014). Implementing a self-assessment method promotes non-compliance among these businesses, as external controls are usually lax. Firms in labour-intensive and service-oriented industries like construction and catering tend to have higher non-compliance rates. They have fewer visible fixed assets, making evading taxes easier (Azrina et al., 2014).

The economic deterrence theory also anchors the size variable. Firm size is a good indicator of many other factors, which may act either as economic incentives or as deterrents to tax compliance. These include economies of scale, resource slack, political influence and visibility, access to credit, market share, bargaining power, specialization, experience/expertise and stronger internal controls (Wakil, 2020, Kartikaningdyah, 2019).

The economic deterrence theory supports the age variable. A firm's age could indicate its market exposure & expertise, external scrutiny, and its reputational risk and the experience gained from past tax audits (Coad, 2018). These elements could serve as financial inducements or disincentives for paying taxes.

2.3 Empirical Review

This chapter discusses the key variables under study and their relationship with the dependent variable. It examines and synthesises past studies on firm-specifics and tax compliance, looking at global, regional, and local contexts. The section also examines related literature that has focussed on environments moderated by liquidity levels. Typically, assessing the solid evidence collected by other studies and their findings provides a detailed understanding of the nature of the relationship between the independent variables, moderating variable, and dependent variables rather than just focussing on theoretical concepts.

2.3.1 Firm Size and Tax Compliance

Research on the relationship between firm size and tax compliance has yielded varying results both in the global and local contexts. Several studies, mostly conducted in Southeast Asia, have examined the relationship between firm size and tax compliance and yielded differing results.

Some authors indicate that larger companies are more inclined to be tax compliant as a result of improved internal controls, political costs, reputational concerns, and access to professional audit services (Nguyen et al., 2020; Azrina et al., 2014; Ahmad et al., 2011; Ghani et al., 2012; Teguh & Kristanto, 2020; Ahmad et al., 2011; Sopiyan, 2022 and Bachas et al., 2023). Studies in countries like Indonesia, Malaysia, and Vietnam support this trend.

Extensive multi-nation research covering thirteen countries in Eastern Europe, Latin America and Africa by Bachas et al. (2023) linked higher compliance among large firms to government tax amnesty programmes, which seek to stimulate innovation and draw in foreign investors. Their study investigated the relationship between firm size and effective tax rates using administrative tax data for the thirteen countries. The Effective Tax Rate (ETR) was computed as the Tax Expenditure divided by Net Profit, while firm size was computed as total revenue. Thirteen countries—including those in Africa, Latin America, and Eastern Europe—provided full-population administrative tax data for the study. Bachas et al. (2023) found a positive association between company size and effective corporate tax compliance rates, attributing effective tax compliance rates to the largest

firms. The findings are reliable because in arriving at the net profit, the study distinguishes between the standard deductions (e.g. material costs, labour costs and finance costs) which are uniform across most countries versus tax-allowable deductions (e.g. tax exemptions, other tax incentives and preferential tax rates) which vary across countries depending on the tax policy choices. It recomputed the net profit to reflect only standard deductions, thus increasing the reliability and comparability of the results. Additionally, the study results hold up well across a variety of company size metrics, including payrolls and total assets. However, there is a likelihood that the results might not be entirely generalizable and might need to be adjusted to reflect country-specific tax environments because some concepts are country-specific e.g. how much loss can be carried forward when arriving at the net profit, availability of various tax incentives, preferential rates, exempt incomes and non-deductible expenses. Additionally, because of tax evasion and tax avoidance, the net profit figures used may differ from the actual and exact economic figures. The research aggregates data from 13 countries, excluding Kenya. The current study will focus on Kenya. The research calculates the Effective Tax Rate (ETR) as the Tax Expenditure/Net Profit, while in the current research, the dependent variable (tax non-compliance rate) is the additional assessment value, hence filling a methodological gap.

Further, Kimea et al. (2023) found that large firms in East Africa are less tax-aggressive compared with small ones, indicating that firm-specific determinants such as firm size to some degree influence tax compliance. The study looked into the variables influencing listed companies' aggressive tax planning strategies among companies in East African economies. The firm characteristics investigated were firm size, age, leverage, profitability, capital intensity and their effect on tax planning. Data was gathered from 99 companies in Kenya, Uganda and Tanzania over the course of 11 years, from 2007 to 2018. The data points observed for the entire period were 1,021. The research used a panel data regression model. Tax planning was computed as the cash effective tax rate (CETR) and accounting effective rate (AETR). Cash-effective tax rate (CETR) was calculated as cash paid divided by pre-tax accounting income. Accounting-effective tax rate was computed by tax expense divided by pre-tax accounting income. The CETR was expected to be more reliable as it does not include other factors that may not necessarily

be tax-reducing initiatives. Size was computed using the natural log of total assets. The length of time a company's stock has been traded on the stock market was used to calculate age. Based on the Hausman test results, the study used the fixed effects estimation method. According to the study's findings, smaller businesses are more tax aggressive than larger ones. This is consistent with the political cost theory. The size of the firms was therefore found to have a significant positive association with both CETR and AETR. Further, the study found that businesses that are more profitable are less tax aggressive than those that are less profitable. Profitability (measured by ROA) had a positive and statistically significant association with CETR and AETR. Overall, size, age and profitability were statistically significant factors while leverage and capital intensity were not statistically significant in relation to tax avoidance. The study broadens our understanding of how firm characteristics affect tax avoidance tactics used by East African businesses. The use of more than one measure for the ETR increased the robustness of the study's results. The research recommended that emerging economies should review their investment policies and create an environment that encourages more lucrative enterprises to invest, since profitable firms were found to be less tax aggressive. Future researchers can consider alternative dependent variables, or different ways of measuring tax evasion such as the tax audit adjustments.

Similarly, Anggraini (2022) linked higher sales growth to increased tax avoidance among twenty-nine companies in the food and beverage sectors listed in the IDX and selected using purposive sampling technique to select 29 companies. Data for the year 2020 was analysed using Eviews 9 program. Tax avoidance was measured used the Effective Tax Rate (ETR) which is the income tax expense divided by profit before tax. Profitability was measured as ROA (Return on Assets which is computed as net profit after tax divided by total assets). Age is the duration of establishment in years. Sales growth is the difference between current and previous year's sales amount as a percentage of current year's sales volume. The research found that growth in sales has a positive effect on tax avoidance. These results imply that although larger companies might possess the resources necessary for compliance, they might also utilise them to seek legal or illegal ways to lower their tax liabilities. Since the study's goodness of fit (R-squared) was only

15.10 percent, some control variables ought to have been included. The generalisability of the results may be limited by their exclusive focus on the food and beverage sector enterprises listed in the IDX, which might obscure nuances specific to other industries or economic sectors. Further, since tax avoidance may not necessarily indicate noncompliance, the results may differ where the dependent variable under investigation changes, as in the present research which focusses on non-compliance.

Further, Sari (2021) also discovered that large mining companies in Indonesia were more likely to evade paying taxes because they could exploit weaknesses in the tax system. The study investigated how business size, profitability, and leverage was related to tax evasion in Indonesian mining companies from 2014 to 2018. Financial information from twenty one (21) out of forty seven (47) mining businesses listed on the stock exchange was examined in the study using explanatory and descriptive approaches. The study discovered a strong correlation between firm size and tax evasion, with larger companies having higher levels of sophistication and being better equipped to exploit tax system flaws to escape paying taxes. However, the mining industry was the study's context; to fill the void, a new study involving businesses from Kenya's large taxpayers' office was carried out, and the dependent variable was noncompliance. The discovery is consistent with findings from Anggraini (2022), who found a positive relationship between sales growth and tax avoidance.

Equally using quantitative data involving secondary data obtained from construction firms listed on the Indonesian Stock Exchange (2017-2019) and selected using purposive sampling, Sopiya (2022) made a more controversial finding. Employing profitability as a moderating variable to investigate the relationship between tax avoidance, leverage and firm size, Sopiya (2022) found that in Indonesia, the impact of corporate size on tax avoidance is negative and substantial. Purposive sampling was used to choose data from the annual financial statements of construction companies listed on the IDX, which covered the years 2017–2019 and the data was analysed using Eviews software. Total assets were used to calculate the company's size. The study however lacks information regarding the operationalisation of the tax avoidance variable. According to the study, the business size variable significantly and negatively affects tax avoidance. The impact of

firm size and leverage on tax avoidance is not mitigated by profitability levels. Hence, only the firm size variable was found to be statistically significant in affecting tax avoidance. The research contributes to the corpus of knowledge on industry-specific patterns regarding tax avoidance by concentrating on businesses in the construction sector. The findings of this study corroborate the IMF recommendation for countries to reorganize their tax administrations around taxpayer segments rather than around functions. This makes it possible for tax administrations to more effectively handle the various stakeholders' compliance needs, with larger businesses having distinct needs than medium-sized and small businesses e.g. tailored education and other targeted and enhanced services. More study can be conducted to compare and determine whether there are comparable trends in other industries or economic sectors, as this study focussed on construction companies. In Southeast Asia, many elements converged to create an inclusive, broad-based tax system (Chongvilaivan & Chooi, 2021) and nations (except Malaysia and Singapore), have historically lacked tax-avoidance laws (KMPG International, 2013).

In a study involving 187 companies that the Vietnamese tax authorities, Nguyen et al. (2020) used the gap between taxable income before and after a tax audit to indicate non-compliance with corporate income tax. From the findings, based on a probit regression model on a sample of 187 businesses that were inspected or investigated by Vietnamese tax officials between 2013 and 2017, Nguyen et al. (2020) observed that a company's compliance with corporate income tax increased with its size, and that a lack of understanding of accounting and tax law essentially caused non-compliance. These research findings are pertinent to the current study because they operationalise the non-compliance rate using a similar methodology. The study is based on theories of tax noncompliance, such as the fiscal and social psychology models and the economic deterrence model. Eight elements influencing non-compliance with corporate income tax (CIT) were analysed in the article: working capital to total assets ratio; revenue to total assets ratio; total debt to total assets ratio; losses in prior years; revenue to receivables ratio; the size of businesses; tax administrative penalties/tax payable; and business field. The study found that the following five factors were important predictors of tax non-compliance: the working capital/total assets index, the losses from the prior year, the ratio

of total debt to total assets, the accounts receivable/total sales ratio, and the size of the organisation. Future researchers should consider the role of contextual factors to reconcile the differences with past studies. Further, no single measure is sufficient to measure non-compliance and hence, studies using other parameters are necessary.

Kartikaningdyah (2020) looked into how executive character, ROA, and firm size were related to tax avoidance. The study used data on manufacturing companies that were listed between 2010 and 2017 on the IDX. The Effective Tax Rate was used to gauge tax avoidance. The logarithm of Total Assets was used to calculate the firm's size. ROA was calculated by dividing Earnings after Tax by Total Assets. The CEO's propensity for taking risks or avoiding them is termed executive character. To gauge executive character and risk-taking mind-set, the study considered the company's income fluctuation or the Standard Deviation of the EBITDA/Total Assets. According to the study, risk-taking leaders typically have larger debt financing, which results in higher interest rates and lower tax obligations. Financial leverage (Total Liabilities/Total Assets) is thus used as a control variable. Using Eviews 9 for analysis, the researcher found that firm size had no effect on tax avoidance, while ROA and executive character had a substantial and negative effect. The study assumes that a greater standard deviation or fluctuation in a company's earnings indicates a higher risk-taking attitude of the executives. This is not necessarily the situation in real life, where fluctuations in income earned can be caused by other business dynamics and macro-economic factors such as changes in operating costs, increased competition, increased labour costs, consumer demand shifts, and exchange rate fluctuations. Only 46 out of 143 businesses satisfied the requirements to be included in the sample, which may have limited the findings' generalisability and introduced bias. The research does not provide adequate explanation on why their findings on the relationship between size and tax avoidance go against most other previous research findings and against their hypothesis. Future researchers can look into alternative proxy's for indicating executive character since the measure used in the current study (I.e. fluctuation in income earned) may not be sufficient. Subsequent researchers can include variables like political ties, fixed asset intensity, and inventory intensity that are believed to affect tax avoidance. They can also include more companies in the research sample to reduce errors resulting from bias and compare the behaviour of companies in different industries. Within the

local context, a company's gross sales would provide a better measure of firm size. Using sales revenue would guarantee that the results are pertinent and applicable to Kenyan tax compliance since it is the metric used by the Kenya Revenue Authority to categorise businesses into large, medium, and small taxpayers (KRA, 2022). Further, my study will investigate tax non-compliance rather than tax avoidance.

This notwithstanding, large businesses, particularly multinationals, frequently use aggressive tax planning or avoidance tactics to lower their tax liabilities, according to the OECD (2016) and Yahaya & Yusuf (2020), who investigated the impact of firm size, profitability, leverage and firm age on aggressive tax avoidance of listed insurance companies in Nigeria. The study is anchored on the positive accounting theory (Watts and Zimmerman, 1978). Twenty (20) randomly chosen listed insurance companies' audited annual reports for the years 2010 to 2018 provided the data. The natural logarithm of a company's total asset worth was used to calculate the firm size. This is consistent with the method used in several other researches. To gauge profitability, return on assets (ROA) was used (i.e. pre-tax profit divided by total assets). Leverage was calculated as the ratio of total long-term debt to total assets. The company's years of legal existence served as a proxy for age. The Effective Tax Rate (ETR), which is calculated as the total tax expense for the period divided by the pre-tax income, is used in the research to quantify tax avoidance. The firm size and age were measured using the natural log of total assets and the length of time the firm had been in legal existence. According to the study, firm size significantly increased the aggressiveness of the listed firms' tax evasion techniques by 0.628 (p-value < 1% level of significance). The research supports the hypothesis that company characteristics (such as age, profitability, leverage and firm size) have an impact on the use of aggressive tax avoidance strategies. Yahaya and Yusuf (2020) discovered that firm size was remarkably and positively correlated with the aggressiveness of tax avoidance tactics among these companies. Numerous aggressive tax avoidance tactics increased with the organisation's size. The variables in the study were accurately operationalised through the use of appropriate proxies. However, the ETR may not be an entirely reliable indicator of aggressive tax evasion. A company's low ETR may simply be a reflection of macro and microeconomic conditions or bad investment decisions,

rather than an aggressive attempt to avoid taxes. Furthermore, because insurance businesses have a distinct set of characteristics, the factors driving tax evasion in this industry might differ from those in other industries. The dependent variable (tax avoidance) refers to legal methods used to reduce tax liabilities, while the current study analyses non-compliance, which may sometimes involve deliberate tax evasion.

Okpeyo et al. (2019) conducted a study in Ghana that demonstrated that small and medium-sized businesses have significantly different tax compliance levels. The leading cause of the discrepancy is small businesses' incapacity to maintain accurate and up-to-date business operations records and file tax returns by the deadline. The current study fills a contextual gap by examining companies among Kenya's large taxpayers. Further, using panel data, Mascagni and Mengistu (2019) found that despite having proportionate tax rates, medium-sized businesses in Ethiopia have the lowest effective tax burden out of all business sizes, with large corporations having a lower effective tax burden than small businesses.

Similarly, Almunia and Lopez-Rodriguez (2018) conducted research in Spain to investigate how monitoring affects tax compliance among businesses in the large taxpayer's unit in Spain. Those with yearly incomes exceeding €6 million are categorised as large taxpayers. Anchored in the Lucas (1978) model, the study examined the degree to which tighter oversight interacts with data from third parties to improve businesses' tax compliance and at how businesses react when tax authorities use more monitoring tools to look into the information trails left by corporate operations. The study made use of information from financial statements that Spanish businesses are required by law to publish to the tax office and the Commercial Registry. The study began by producing speculative forecasts on how businesses might react if the tax authority's capacity for confirming the transactions they report increased. The Large Taxpayers Unit (LTU) in Spain then supplied a quasi-experimental variation in monitoring effort, which they used to evaluate the model's predictions. They found that businesses deliberately cluster below the qualifying threshold to evade more stringent tax enforcement, especially in industries where transactions generate more paper trails. Businesses under the LTU's supervision reported larger tax bases, suggesting that the strategy is successful in lowering tax evasion.

This suggests that more prominent companies on whom tax authorities rely to reach revenue targets would have higher tax compliance rates and that applying more stringent tax oversight to smaller enterprises would result in significant benefits. While the focus of most past studies is on individuals and small enterprises, there isn't much microdata on the factors that influence larger firms' tax compliance. Despite the recommendation by IMF for the establishment of LTU's and its widespread adoption by many countries for better tax administration and improved tax compliance, there have been limited studies and empirical evidence on the performance and tax compliance behaviour of taxpayers in this unit. The study employed the quasi-experimental variation method, which is appropriate in the context of a developed nation like Spain, where overt non-compliance is not common; instead, the companies manage their taxes using strategies like avoiding excessive scrutiny. The research therefore focussed on the tendency of firms to cluster below the LTU threshold in order to avoid monitoring. The research assumed that the probability of detection depends on the interaction between the monitoring effort by tax authorities (to examine paper trails and tax returns) and the enforcement technology/information-reporting requirements. While providing a holistic approach to analysing tax compliance behaviour by looking at it from the perspective of the tax authority (monitoring efforts) as well as from the perspective of the company (information-reporting requirements), it assumes a low tax morale and does not take into account factors such as tax incentives, and social and psychological factors like personal and social norms (attitudes, values, ethics and tax morale). It therefore focusses on economic deterrents which may not be sufficient to explain tax compliance behaviour or reactions to tax authorities. The research confirms the effectiveness of size-dependent tax enforcement measures as recommended by the IMF and which have been adopted by many OECD countries. The study however creates a methodological gap because it employed the quasi-experimental variation method to analyse how large companies respond to monitoring efforts/tools employed by tax authorities. The findings corroborate the economic deterrence theory which states that the presence of frequent audits deters non-compliance to tax regulations. The findings therefore go against schools of thought which state that taxpayers in large economies comply with tax laws whether or not

economic deterrents exist. The current research uses a different parameter to gauge non-compliance (i.e. additional assessment amounts).

The findings by Nguyen et al. (2020) are comparable to Azrina et al.'s (2014) study involving Malaysia's medium-sized and small businesses. Using data and evidence from tax audits in Malaysia in 2011, Azrina et al. (2014) discovered a moderately negative correlation between the firm's size and tax non-compliance. The study provides a useful guide to tax authorities to divert time and resources to firms with certain characteristics when conducting audits, e.g. domestic-owned companies and those in the construction industry. This research used multiple regression to test 375 tax-audited cases finalized by the Inland Revenue Board of Malaysia, which is a relatively large dataset that therefore increases the predictive accuracy of the model and reduces other biases. The results from the R-square show that the independent variables in the regression only explain 23.6% of tax non-compliance by corporates. Hence 76.4% of non-compliance was due to other factors e.g. corporate culture and the behaviour of top management. Hence, there is room to conduct further research on other factors affecting tax non-compliance. The research confirms the validity of the elements in the fraud triangle i.e. pressure, opportunity and rationalization. The pressure element is confirmed by the positive relationship between tax fraud and financial liquidity. The existence of opportunities may be the reason for the high levels of non-compliance in the wholesale and retail trade sector, as the majority of businesses in this industry are not subject to strict regulations. The study further highlights that inadequate tax education and ignorance of tax laws are major causes of tax fraud and that fraud was found to be higher among domestic-owned companies than in foreign-owned companies. Therefore, tax authorities must therefore raise awareness, educate, and streamline procedures in order to boost voluntary compliance. Despite finding a relatively weak correlation between firm size and tax compliance, both Azrina et al. (2014) and Nguyen et al. (2020) found that tax noncompliance tends to decrease as firms grow in size.

According to Teguh and Kristanto (2020), an analysis of Indonesian financial data from 2014 to 2018 revealed that larger businesses are less likely to commit financial reporting fraud as a result of political costs and reputational concerns. The main objective was to determine whether the tendency of fraudulent financial reporting (TFFR) among

Indonesian enterprises is influenced by the company's attributes (firm size, firm age, management integrity, and audit quality). The tendency of fraudulent financial reporting was measured using the F-Score model, which measures the probability of fraud using financial statement data (accrual quality and firm performance). The research used secondary data on total assets, total liabilities, total sales, total inventory, total receivables, cash flow from operation, and profit of the year obtained from the financial statements and annual reports of 327 Indonesian companies listed and published in the Indonesian Stock Exchange, over period of four years (2014 to 2018). Utilising a large data set ensured the findings' reliability and credibility. However, due to varying policy and economic situations, their findings might not be entirely applicable in other contexts. Further research can be done to analyse fraud among various economic sectors or industries. The research focussed on fraud, while the current study will focus on non-compliance to tax laws, which can occur even in the absence of deliberate financial manipulation. The research also relied exclusively on secondary data which may be subject to risk factors such as earnings management during financial reporting.

Similarly, Ahmad et al. (2011) used 396 completed tax audit cases in Kuala Lumpur, Malaysia, in 2004. The study investigates the interplay between fraudulent financial reporting and business attributes, including their size, ownership structure, and auditor types. The natural log of the company's total sales was used to calculate business size. The code for large audit firms (50 percent of the sample) was 1, while the code for small and medium-sized audit firms was 0. Companies were categorised as either controlled or uncontrolled using indicators: 1 for controlled companies and 2 for non-controlled companies. Like in the current study, the financial reporting irregularities discovered during a tax audit served as the dependent variable. These were divided into seven groups: stock adjustments, unallowable expenses, transfer pricing adjustments, understatement of sales, overstatement of purchases, allowance adjustments and other adjustments. The misstate_ratio is $\text{misstate_amount} / \text{true_income}$, and the misstate_amount is the total amount of these misstatements (where true income was calculated by adding back the misstate_amount to the unaudited income). The industry type was used as a control variable that can influence the levels of financial misstatement and was therefore held constant. The study discovered a strong inverse correlation between a firm's size and

misleading financial reporting in businesses, and that the Big Four audit firms outperformed their smaller competitors in terms of their ability to prevent financial reporting fraud. This implies that compliance rates are higher for larger organisations, which commonly rely on large audit firms' expertise. The nature of a company's control and misleading financial reporting did not significantly correlate, according to the study (controlled and uncontrolled enterprises were the same). The study's conclusions are pertinent to the current investigation, which chose to use data from the office of large taxpayers. Since large corporations typically work with large audit firms, their financial records are usually more reliable. Businesses that use small audit firms are more likely to have undiscovered fraud or intentional misstatement, according to Ahmad et al. (2011). The Political Cost theory serves as the study's foundation. The enormous sample size (396 tax audit cases) increases the reliability of the findings because the conclusions are based on case-by-case in-depth audit results. Further, for each of the cases selected in the sample, they classify the type of financial misstatement into seven (7) different groups, thus making the research findings very specific. The research includes nine (9) different independent variables (type of auditor, company size, and form of control, manufacturing industry, commercial industry, agricultural industry, service industry, construction and real estate industry) and analyses their relationship with financial misstatement, making the research exhaustive and all-inclusive. However, only three of the nine independent variables were found to have a significant relationship with fraudulent financial reporting. This means that there may be other significant factors affecting fraud that were left out, thus leaving room for further research. Additionally, one of the objectives of this research was to study the relationship between the form of control and tax fraud. In this study, controlled companies are defined as those that are owned by families or have a sole owner. Given this definition, the correct independent variable should have been “form of ownership” and not “form of control”. The research provides a helpful guide in conducting similar studies in different contexts /countries. Their findings indicated which independent variables could be left out since they may not significantly affect fraudulent reporting e.g. the form of control which had an insignificant effect on tax fraud. However, the dynamics might be different in other nations or settings, and the outcomes might differ according to the industries under investigation. Since Kenya has a significantly smaller

economy than Malaysia, where the ICT and electronics sector is the primary economic driver, the current study will concentrate on the country's key four industries, which are manufacturing, wholesale, and retail trade, financial and insurance activities and construction.

Ghani et al. (2012) reported similar findings, emphasising that, indeed, among Malaysian enterprises, firm size was a significant driver of tax compliance. The study used 194 completed business tax audits with tax audit adjustments amounting to RM 114.35M gathered from the Malaysian Inland Revenue Board in 2010 using random sampling. The sample was selected after accounting for instances with zero sales income and zero tax adjustments. A multiple regression analysis was then conducted. The study measured corporate tax non-compliance using tax audit adjustment as the indicator. The dependent variable was the non-compliance rate. Additional taxes and penalties levied against taxpayers following the completion of the tax audit are referred to as the tax audit adjustment. The tax audit adjustment is divided by total assets to determine the non-compliance rate. The following independent variables were analysed: the economic sector or industry (real estate, manufacturing, and wholesale and retail), firm size (as determined by the log of total sales), the auditor, the financial performance (as determined by dividing net profit by total sales, or the percentage net profit margin) and Working capital (calculated as current assets minus current liabilities divided by total assets) which was used a measure of financial liquidity. Penalty Rate (calculated by dividing the penalty imposed by the additional taxes) and Form of Ownership (calculated by 1 if the company has foreign equity and 0 if it is fully domestically owned) were also employed as independent variables. In their research, Ghani et al. (2012) found that small businesses made up 97% of companies in breach of tax regulations, concluding that noncompliance was high among small businesses since they lack the resources to invest in tax education and have no adequate knowledge of tax legislation. Ghani et al. (2012) also found that while noncompliance was higher among small, domestic-owned firms, it was smaller in foreign-owned firms, which have well-trained expatriates such as lawyers that assist them in dissecting tax laws to leverage loopholes and arbitrage opportunities amidst weak laws. Studies by Ahmad et al. (2011), Ghani et al. (2012), and Nguyen et al. (2020) propose

that tax authorities, therefore, need to find ways of increasing awareness, teaching and simplifying processes to increase voluntary compliance.

Additional findings were made by Beasley et al. (2010) and Hermanson et al. (2010), who noted that financial statement fraud impacts American businesses of all sizes, from start-ups to multinational conglomerates. Additionally, in South Africa, Du Toit (2008) found no evidence of a consistent correlation between firm size and fraud. While Fleming et al. (2016) and Ali et al. (2022) revealed relatively weak correlations between firm size and tax behaviour, these data suggest that fraud and non-compliance are not limited to firms of a specific size and may instead be impacted by contextual factors.

In Kenya, Barako et al. (2006) found that larger firms provided more excellent voluntary information than smaller ones listed on the Nairobi Stock Exchange. This can be the result of increased financial resources and stakeholder demands. It can also be attributed to effective tax planning and research among larger firms (OECD, 2016).

OECD (2016) reported that large firms, usually large multinationals, often invest more and engage in rigorous tax planning and research to lower their tax rates. Such tax planning, however, indicates the desire to reduce tax liabilities and may however, sometimes lead to avoidance or non-compliance.

2.3.2 Firm Age and Tax Compliance

According to Indriani and Juniarti (2020), Fleming et al. (2016), and Satria and Lunardi (2023), there was no discernible correlation between firm age and tax evasion. This suggests that older organisations might commit sophisticated, harder-to-detect types of fraud. Similarly, Fleming et al. (2016) found that fraud was more common in older public organisations where seasoned personnel employed advanced techniques to get around the control measures, thus highlighting the relevance of capability in fraud risk management.

These results suggest that although firm age may decrease overt non-compliance, it may also make more sophisticated and calculated types of evasion possible. Therefore, the association between business age and tax compliance is still context-dependent and needs more research, especially in areas like Kenya that have received little attention.

Satria and Lunardi (2023) examined how firm age, profitability (ROA), and sales growth affected tax evasion (CETR). The 73 consumer products businesses listed on the IDX between 2018 and 2020 made up the study's population. Purposive sampling was used to gather the study's sample, and the outcome was 32 businesses that met the study's requirements. The study employed multiple statistical tests for the data analysis approach, such as hypothesis testing, double linear regression analysis, classical assumption testing, and descriptive statistics analysis. The study concluded that a firm's age does not entirely explain tax evasion. Given that this study was conducted on consumer product businesses listed on the IDX, a contextual gap is apparent. The study's primary goal of examining the variables influencing tax evasion was accomplished, mirroring the actions of Indonesian businesses, a country with an upper middle-class economy that mainly depends on manufacturing activities (such as and auto parts, electronics and cement,) to support its economy.

Similarly, Anggraini (2022) examined the relationship between profitability, firm age, and growth and avoidance of taxes in the food and beverage sub-sector industries for firms listed on the IDX. The research employed a quantitative methodology using secondary data. Thirty-two businesses in the food and beverage subsector listed on the IDX in 2020 made up the study's population. The ETR (income tax expense divided by profit before tax) was used to calculate tax avoidance. Age is the number of years since establishment. The EViews 9 software was used to examine the gathered data due to its user-friendly interface and ability to execute panel data analysis remarkably. According to the study, tax evasion is negatively impacted by a firm's age. Since tax avoidance may indicate noncompliance, the current study's investigation is relevant. However, because the study was restricted to businesses in the beverage subsector, there is a conceptual gap. Given that the study's R-squared (goodness of fit) was just 15.10 percent, some control variables should have been added. The results' narrow emphasis on the food and beverage sector businesses included in the IDX may limit their generalisability and mask subtleties unique to other industries or economic sectors. Furthermore, where the dependent variable under consideration varies, as in the current study that emphasises on non-compliance, the results may vary because tax avoidance may not always signal noncompliance.

Indriani and Juniarti (2020) investigated the impact of firm size, sales growth, firm age, and profitability on tax evasion in listed pharmaceutical sub-sector firms registered on the IDX. A quantitative approach using secondary data was employed to analyse a sample of ten pharmaceutical sub-sector businesses listed between 2016 and 2019. The purposive sampling technique was used to choose this sample. The study discovered that tax avoidance is unaffected by a firm's age. The study's conclusions differ from those of other investigated research, but because of the small sample size, they may be biased. Additional variables related to business performance could also be included to mitigate the problem of omitted variable bias. With varying macroeconomic factors like government policies, the cost of doing business, political influence and other country-specific environmental factors, the study introduces a contextual gap.

Teguh and Kristanto (2020) found that the older the firm, the less likely it was to submit false financial reports. After removing outliers, 327 companies listed on the IDX were considered in the study. Over the course of four years of observation (2014–2018), 1306 data points were included. The F-Score model, which calculates the likelihood of a fraud using financial statement data (accrual quality and business performance), was used to assess the tendency of fraudulent financial reporting. The study used secondary data from the financial statements and annual reports of listed Indonesian companies, including total sales, total inventory, total assets, total liabilities, total receivables, cash flow from operations, and profit of the year. Anchored in the political cost theory, the researchers discovered that older companies had better internal controls and years of experience in their industries, which reduces the likelihood of inaccurate financial reporting. They also demonstrated that using the F-Score model to measure the probability of fraud provides an accurate method of measuring fraud as the score incorporates many variables obtained from financial statements. Use of data from annual reports submitted to the Stock Exchange increased the credibility and reliability of the findings. While Teguh and Kristanto (2020) investigated the relationship between company characteristics in Indonesia and fraudulent financial reporting in general, this research will focus on tax non-compliance among Kenyan companies. More study can be conducted to examine and contrast fraud across different industries or economic sectors.

Yahaya and Yusuf (2020) further found that the firm's age affected how forcefully tax avoidance techniques are employed among Nigerian insurance firms. A percentage increase in the age of insurance firms led to a reduction in aggressive tax mitigation strategies. The research measures tax avoidance as the total tax expense for the period divided by pre-tax income. Using this proxy as a tax avoidance measure may not be completely accurate. Some firms might have low figures but are not deliberately or aggressively targeting to avoid tax; they could be making losses and incurring huge non-discretionary expenses. However, there's a fine line between disregarding tax regulations and using sophisticated tax mitigation techniques, as the latter can easily lead to evasion and indicates the firm's intention to minimise its tax liability, although it is done using legal methods. Additionally, the circumstances that lead to tax evasion in the insurance industry may be different from those in other industries due to the unique characteristics of insurance enterprises. While the current study examines non-compliance, which occasionally involves intentional tax evasion, the dependent variable (tax avoidance) relates to lawful strategies used to lower tax liabilities.

In Indonesia, Fauziati and Kassim (2018) inquired about how risk management, size, age, and company industry affected tax compliance expenses. Using questionnaires, data from 92 respondents in Padang City was collected for the study. This study's chosen research design is a survey design. The questionnaires used a lickert scale, with responses ranging from strongly agree to strongly disagree. For the Age variable, 1 indicated that the business has been in existence for 5 years or less and 2 if the business has been in operation for more than 5 years. The industry variable was coded as 1 for the service sector; 2 for the retail sector; 3 for the manufacturing sector. Size was measured using total assets, with 1 for total assets less than 50 million rupiahs; 2 for total assets of between 50 million rupiahs and 500 million rupiahs; 3 for total assets of between 500 million rupiahs and 10 billion rupiahs. The study concluded that tax compliance expenses are unaffected by age, size, or industry. Only risk management was found to have an impact on tax compliance costs. This was in contrast to other study findings, which showed a significant effect of the firm age, size and industry on tax compliance. The study has advanced our understanding of how business attributes affect tax compliance expenses. An R-squared of 0.067, or 6.7%, however, suggests that the model is weak, even though the variables

were statistically significant. Future researchers can therefore include some control variables to increase the robustness of the model and the R-squared value. While Fauziati & Kassim (2018) concentrated on tax compliance costs and how business characteristics (size, age, and sector) impact these costs, the current study will examine the degree to which these characteristics impact tax non-compliance, as demonstrated by the payment made for an additional assessment. Furthermore, compared to Kenya, the study was carried out in a developed nation with more sophisticated tax laws, processes, and structures.

Smaller businesses are typically younger, and larger companies tend to be older. However, this is not always the case, as specific industries experience exponential growth in relatively short periods while other businesses maintain steady asset levels and gross turnovers over protracted periods. Hence, the two variables are distinct because the firm's age does not always correspond with its size.

In another separate China-based study involving prefectural data such as value-added tax, individual income tax, and corporate income tax data, Yu (2020) found that as a firm gets older and matures in business, it faces strict external financial oversight that discourages avoidance, evasion, or noncompliance, while encouraging compliance. Contextually, Nigeria and China are far apart economically. This raises concerns about whether contextual factors shaped the findings of Yahaya and Yusuf (2020) and Yu (2020). As such, there is a need for additional research in different contexts, such as Kenya, to substantiate whether there is a significant correlation between firm age and tax compliance.

Xu and Chen (2018) conducted an empirical analysis that revealed that older individuals forming part of the Board of Directors in Chinese firms typically have more significant experience and stand to lose more than their younger counterparts if they neglect their oversight roles. Firms with older directors, therefore, tend to have stronger oversight over the CEOs who report to them; hence, when the average age of the board of directors rises, the likelihood of a CEO engaging in accounting malpractice decreases. In a similar study in Indonesia by Mukhlis and Simanjuntak (2016), the researchers found that as the age and level of maturity of CEOs in small and medium enterprises increased, knowledge and

accuracy levels on various issues about business augments. This includes knowledge about taxes. In another similar study focusing on an individual's age rather than that of the firm, Sun et al. (2019) found that the likelihood of misleading financial reporting is higher among younger male CFOs with less schooling. According to Sun et al. (2019), this misleading financial reporting manifested in exaggerated profits, fabricated assets, significant omissions, and other misrepresentations. Sun et al.'s (2019) research was conducted among Chinese listed firms from 2000 to 2014, and it did not investigate fraud that is carried out to reduce tax liability but fraud perpetrated to portray a more favourable financial position to investors and financiers. Both Xu and Chen (2018) and Sun et al. (2019) investigated the age of the individual board director rather than the firm's age. Since older board directors are expected to work for older organisations, these findings are pertinent to the investigation and support the research assumption that a firm's age may have a positive relationship with compliance. Similarly, Acheampong (2016) discovered a strong correlation between tax compliance and business experience among small and medium enterprises in Ghana.

In a similar vein, Fleming et al. (2016) expanded research on financial reporting fraud (including tax avoidance or noncompliance) by comparing public and private firms using first-hand survey data from the ACFE. They found that public firms, which tend to be older than their private counterparts, experienced fraud on a larger scale. This discovery is inconsistent with other findings. In support of their findings, Fleming et al. (2016) ascertained that perpetrators in old public firms tend to employ more sophisticated and less noticeable methods of perpetrating fraud. Using their years of experience and expertise, they astutely side-step internal controls. However, such highly complicated fraud plans may increase the likelihood of being discovered formally instead of by chance. Fleming et al.'s (2016) findings highlight the importance of the fourth element in the fraud triangle: capability, which refers to an individual's competence, position or intelligence and enables him to perpetrate fraud cleverly. This suggests that tax auditors should be on the lookout for unique fraud risks facing older (and larger) firms. Fleming et al.'s (2008) findings are relevant to the current research investigating non-compliance, which is also a fraud risk.

Researchers like Yu (2020), Du Toit (2008), Teguh and Kristanto (2020), Arend (2014) and Eichfelder & Kegels (2014) contend that older businesses have more exposure to external scrutiny, stronger internal controls, accumulated expertise, and reputational and structural complexity all of which lower the risk of tax non-compliance and fraud. Additionally, research looking at the age and experience of executives (Xu & Chen, 2018; Sun et al., 2019; Mukhlis & Simanjuntak, 2016) indicates that older CEOs and directors are more informed and cautious, which improves compliance.

Pfaffermayr (2013) and Anggraini (2022) emphasise a positive correlation between firm age and corporate tax rates in Europe and Indonesia. In Africa, Acheampong (2016) demonstrated a positive correlation between business experience and tax compliance in Ghana. Similar findings were made by Yahaya and Yusuf (2020), who discovered that tax evasion among Nigerian insurance companies declined with firm age.

Similarly, an earlier study by Du Toit (2008) focused on firms in South Africa, concluding that firms that engage in fraudulent activities are more often younger. Despite contextual differences, these two studies indicate that non-compliance with tax legislation would follow the same pattern. However, there is a need for additional research in different contexts to justify this deduction.

2.3.3 Firm's Industry and Tax Compliance

The fact that tax non-compliance is not consistent across businesses is becoming more widely acknowledged by both academics and tax authorities. Opportunities, motivations, detection risk, and overall observed rates of tax avoidance and evasion and are all consistently influenced by industry membership.

One regional study focusing on tax audit on tax revenue of SMEs in Nigeria, Inegbedion and Okoye-Uzu (2024) emphasised that tax audits, even though they are costly sometimes (Wanjiru, 2019), have a significant and positive influence on tax compliance and on tax revenue. They concluded that industries which tend to be highly regulated (such as financial and insurance companies and manufacturers of excisable goods) are more likely to demonstrate greater tax compliance.

Using a survey research approach and focussing on Padang City's SMEs, Fauziati and Kassim (2018) investigated how an organization's industry affects tax compliance expenses. Using questionnaires, data from 92 respondents in Padang City was collected for the study. This study's chosen research design is a survey design. The questionnaires used a lickert scale, with responses ranging from strongly agree to strongly disagree. The industry variable was coded as 1 for the service sector, 2 for the retail sector and 3 for the manufacturing sector. The study concluded that tax compliance expenses are unaffected by age, size, or industry. Only risk management was found to have an impact on tax compliance costs. This was in contrast to other study findings, which showed a significant effect of the firm age, size and industry on tax compliance. The study has added to the corpus of knowledge on how firm characteristics impact tax compliance costs. However, the regression model should have included some control variables to increase the robustness of the model and the R-squared value. While Fauziati & Kassim (2018) concentrated on tax compliance costs and how business characteristics (size, age, and sector) impact these costs, the current study will examine the degree to which these characteristics impact tax non-compliance, as demonstrated by the payment made for an additional assessment.

Okpeyo et al. (2019) looked into what factors affected Ghanaian SMEs' tax compliance, using a sample of 100 small- and medium-sized taxpayers selected through the purposive sampling technique. Findings of the study disclosed that factors such as legal requirements, loan and access to government contracts, avoiding sanctioning, and industry-specific needs influence taxpayers' ability to file taxes and register for various tax obligations (Okpeyo et al., 2019). While the study offers significant insights, it is limited to SMEs, which usually tend to have fewer industry-specific regulations. In a related Ghanaian study examining tax gap and compliance burden among micro and small business which make up at least 90 percent of Ghana's information economy, Peprah et al. (2022) discovered that whereas some enterprises underpay their levies, others actually pay more than expected incurring the burden of evaders.

Musimenta et al. (2019), in their study on tax compliance in Uganda, discovered that financial services companies had high tax compliance rates. These researchers attribute this finding to national pride and trust in government and its legal systems, denoting them

as the key factors boosting tax morale among financial services firms in Uganda. Accordingly, national provide enhances cooperative behaviour, which into motivates financial services companies to pay their taxes to participate in the financing of public services (Musimenta et al., 2019). In a local study focusing on factors influencing value added tax compliance among construction firms in Kisumu County, Kenya, King'oina (2016) equally established that taxpayer attitudes and perception have a significant influence on tax compliance. While Musimenta et al. (2019) discovered a solid and positive link between actual compliance costs and tax compliance, King'oina (2016) ascertained that reduced tax compliance costs correlated with high levels of tax compliance. Typically, the effective imposition of fines and penalties motivates taxpayers to comply to their tax obligations; hence, improved tax compliance.

Abdul & Wang'ombe (2018) investigated Kenyan income tax compliance practices using 142 business taxpayers' survey data to create a structural equation model. The findings show that as behavioural control increases, tax compliance behaviour greatly improves, but when tax compliance costs rise, it dramatically decreases. However, the research focussed solely on small and medium enterprises and relied on a different statistical technique and different ways of operationalizing tax compliance, thus creating a methodological gap.

Another critical factor determining a company's tax compliance is the industry in which it operates (Bayer & Cowell, 2016). Available studies that have tried to examine the association between a firm's industry and tax compliance have yielded varying results.

Similarly, Azrina et al., (2014) conducted a study to identify the traits of businesses engaged in tax non-compliance. They made use of data from 2010 finalised corporate tax audited cases. 194 cases with RM 114.35M in tax audit adjustments made up the final sample after which they performed a multiple regression. According to the report, 83% of businesses found to be involved in tax evasion were domestically owned. Because foreigners are typically highly skilled professionals with technical knowledge of taxation and other matters, the very existence of foreign ownership in the form of investment discouraged tax cheating. Wholesale and retail trade accounted for the majority of tax-noncompliant businesses (71%), followed by real estate (25%) and manufacturing (20%).

Further, they revealed that industries (such as construction) that struggle with cash flow often falsify their financial reports. A random sample of 194 completed audit cases was used in the study; this is a sizable sample that should produce reliable results. Only 23.6% of corporate tax non-compliance can be explained by the independent variables in the regression, according to the R-square results, meaning that 76.4% of non-compliance was due to other factors e.g. corporate culture, executive behaviour and attitudes and the political environment. Therefore, more research on additional factors influencing tax non-compliance is warranted. The study supports the validity of the three components of the fraud triangle. The positive correlation between financial liquidity and tax fraud validates the pressure aspect, while the prevalence of non-compliance among retailers supports the opportunity aspect, since players in this sectors are not as strictly regulated as other sectors. The study also shows that a lack of knowledge about tax regulations and inadequate tax education are the driving forces behind tax non-compliance. Therefore, in order to boost voluntary compliance, tax authorities must find more ways to raise awareness, educate people, and streamline procedures. Factors such as the industry to which the companies belong are of interest to researchers and should be conducted in different contexts in order to determine whether there will be any consistency in the results.

Further, Ghani et al. (2012) examined whether industry affected corporate tax compliance in Malaysia, discovering that most tax-non-compliant firms were from the Wholesale and Retail Trade industries, followed by real estate and manufacturing firms in that order. In another study based on the South African context, Du Toit (2008) found that industry was a significant indicator of financial fraud statements, including tax non-compliance. According to DuToit (2008), financial fraud statements, including tax evasion varied across industries, with some industries demonstrating more acute levels of financial fraud than others. In order to ascertain whether businesses with a higher risk of financial statement fraud tended to exhibit particular traits, the study compiled evidence from numerous researchers worldwide. The 22 characteristics under consideration and the researchers' conclusions regarding their impact on fraudulent reporting were then put into a table. The study verified that certain traits can be used to determine a company's likelihood of financial statement fraud. Fraud is more common in businesses that are

subject to frequent and substantial change, like technology as well as sectors with intense business rivalry or competition. The results offer a practical template that any auditor can utilise as a valuable reference, since information from 69 research papers on fraudulent reporting is included in the study. This publication will help researchers who are interested in this field because it compiles literature and provides a comprehensive list of firm features along with an explanation of how each one could encourage fraudulent reporting. Rather than doing a study of the companies engaged in fraud, a wide range of authors' works were reviewed, compiling results from writers who had previously examined the behaviour of fraudulent companies.

From this study, we can conclude that when attempting to investigate firm characteristics, it should be remembered that human behaviour is complex and unpredictable and the systems that they interact with are far more open, volatile and arbitrary. Hence, human judgement must still be used since this field is not a precise science. Nonetheless, the study's conclusions will assist auditors in determining which areas to concentrate on during audits, allowing them to perform risk-based audits and save time. It also introduced new traits such as the geographic location and stock market performance that may be further investigated in other scenarios. While the results of the research are based on findings from worldwide literature, this paper will be conducted using information from tax audits conducted in Kenya.

In another study conducted in the USA, Beasley et al. (2010) examined cases of alleged financial reporting fraud from January 1998 to December 2007, as reported by the SEC. Their goal was to look into fraud in American public firms. According to the report, fraud happened in a wide range of industries, with computer hardware and software accounting for 20% of the companies and manufacturing for 20%. For certain fraud organisations, financial difficulty or distress that resulted in shortfalls of net operating cash flow served as an incentive to commit fraud. These results imply that efforts to stop, discourage, or identify fraud shouldn't be restricted to a specific sector of the economy. As a consequence of the research, aspects of the financial reporting process that could affect fraud prevention, detection, and deterrence have been better understood. As demonstrated in this study, certain firm characteristics (such size) could not be statistically significant in explaining financial statement fraud. The study focussed on American public companies

and hence the results may not be applicable to companies in other sectors and/or countries. The current study will concentrate on fraud in respect to disclosures made to tax authorities, whereas the study by Beasley et al. (2010) examined financial statement fraud in relation to disclosures made to investors, creditors, and management. In these circumstances, fraud would have different motivations, strategies, and forms.

While Du Toit (2008) found that firms in industries that are highly volatile and highly competitive have higher risks of financial statement fraud, Ghani et al. (2012) attributed the high levels of non-compliance in the wholesale and retail trade sector to the existence of opportunities for tax evasion, since firms in this sector are not highly regulated. Ghani et al. (2012) noted that using a self-assessment system without adequate monitoring encourages tax evasion in the wholesale and retail industry, which tends to be subject to fewer industry regulations when compared with other sectors, such as financial institutions. Moreover, Ghani et al. (2012) deduced that tax incentives available for manufacturing industries could be the one possible reason why this industry has higher levels of compliance.

Bayer and Cowell (2016) discovered that by enacting more sophisticated audit policies, tax authorities can counteract the informational advantage of corporations by taking into account the correlation between a company's stated profits and industry data - which suggests that businesses in the same industry typically report similar financial data. The study used data from European firms. Similarly, Hibbs and Piculescu (2010) investigated how the government affects businesses' predisposition to enter the informal economy in companies in the United States, establishing that firms lacking an inherent need for direct government support or institutional services are inclined to operate informally in the black market and evade taxes. On the other hand, firms that tend to rely on official institutional services (e.g. big players such as those in the manufacturing, financial and insurance industries) have a comparatively smaller appetite for tax evasion than those with little or no need for official institutional services. Similarly, sectors where transactions leave more paper trail (such as finance and insurance activities), were found to respond to monitoring more strongly, indicating a complementary relationship between monitoring efforts and the traceability of information.

Hansford and Hasseldine (2012) demonstrated that although value-added tax (VAT) compliance costs varied among industries in the UK, companies in the manufacturing, services and products sectors incurred the lowest compliance costs. Eichfelder and Schorn (2008) likewise discovered that the construction sector in Germany had lower tax compliance costs (including the time burden) than the services sector. According to the study, the industries that spent the most on outsourcing their tax activities were transportation, postal, and warehousing, followed by mining and gas, electricity, and water supply. Bayer and Cowell (2016) found that tax authorities can counteract the informational advantage of corporations by implementing more intelligent audit policies that consider the correlation between a company's stated profits and industry data, implying that firms in the same industry tend to report similar financial data, which would then affect their tax culture. Du Toit (2015) found that fraud is higher in volatile industries (e.g. technology) where changes are frequent and significant and in industries with high levels of competition. Hence, certain economic factors affect specific industries, and different industries may have varying motivations to develop tax evasion strategies. The studies assume that industry influences tax compliance costs, but a contextual gap exists as these studies were conducted in developed countries.

Kipkoech and Joel (2016) investigated tax compliance among limited Eldoret Municipality (Kenya) companies, uncovering that taxpayers differ in their opportunities to inflate costs and understate their income. Additionally, the researchers established that self-employment and income sources exempt from withholding taxes typically lead to higher chances of tax noncompliance (Kipkoech & Joel, 2016). Concentrating on the variables influencing small-scale manufacturing companies' income tax compliance in Nairobi, Kenya, Wanjiru (2019) elaborated on some of the reasons contributing to noncompliance. According to Wanjiru (2019), traders perceive filing procedures as tedious and undermining their ability to follow up with tax compliance. Wanjiru (2019) also identified the high costs of auditing services as another motive for noncompliance. Concurrently, the significance of tax incentives, compliance costs, and governance structures in influencing corporate activity was highlighted by Wangare (2024).

Barako et al. (2006) and Ahmad et al. (2011) attempted to examine the potential correlation between firm characteristics and tax compliance, deploying industry type as

the control variable. Barako et al. (2006) investigated the association between the level of voluntary disclosure and the following characteristics of firms listed on the NSE: size, leverage, types of audit company, profitability, liquidity, corporate governance features, and ownership structure. The industry type was solely used as a control variable. Ahmad et al. (2011) used industry type as a control variable to investigate the association between false financial reporting and business characteristics, such as size, ownership, and auditor type. Industry type was employed by Ahmad et al. (2011) as a control variable since some Malaysian industries are subjected to industry-specific regulations, which reduces their motivation to break tax regulations. Typically, Barako et al. (2006) and Ahmad et al. (2011) provide a helpful guide for conducting similar studies in different contexts /countries. The industries to which the firms belonged were only used as control variables, and thus, their effect on non-compliance is inconclusive from the studies (Barako et al., 2006; Ahmad et al., 2011). Since contextual factors could be in play, the above results can be said to be equivocal.

Dabla-Norris et al. (2017) discovered that tax compliance costs are often disproportionately higher for small and young businesses. Legge et al. (2022) explained why this is the case, offering insights into understanding the nature of taxation on large corporations, which are usually considered as operating in the big industries (such as manufacturers and insurance companies). According to Legge et al. (2022), whereas larger enterprises may be incurring a higher absolute cost in realising compliance duties than smaller ones, the relative burden of tax compliance is disproportionately higher for small- and medium-sized enterprises. This pattern shows that compliance costs are partly fixed costs and that big corporations – such as manufacturers and financial and insurance companies – can leverage economies of scale to manage tax compliance requirements. Nonetheless, Legge et al. (2022) fail to establish solid evidence that firm characteristics other than size have a significant influence on the relative mishaps of compliance.

Similarly, according to Verwaal & Cnossen (2002), Reekmans & Simoens (2010) and Slemrod & Venkatesh (2002), all found that the industry a small firm works in has little bearing on how much it costs to comply with external tax laws.

2.3.4 Moderating Effect of Liquidity Level in the Relationship between Firm Characteristics and Tax Compliance

Most previous studies that have attempted to examine the moderating effect of liquidity level on the relationship between firm characteristics and tax compliance concur that liquidity has a moderating function in the interactions between different firm-specific characteristics.

Airout et al. (2023) examined how liquidity moderated the relationship between accounting and advertising expenses and the bottom line of Jordanian SMEs, establishing that SMEs are particularly vulnerable to liquidity issues, which significantly impact their short-term spending. Short-term spending can, by extension, include tax expenses; hence, their findings on the moderating role of liquidity are still relevant. These findings align with those of Farhan et al. (2023), who examined how liquidity affected the relationship between sustainability expenses and a firm's specifics, including “market capitalisation, financial performance, age, size, total expenses, sales growth, and liquidity”. Using secondary data belonging to Indian manufacturing firms from 2015 to 2021, they found that a company's capacity to allocate greater funds towards environmental, social, and employee pay (sustainability expenses) is reinforced and enhanced by liquidity. The study used panel data with fixed-effect models. Their findings are relevant to the current research because if liquidity moderates sustainability expenses, it will likely have the same effect on other costs, including tax payables.

Furthermore, Farhan et al. (2023) looked into manufacturing companies, which comprise a sizable portion of the companies in the current research and used a wide range of data covering 2015 to 2021. It is necessary to look into the role of liquidity when different variables are at play since the variables examined differ from those in the current study. In support of findings by Farhan et al. (2013), Sudiyatno and Suwarti (2022) examined how liquidity affected the relationship between capital structure and company size and the performance of Indonesian manufacturing companies by acting as a moderator while using Return on Assets (ROA), a profitability ratio, to gauge company performance. Sudiyatno and Suwarti (2022) established that liquidity is a significant moderating factor, enhancing the connection between firm size and firm performance in large companies and diminishing the connection between capital structure and firm performance.

Febrianti and Saadah (2023) equally found that in Indonesia, liquidity (or financial constraints) has a moderating function on the relationship between stock liquidity and stock returns, with investors demanding higher returns for stocks with low liquidity and an even higher compensation where the investing firms were experiencing financial constraints. This study measured financial constraint as a company's inability to obtain funds from various sources of investment funding (i.e. the Debt-to-Equity Ratio or DER) rather than as working capital, as the present investigation suggests. This methodological discrepancy could reduce the findings' applicability since other dimensions of liquidity were left out. However, the findings demonstrate the role of liquidity in investment decisions, which go hand in hand with other financial decisions, such as whether or not to comply with tax regulations.

In a similar study involving panel data from sixteen non-financial corporates listed on the Pakistan Stock Exchange between 2006 and 2021, Ahmad and Ghouri (2023) found that tax structure has a positive but insignificant effect on a company's ability to expand financially and grow in Pakistan. Ahmad and Ghouri (2023) also uncovered that liquidity ratio moderates the relationship between asset turnover and a firm's performance, which implies that, by extension, liquidity ratio would also have a moderating effect when other firm specifics are considered. Additionally, the liquidity ratio is calculated using the same measures applied in the current investigation, making the findings more applicable to this research. However, the sample was quite small and may not capture the complexities of different corporates. Additionally, the researchers do not specify how they measured the corporate income tax for each firm.

In other studies, liquidity was used as an independent rather than moderating variable, and there were varying results. These include Nguyen et al. (2020), Ghani et al. (2012), Du Toit (2015), and Beasley et al. (2010), who all found a positive and significant relationship between liquidity and tax compliance. Nguyen et al. (2020) found that a firm in a stable financial state will have a high working capital/total assets index and a low probability of non-compliance with corporate income tax. In like manner, Ghani et al. (2012) found that financial liquidity was one of the leading indicators of tax non-compliance in Malaysia. Financial statement manipulation was joint among businesses with cash flow issues. The study validates the applicability of the fraud triangle's pressure, opportunity, and

rationalisation components. The positive relationship between non-compliance and financial liquidity confirms the pressure element.

Du Toit (2015) established poor cash flows as one of the eighteen characteristics associated with an increased likelihood of accounting fraud. High financial distress and poor liquidity increase the chances of fraud in a company's financial statements. Since tax liability is determined by entries made in the books of accounts, financial statement fraud is bound to impact tax compliance. However, the research covered financial statement fraud in general. Du Toit's (2008) discoveries are consistent with those of Beasley et al. (2010), who investigated fraud in public companies in the United States over ten years. In their study, Beasley et al. (2010) discovered that specific fraud organisations were incentivised to engage in fraudulent operations due to financial difficulty or distress, resulting in inadequate net operating cash flows. However, this study investigated financial statement fraud related to disclosures made to investors, creditors, and management. The current study will focus on fraud in disclosures made to tax authorities. The motives, methods and types of fraud in these situations would differ.

Within a regional setting, Onyango et al. (2023) investigated 52 companies listed on the Nairobi Securities Exchange to see if liquidity affected the relationship between a firm's dividend policy and its valuation between 2011 and 2020. Using operating cash flow ratio to calculate liquidity, Onyango et al. (2023) uncovered that the correlation between dividend policy and commercial worth was moderated by liquidity. Even though the variables differ from those in the current study, the results highlight the moderating impact that liquidity can have, which is the present study's focus. In support of their findings, Njoroge (2016) highlighted the absence of internal controls and pressure to meet set financial targets as the main reasons contributing to financial fraud statement in Kenyan SACCOs. Arguably, the failure to meet set financial targets usually indicates an inability to meet short-term financial obligations and a low liquidity ratio (Njoroge, 2016). The study also established dubious entries in financial statements and cash-flow issues as the key indicators of financial fraud in firms (Njoroge, 2016).

Other researchers have discovered results on the role of liquidity that differ from the conclusions above. For example, Akhmadi et al. (2023) examined how liquidity affected

the relationship between dividend policy and profitability, using data from all manufacturing companies listed on the IDX between 2008 and 2017. Akhmadi et al. (2023) found that the relationship between profitability and dividend policy is unaffected by liquidity. Much like the choice of a dividend policy, the decision of whether or not to honour tax obligations usually involves financial outlays. Similarly, Azrina et al. (2014) perused financial statement data obtained from Malaysian tax authorities for medium and small companies subjected to a tax compliance check, and discovered that tax non-compliance and the financial liquidity of SMCs were negatively correlated, showing that the impact of financial liquidity on tax noncompliance is insignificant. In support of these findings, Barako et al. (2006) ascertained that there was no discernible relationship between the amount of voluntary disclosure and a company's profitability or liquidity.

In summary, most existing research has not examined liquidity as a moderating factor concerning tax compliance but in the context of other financial metrics such as profitability and dividend policy, capital structure, and sustainability expenses. The current study will close a conceptual gap by examining the moderating effect of liquidity on the relationship between firm characteristics and tax compliance.

Table 1: Summary of the Literature and Research Gaps

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
1	Kevin Mulyono Teguh1 Ari Budi Kristanto	2020	“Firm characteristics and the tendency of fraudulent financial reporting” (Teguh & Kristanto, 2020).	Indonesia	Contextual gaps Conceptual gaps	The current study addresses contextual gaps by limiting its scope to the Kenyan context. It addresses conceptual gaps by clearly establishing the correlation between firm size and tax compliance rather than fraudulent reporting in general.
2	Norsiah Ahmad, Juahir Mohd-Nor and Norman Mohd-Saleh	2011	“Fraudulent Financial Reporting and Firms’ Characteristics: Evidence from Tax Audits” (Ahmad et al., 2011).	Kuala Lumpur, Malaysia.	Contextual gaps Conceptual gaps Methodological gaps	The current study investigates noncompliance rather than fraudulent reporting in general. It also investigates the age factor, which was not investigated in this research. Rather than a multiple regression model, the present study uses a panel regression model.

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
3	Nor Azrina Mohd Yusof Bee Wah Yap	2014	“Tax Non-Compliance: Evidence from Finalized Corporate Tax Audited Cases in 2010” (Azrina et al., 2014).	Malaysia	Contextual gaps Conceptual gaps Methodological gaps	The research examines the characteristics of firms involved in corporate tax non-compliance in Malaysia. It focuses on Kenyan firms and investigates the age factor, which was not investigated in this research. Rather than a multiple regression model, the present study uses a panel regression model with cross-sectional data.
4	Richard G. Brody, Christine Haynes, & Hector Mejia	2014	“Income Tax Return Scams and Identity Theft” (Brody et al., 2014).	New Mexico, USA	Contextual gaps Methodological gaps Conceptual gaps	The research was descriptive of the situation in the U.S. regarding tax return scams. My study empirically examines the association between firm characteristics and tax fraud in different settings (Kenya).

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
5	Mark J. Nigrini	2018	“The Patterns of the Numbers Used In Occupational Fraud Schemes” (Nigrini, 2018).	USA	Contextual gaps Methodological gaps Conceptual gaps	The research uses a statistical/data analysis approach to fraud detection by identifying patterns in the numbers. Statistical methods may not be foolproof, but they can be complemented by the ones in the research that provide empirical data on the general characteristics of firms involved in non-compliance.
6	Cindy Durtschi, Carl Pacini and William Hillison	2004	“The Effective Use of Benford’s Law To Assist In Detecting Fraud In Accounting Data” (Durtschi, 2004).	USA	Contextual gaps Methodological gaps Conceptual gaps	The main objective of the paper was to help auditors learn how to more effectively use Benford’s Law (and digital analysis in general) when trying to establish whether or not a data set contains fraud. The research did not cover

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						fraud in tax returns or the characteristics of the firms involved. Such fraud has its unique characteristics.
7	“Fernando Antonio Ignacio González”	2020	“Self-Reported Income Data: Are People Telling The Truth?” (González, 2020).	Argentina	Contextual gaps Methodological gaps Conceptual gaps	This study used household income data and capital declarations from public authorities to compare the results from fraud data with those from non-fraud data. My research uses data from firm returns where there was fraud.
8	“Anh Hong Viet Nguyen Hac Dinh Le Anh Hoang Le”	2020	“The Factors Affecting Corporate Income Tax Non-Compliance: A Case Study in Vietnam” (Nguyen et al., 2020).	Vietnam	Contextual gaps	The paper listed eight variables influencing Vietnam's noncompliance with corporate income tax, including size and business field. This study will investigate the same variables in the context of the Kenya

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						Revenue Authority's large taxpayers.
9	"Nor Azrina Mohd Yusof Lai Ming Ling Yap Bee Wah"	2014	"Tax non-compliance among SMCs in Malaysia: tax audit evidence" (Azrina et al., 2014).	Malaysia	Conceptual gaps	This study's primary focus was on the business conduct of large corporations rather than medium and small enterprises. It also covers several years (from 2016 to 2022), thus making the results more broadly applicable. The current study used audit data from a single year (2011).
11	Dana Hermanson, Joseph Carcello & Terry Neal	2010	"Fraudulent financial reporting: 1998-2007: An analysis of US public firms" (Hermanson et al., 2010).	U.S.A.	Conceptual gaps Contextual gaps	This study investigated financial statement fraud related to disclosures made to investors, creditors, and management. The current research focuses on fraud concerning disclosures made to tax authorities. The motives,

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						methods and types of fraud in these situations would differ. This study also investigated fraud in general rather than non-compliance to tax regulations.
12	Yuehua Xu, Lin Zhang, Honghui Chen	2018	“Board age and corporate financial fraud: An interactionist view” (Xu et al., 2018).	China	Conceptual gaps Contextual gaps	This research investigates the age of the individual board director rather than the firm’s age. Since it is expected that older board directors typically work for older organisations, these results are relevant to the investigation and confirm the hypothesis in this research.
13	A. Scott Fleming, Dana Hermanson, Mary-Jo Kranacher, Richard Riley	2016	“Financial Reporting Fraud: Public and Private Firms” (Fleming et al., 2016).	USA	Conceptual gaps Contextual gaps	This research compared the fraud profiles of private firms with those of public firms in the USA. The current study focuses on Kenyan firms and looks into

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						non-compliance with tax laws rather than fraud in general.
14	Jinghui Sun, Pamela Kent, Baolei Qi, Jiwei Wang	2019	“Chief financial officer demographic characteristics and fraudulent financial reporting in China” (Sun et al., 2019).	China	Conceptual gaps Contextual gaps	This research did not investigate fraud carried out to reduce tax liability but fraud perpetrated to portray a more favourable financial position to investors and financiers. Nevertheless, because the results show a connection between age and fraud, they are pertinent to the current investigation.
15	Yu, Jingyuan	2022	“Tax structure and corporate tax compliance: Evidence from China”	China	Conceptual gaps Contextual gaps Methodological gaps	The current study addresses these gaps by examining and establishing the correlation between firm characteristics (age and size) and tax compliance.
16	Ozdemir	2017	“An examination of daughter succession	Turkey	Conceptual gaps	The current study addresses these gaps in research by

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			in Turkish family-owned businesses: Gendered norms, cultural influence and leadership challenges” (Ozdemir, 2017).		Contextual gaps Methodological gaps	examining and establishing the relationship between firm ownership type or structure and tax compliance in the Kenyan context.
17	Matarirano, Makina, and Chiloane-Tsoka	2019	“Tax compliance costs and small business performance: Evidence from the South African construction industry” (Matarirano, 2019).	South Africa	Conceptual gaps Contextual gaps Methodological gaps	The current study closes these gaps in research by assessing and establishing the relationship between firm ownership type or structure and tax compliance in the Kenyan context.
18	“Rana M. Airout, Qasim A. Alawaqleh, Nashat A.	2023	“The moderating role of liquidity in the relationship between	Jordan	Conceptual gaps Contextual gaps	The present investigation focuses on large taxpayers in Kenya and studies their tax

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
	Almasria, Fahd Alduais, and Sonia Q. Alawaqleh”		the expenditures and financial performance of SMEs” (Airout, 2023).			compliance behaviour, thus addressing a contextual and conceptual gap. However, the study used a sample of only 200 SMEs in Jordan, which may make it difficult to generalise its findings to other contexts.
19	“Farhan, N. H., Almaqtari, F. A., Hazaea, S. A., & Al-Ahdal, W. M.”	2023	“The moderating effect of liquidity on the relationship between sustainability and firms' specifics” (Farhan et al., 2023).	India	Conceptual gaps Contextual gaps	The present investigation looks into the role of liquidity when different variables are involved since the dependent and independent variables examined differ from those in the current study.
20	“Sudiyatno, B., & Suwarti, T.”	2022	“The Role of Liquidity in Determining Firm Performance”	Indonesia	Conceptual gaps Contextual gaps	The research used purposive sampling and multiple regression to collect and analyse data from 123 manufacturing

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			(Sudiyatno & Suwarti, 2022).			companies for 2019-2021. The present investigation will use a panel regression model and examine the role of liquidity when different variables are at play
21	“Febrianti, V. D., & Saadah, S.”	2023	“Stock liquidity and stock returns: the moderating role of financial constraints” (Febrianti & Saadah, 2023).	Indonesia	Conceptual gaps Contextual gaps	The study measured financial constraint as a company's inability to obtain funds from various sources of investment funding (i.e. the Debt-to-Equity Ratio or DER) rather than as working capital, as the present investigation suggests. The present investigation will analyse the role of liquidity when different variables are at play.
22	“Ahmad N., Shah F. N., Ijaz F., & Ghouri M. N.”	2023	“Corporate income tax, asset turnover	Pakistan	Conceptual gaps Contextual gaps	The present investigation will analyse the role of liquidity when

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			and Tobin's Q as firm performance in Pakistan: Moderating role of liquidity ratio" (Ahmad & Ghouri, 2023)			different variables are at play and in a local context.
23	Akhmadi, A., Nurhayati, E., & Rahmawati, A.	2023	"Measuring Liquidity as a Moderating Variable" (Akhmadi et al., 2023).	Indonesia	Conceptual gaps Contextual gaps	The methodology employed was a moderated regression analysis. The current study fills the conceptual gap by investigating the moderating effect of liquidity on a different set of variables and in a different context.
24	Chytis E., Tasios S., Georgopoulo I., & Hortis, Z.	2019	"The relationship between tax avoidance, firm characteristics and corporate	Greece	Contextual gaps	The study's context is a more developed nation. If conducted in a developing nation, the findings may differ.

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			governance” (Chytis et al., 2019).			
25	Ali, S., Rangone, A., & Farooq, M.	2022	“Corporate Taxation and Firm-Specific Determinants of Capital Structure” (Ali et al., 2022).	UK and US Multinational Firms.	Conceptual gaps Contextual gaps	The current study, rather than focusing on the capital structure (long-term and short-term debt) of multinational firms in the energy sector as the dependent variable, focuses on tax compliance determinants, thus filling a conceptual gap. It will also fill a contextual gap.
26	“Pfaffermayr, M., Stockl, M., & Winner, H.”	2013	“Capital structure, corporate taxation and firm age” (Pfaffermayr, 2013).	35 European nations	Contextual gaps	This study examined the effect of firm age on Kenya’s corporate tax compliance.

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
27	“Annuar, H. A., Salihu, I. A., & Obid, S. N. S.”	2014	“Corporate ownership, governance and tax avoidance: An interactive effect” (Annuar et al., 2014).	Malaysia	Conceptual gaps Contextual gaps	The study investigates tax avoidance, which is legal. The current study will investigate non-compliance/tax fraud in Kenya, thus filling a conceptual and contextual gap.
28	Alkurdi and Mardini	2020	“The impact of ownership structure and the board of directors’ composition on tax avoidance strategies” (Alkurdi & Mardini, 2020),	Jordan	Contextual gaps Methodological gaps	The current study determines how ownership structure affects Kenya’s tax compliance. The method used to measure tax compliance differs from that used in the previous study, where tax avoidance was calculated as “Effective Tax Rate,” which is “total tax expense divided by pre-tax income.”
29	“Hassan, N., Masum, M. H., & Sarkar, J. B.”	2022	“Ownership structure and corporate tax	Bangladesh	Conceptual gaps	The current study will investigate non-compliance/tax

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			avoidance” (Hassan et al., 2022).		Contextual gaps	fraud rather than tax avoidance in Kenya, thus filling a conceptual and contextual gap.
30	Fauziati and Kassim	2018	“The effect of business characteristics on tax compliance costs” (Fauziati & Kassim, 2018)	Indonesia	Conceptual & Contextual gaps	This study's dependent variable, tax compliance expenses, creates a conceptual gap.
31	Kartikaningdyah	2020	“The effect of firm size, ROA and executive character on tax avoidance” (Kartikaningdyah, 2020).	Indonesia	Methodological & Contextual gaps	The current study calculates a firm's size using its total sales (rather than total assets). Firms from all sectors in Kenya (not just the manufacturing sector) were included, thus presenting conceptual and contextual gaps.
32	Sopiyana	2022	“The effect of leverage and firm size on tax avoidance with	Indonesia	Contextual gaps Conceptual gaps	The present study addresses a contextual vacuum by examining corporations from

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			profitability as moderating variable” (Sopiyana, 2022).			Kenya’s large taxpayers, as the previous analysis was limited to Indonesian construction firms. This study's dependent variable, tax avoidance, creates a conceptual gap as the present study investigates noncompliance.
33	Indriani and Juniarti	2020	“The Influence of Firm Size, Firm Age, Sales Growth, and Profitability on Tax Avoidance” (Indriani & Juniarti, 2020).	Indonesia	Contextual gaps	The present study addresses a contextual gap by examining corporations from Kenya’s large taxpayers. The previous analysis was limited to listed pharmaceutical sub-sector firms in Indonesia. This study's dependent variable, tax

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						avoidance, creates a conceptual gap.
34	“Bachas, P., Brockmeyer, A., Dom, R., & Semelet, C.”	2023	“Effective tax rates and firm size” (Bachas et al., 2023).	Thirteen developing nations in Eastern Europe, Latin America, and Africa.	Contextual & Methodological gaps	The research aggregates data from 13 countries, excluding Kenya. The current study will focus on Kenya. The research calculates the Effective Tax Rate (ETR) as the Tax Expenditure/Net Profit, which may not be comparable across countries. The current research calculates the tax compliance rate based on the additional assessment value.
35	Du Toit	2015	“Characteristics of Firms with a Higher Risk of Financial Statement Fraud: A Survey of the	South Africa (Pretoria)	Contextual, Methodological & Conceptual gaps	The research covered accounting fraud in general. The investigation focuses specifically on tax fraud and will study the relationship between

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			Literature” (Du Toit, 2015).			tax fraud and several of its characteristics. The research's conclusions have been constructed from findings from international literature. This paper was conducted using information from tax audits conducted in Kenya.
36	Khadijat Adenola Yahaya and Kabir Yusuf	2020	“The Impact of Firm Characteristics on Aggressive Tax Avoidance in Nigerian Listed Insurance Firms” (Yahaya & Yusuf, 2020).	Nigeria	Contextual gaps Methodological gaps Conceptual gaps	The research focused on tax mitigation strategies in Nigerian insurance firms. My research will focus on tax evasion (rather than tax avoidance) in Kenyan firms in the insurance industry and other industries.
37	Ogunfunmilayo	2020	“Determinants of Voluntary Tax Compliance Among	Nigeria	Conceptual gaps Contextual gaps	The current study sought to close these gaps in research by assessing and establishing the

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
			Small and Medium Scale Enterprise (SME) Owners in Oyo State, Nigeria” (Ogunfunmilayo, 2020).		Methodological gaps	correlation between firm ownership type or structure and tax compliance among large taxpayers (rather than medium and small) in the Kenyan environment.
38	Kimea, A. J., Mkhize, M., & Maama, H.	2023	“Firm-specific Determinants of Aggressive Tax Management among East African Firms”.	East African Firms	Conceptual gaps	This study's dependent variable, tax aggressiveness (measured by the effective tax rate), creates a conceptual gap. The present study investigates the noncompliance rate using the value of additional assessments raised.
39	Mascagni and Mengistu	2019	“Effective tax rates and firm size in Ethiopia” (Mascagni & Mengistu, 2019).	Ethiopia	Conceptual gaps Contextual gaps	The current study analysed the noncompliance rate by calculating the value of additional assessments raised. In this study, the dependent

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						variable, tax aggression is determined by the effective tax rate, thus creating a conceptual gap.
40	Salaudeen and Abdulwahab	2022	“Corporate Governance Mechanism and Tax Compliance” (Salaudeen & Abdulwahab, 2022).	Nigeria	Contextual gaps	The study used 79 listed firms in Nigeria. The current study used data from large corporates in Kenya.
41	Salaudeen and Ejeh	2018	“Equity ownership structure and corporate tax aggressiveness” (Salaudeen & Ejeh, 2018)	Nigeria	Conceptual gaps Contextual gaps	This study's dependent variable, tax aggressiveness (measured by the effective tax rate), creates a conceptual gap. The present study investigates the noncompliance rate using the

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						value of additional assessments raised.
42	“Merima Ali, Odd-Helge Fjeldstad and Ingrid Hoem Sjørksen”	2013	“Factors Affecting Tax Compliant Attitude in Africa: Evidence from Kenya, Uganda, Tanzania And South Africa” (Ali et al., 2013)	Kenya, Uganda, Tanzania and South Africa	Contextual gaps Conceptual gaps	The research was an empirical analysis of the factors determining citizens’ non-compliance behaviour using attitude and perception data from the four countries. The present study investigated firms rather than specific individuals.
43	Mumo S.M.	2019	“Firm characteristics and value-added tax compliance on construction firms in Kenya: a survey of Starehe sub-county, Nairobi Kenya” (Mumo, 2019).	Kenya	Conceptual gaps	This study's dependent variable, VAT compliance, creates a conceptual gap. The present study investigates corporate tax compliance rates among large taxpayers.

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
44	Otieno	2014	“The relationship between ownership structure and tax avoidance of firms listed at the Nairobi Securities Exchange” (Otieno, 2014).	Kenya	Conceptual gaps	This study's dependent variable, tax avoidance (measured by the effective tax rate), creates a conceptual gap. The present study investigates the noncompliance rate.
45	Abdul and Wang’ombe	2018	“Income Tax Compliance Behaviour in Kenya: An Application of Structural Equation Modelling” (Abdul & Wang’ombe, 2018)	Kenya	Methodological Gap	Unlike the present study, quantitative data analysis uses structural equation modelling. The current research used panel data regression to analyse data. In this paper, the independent variables included: tax system variables (tax compliance costs, fairness, complexity, and international compatibility) and behavioural factors

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
						(i.e. Perceived behavioural control, Attitude and subjective norms). The variables size, age, sector and legal structure were used as control variables rather than independent variables.
46	Maxwell Onyango (Dr.), Winnie Nyamute (PhD), Dr Joshua Wanjare	2023	“Effect of Liquidity on the relationship between Dividend Policy and Value of firms Listed at the Nairobi Securities Exchange. African Development Finance Journal” (Onyango et al., 2023)	Kenya	Methodological gaps Conceptual gaps	The operating cash flow ratio was used to calculate liquidity, presenting a methodological gap. The independent and dependent variables are different from those in the current study.

SN	Authors	Year	Topic	Place of Research	Types of Research Gaps	How my study fills the gaps
47	Kamau Evans Njoroge	2016	“An investigation into the causes and characteristics of fraud in Kenyan SACCOs and whether Benford’s law can be used to detect fraud in the accounting data” (Kamau, 2016).	Kenya	Contextual gaps Methodological gaps Conceptual gaps	In this article, the author investigated fraud detection in the accounting data of Kenyan SACCOs. My research aimed to investigate tax fraud in the accounting data submitted in KRA tax returns. The firms belonged to various industries and would not be limited to SACCOs.
48	Dulacha Barako, Phil Hancock and Izan”	2006	“Factors Influencing Voluntary Corporate Disclosures by Kenyan Firms” (Barako et al., 2006).	Kenya	Methodological gaps Conceptual gaps	The research focused on disclosures to investors and shareholders at the Nairobi Stock Exchange. The current study examines disclosures made to tax authorities rather than disclosures in general.

Source: Author (2024)

2.4 Conceptual Framework

The agency theory provides a starting point for comprehending tax compliance and non-compliance practices (dependent variable) and offers a basis/foundation for comprehending the behaviour of tax payers in general. The economic deterrence theory anchors the independent variables (firm characteristics) by studying the possible deterring or incentivizing factors affecting tax compliance.

This research adopted the methodology used in similar studies such as those by Nguyen et al., 2020; Azrina et al., 2014; Ahmad et al., 2011; Ghani et al., 2012; Teguh & Kristanto, 2020 and Ahmad et al., 2011, where the tax audit adjustment was employed as a proxy for corporate tax non-compliance (dependent variable) and firm characteristics were used as independent variables.

In this study, the profitability level was employed as the control variable. Ahmad and Ghouri (2023) and Onyango et al. (2023) who both used panel data from non-financial corporations, measured the liquidity ratio using the metrics used in the present study, thus making their findings more relevant to this research.

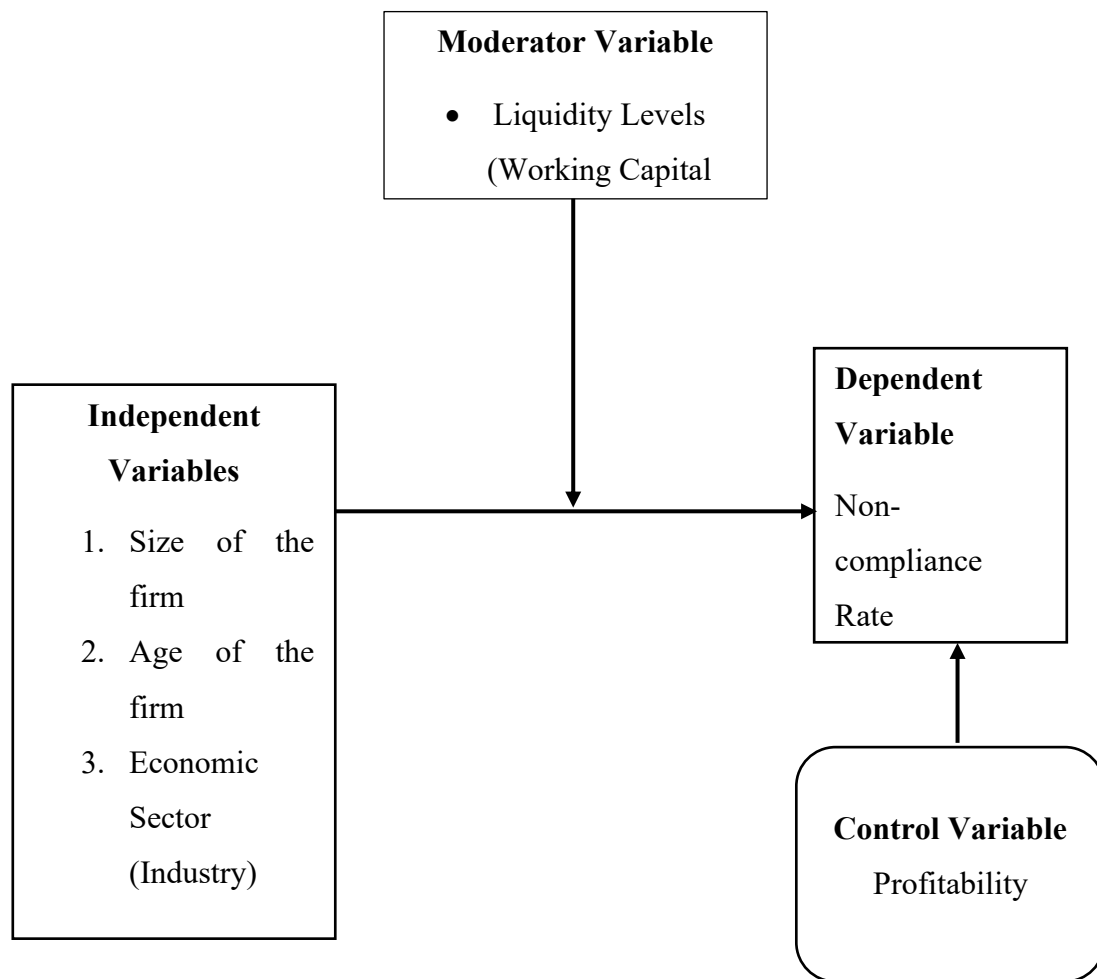
Youde and Lim (2019) describe tax compliance as adherence to tax laws and regulations by registering, filing, and paying taxes on time and accurately. It also implies the willingness of a taxpayer to adhere to existing tax laws, file tax returns, and pay due taxes within the specified timeframe.

Burmann et al. (2007) described industry as a group of businesses or companies that produce or supply similar goods or services, and have homogenous sources of income. Porter (1979) offered a more elaborate definition, describing industry as a “group of competitor companies producing substitute products or services that are close enough for the behaviour of any firm to affect each of the others either directly or indirectly. The industry variable in this study comprises Kenya’s big four sectors, including (1) manufacturing, (2) financial and insurance services, (3) construction, and (4) wholesale and retail trade. Primarily, the study seeks to investigate if firm-specific industry has an influence on tax non-compliance in an environment moderate by liquidity levels.

Banks (2014) defines liquidity as the efficiency or ease of converting an asset or security into ready cash without affecting its market price. Nam and Tuyen (2024) explain liquidity

levels as the readiness of cash to meet short-term obligations. This cash could be made available by buying or selling security assets. A liquidity ratio below 1.0 means that a firm does not have adequate current assets to its meet short-term liabilities. However, a liquidity ratio of 1.0 or higher shows that a company is in the safe zone and has sufficient current assets or securities to address its short-term liabilities. Subsequently, a liquidity ratio of 2.0 or greater is an indicator of a firm with a strong financial position and demonstrates that an entity certainly has an outstanding management of underlying debts.

Figure 2: Conceptual Framework



Source: Author (2024)

2.5 Operationalization of the Variables

This section explains how the raw data was transformed into the final data set, i.e. how the different constructs will be measured.

Table 2: Operationalisation of Variables

Variable	Variable Type	Definition	Measurement scale	Indicator	Supporting Literature	Supporting theories
Non-Compliance Rate	Dependent Variable	This is the tax gap, or the additional levies and penalties taxpayers must pay after the tax audit.	Percentage; Ratio scale (quantitative with a true zero)	Uncontested Additional assessment (i.e. actual amount paid rather than objected to) divided by the Gross Turnover	Ghani et al. (2012)	The Agency Theory
Company size	Independent Variable	The scale on which a firm operates.	Ratio scale (quantitative with a true zero)	The logarithm of Total Sales;	Khadijat Adenola Yahaya and Kabir Yusuf (2020)	The Agency Theory
Company age	Independent Variable	The duration in which a firm is in existence	Ratio scale (quantitative with a true zero)	Natural Log of the Firm's Age in Years;	Ozdemir (2017)	The Agency Theory

Industry (Economic Sector)	Independent Variable	Part of the economy is where a particular firm's activity is undertaken.	Nominal (dichotomous binary scale 0 or 1)	Manufacturers, Wholesale & retail trade, financial and insurance activities, and Construction.	Ghani et al. (2012) Du Toit (2008)	The Agency Theory
Liquidity Level (Working Capital Ratio)	Moderating Variable	Ease with which an asset or collateral can be converted into cash without losing its monetary value.	Percentage; Ratio scale (quantitative with a true zero)	$\text{Current Assets} \div \text{Current Liabilities}$	Norsiah Ahmad, Juahir Mohd-Nor and Norman Mohd-Saleh (2004)	The Economic Deterrence Models
Profitability	Control Variable	The profits recorded or reported on a particular year.	Ratio scale (quantitative with a true zero)	The logarithm of gross profit	Indriani and Juniarti (2020)	The Economic Deterrence Models

2.6 Chapter Summary

This chapter takes an in-depth look at the academic studies and scholarly articles that have been done in the past about the current topic of the study. It begins by delving into the theoretical review, focusing mainly on three tax compliance theories (economic deterrence models and agency model) that establish the theoretical framework and standpoint of the current study. The chapter also focuses on pointing out the severe gaps in knowledge through a thoroughly conducted empirical review to find a justification for the present study. The study objectives and the research questions guide the empirical evaluation of the literature in chapter two. The chapter also includes a summary table summarising the empirical literature and gaps in past studies, clearly explaining the current research's justification.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is an organised strategy to research and adequately tackle the research questions. It describes the procedures, instruments, and methods utilised in data collection and analysis, guaranteeing the study's validity, dependability, and generalizability. This chapter outlines the approach used to examine the relationship between business attributes and compliance with tax laws. It explains the study philosophy, research design, target demographic and sample, and the data collection and analysis methodology. Finally, it talks about the ethical and quality aspects of the research.

3.2 Research Philosophy

The research is grounded in a philosophy known as Positivism. Positivism employs an impartial methodology that which the observer does not influence to study of the world (Mukherji & Albon, 2014). According to positivism, facts, rather than feelings, impressions, or sentiments, make up reality (Mukherji & Albon, 2014; Park et al., 2020).

The research is quantitative. Quantitative research derives from Positivism, and like its underpinning philosophy, it attempts to reduce the researcher's influence on the outcome and is based on statistical analysis (Mukherji & Albon, 2014; Park et al., 2020). Quantitative research uses hypothesis testing, where the researcher begins by formulating a theory and then proves or disproves it using actual data (Mukherji & Albon, 2014; Park et al., 2020). This is known as deductive reasoning, which proceeds from a general idea to specific conclusions (Mukherji & Albon, 2014; Park et al., 2020). This research is a statistical study based on patterns and trends observed in the past that demonstrate how strongly the dependent and independent variables are correlated, allowing for the formation of specific conclusions. Rather than focusing on depth, statistical studies aim for breadth.

The research strategy used in this study is correlational, meaning that the degree of association (or relationship) between two or more variables or sets of scores was described

and measured using the correlation statistical test. Rather than focusing on causality, the research examines the relationship between different corporate features and compliance with tax laws.

The study incorporates aspects of longitudinal and cross-sectional designs, gathering information from many tax returns submitted between 2016 and 2022 instead of focusing on a small number of people or businesses over an extended period.

3.3 Research Design

Hilsen and Olsen (2021) define a research design as an accurate, objective, and procedural plan adopted by the researcher to answer research questions validly. It is typically the overall strategy that the researcher chooses to incorporate the various elements of the study coherently and logically to ensure they effectively and sufficiently address the underlying research problem. It clarifies the blueprint for collecting, measuring, and analysing data.

This study leverages the explanatory research design. In an exploratory study, the main objective is to clarify how variables relate to one another, thus shedding light on these phenomena by elucidating the underlying mechanics and processes that influence the variables. Explanatory designs therefore express relationships between the constructs of requirements and components (Baskerville & Pries-Heje, 2010).

3.4 Population and Sampling

The target demographic was the big four industries: construction, financial and insurance activities, manufacturing, and wholesale and retail in Kenya. The sample was retrieved from the Large Taxpayers Office with an uncontested tax adjustment for corporation tax from 2016 to 2022. The tax non-compliance rate is measured as the amount paid by the company following an additional assessment i.e. it is uncontested and therefore paid and this payment reflects on the company's iTax ledger. From the retrieved data across the study period (2016 to 2022), 673 firms in the big four industries filed their tax returns and had uncontested additional assessments. Therefore, the sample size for the study was obtained from the 673 firms (sample population) using Slovin's formula (see below).

Slovin's Formula (Ryan, 2013)

$$n = \frac{N}{1+N(e^2)}$$

Where;

n = Sample Size,

N = Population Size, and

e = Margin of Error, which is 0.05 since the study maintains a confidence level of 95 percent.

Using Slovin's Formula, an ideal sample size can be obtained.

$$n = \frac{673}{1+673 (0.05^2)}$$

From the above formula, a sample of 251 unique firms was selected purposively, with those having observations for at least 2 years being considered and included in the study. The research utilised accounting data from tax returns submitted to KRA's Large Taxpayers' Office between 2016 and 2022 since 2016 is when iTax became a requirement, enabling taxpayers to file tax returns online, generate tax compliance certificates, register and make payments, and check their ledger accounts, among other functionalities, thus increasing efficiency, accuracy and access to tax-related data, and 2022 was selected as the end date since there were no additional assessments in 2023. The research was limited to firms that experienced an increase in taxes, which the firms consented to cover, leaving out the assessments that were the subject of an objection or appeal that resulted in the assessments being withdrawn.

3.5 Data Collection Methods

The study used anonymised secondary data from tax returns for corporation tax submitted to KRA. This data was extracted from income statements and statements of financial position. The payment data on actual amounts paid was extracted from the firm's general

ledger in iTax. The data variables included line items from the income statements, statements of financial position, iTax ledger, and Taxpayer registration details.

3.5.1 Data Analysis

Data was analysed using EViews. To ensure that the data is sizeable and statistically significant, the research used data from 251 firms in Kenya's big four industries (construction, financial and insurance activities, manufacturing, and wholesale and retail).

The regression equation applied is as follows:

$$\text{LogTaxNoncomplianceRate} = \alpha_0 + \alpha_1 (\text{LogSize})_{i,t} + \alpha_2 (\text{LogAge})_{i,t} + \alpha_4 (\text{Manf})_{i,t} + \alpha_5 (\text{Wholes})_{i,t} + \alpha_6 (\text{Fin})_{i,t} + \alpha_7 (\text{Cons})_{i,t} + \alpha_8 \text{LogProfitability}_{i,t} + e_{i,t}$$

Where:

$\text{Log_TaxNoncomplianceRate}$ is the dependent variable, non-compliance rate, measured by the logarithm of the non-compliance rate for company i in year t ;

α_0 is the intercept or constant;

$\alpha_1 \text{LogSize}$ is the dummy for firm size, measured by the logarithm of total sales;

$\alpha_2 \text{LogAge}$ is the dummy for the firm age, measured by Natural Log of Age (Current Year - Business Registration Date);

$\alpha_4 \text{Manf.}$ is the dummy for the manufacturing industry;

$\alpha_5 \text{Wholes.}$ is the dummy for the wholesale and retail trade industry;

$\alpha_6 \text{Fin.}$ is the dummy for the financial & insurance activities industry;

$\alpha_7 \text{Cons.}$ is the dummy for the Construction industry;

$\alpha_8 \text{LogProfitability}_{i,t}$ is the logarithm for profitability, used as a control variable;

$e_{i,t}$ is the error term

Further, for moderation analysis, the following regression equation was adopted:

$$\text{Tax noncompliance Rate} = \alpha_0 + \alpha_1(\text{Size})_{i,t} + \alpha_2(\text{Age})_{i,t} + \alpha_3(\text{Manf})_{i,t} + \alpha_4(\text{Wholes})_{i,t} + \alpha_5(\text{Fin})_{i,t} + \alpha_6(\text{Cons})_{i,t} + \alpha_7(\text{LiqL})_{i,t} + \alpha_8(\text{LiqL*Size})_{i,t} + \alpha_9(\text{LiqL*Age})_{i,t} + \alpha_{10}(\text{LiqL*Finance})_{i,t} + \alpha_{11}(\text{LiqL*Manufacturing})_{i,t} + \alpha_{12}(\text{LiqL*Construction})_{i,t} + \alpha_{13}(\text{LiqL*Wholesale\&Retail})_{i,t} + \alpha_{14}(\text{Profitability})_{i,t} + e_{i,t}$$

Where;

LiqL*Size is the interaction term of size

LiqL*Age is the interaction term of age

LiqL*Finance the interaction term of the Finance industry

LiqL*Manufacturing is the interaction term of the manufacturing industry

LiqL*Construction is the interaction term of the Construction sector

LiqL*Wholesale&Retail is the interaction term of the Wholesale and Retail Trade sector

3.5.2 Diagnostic Tests

To address errors in data during analysis, the study indulged several diagnostic tests to assess and address problems associated with stationarity and cointegration. This scheduled activity aims to rectify any inaccuracies that may have happened in the data throughout the analysis process.

3.5.2.1 Stationarity Test

The “Stationarity Test” function tests whether panel data has a stationarity property, i.e., that statistical properties like the expected values, variances, error means, and moments do not change with time (Koutsoyiannis & Montanari, 2015). It investigates the possibility of significant alterations (known as “structural breaks”) throughout the time that could impact the relationship between the parameters being investigated. The Augmented Dickey-Fuller (ADF) test was utilised in this study's stationarity test. The null hypothesis for this test is that there is a unit root in each panel or time series (Budiono &

Purba, 2022). A time series with a unit root is non-stationary, and its properties can change over time. If a unit root is found, the researcher must modify the time series to ensure stationarity before performing more analysis. Analysts do this by differencing the series, which is a procedure that entails deducting the series' present value from its prior value.

3.5.2.2 Hausman Test

In Statistics, fixed-effects (FE) refer to entity-specific effects, which vary across different contexts but remain unchanged across observations inside each context (Zulfikar & STp, 2018). They may impact how the dependent and independent variables under investigation relate. They refer to distinct traits inherent to each context (entity-specific) but remain constant across observations within each context, hence the term “fixed-effect”. A statistical model with fixed effects allows the researcher to control the specified FE factors that may impact the outcome while separating the effect of the independent variables on the outcome. FE captures the distinctive characteristics and elements that are present in every circumstance or context (such as an industry or economic sector) yet stay consistent over observations (individual businesses) within each context (industry). Dummy variables, also known as fixed effect variables, can be incorporated into the equation during data analysis to capture all the distinctive features of each context that may have an impact on the dependent variable but are maintained constant throughout observations in each context.

Conversely, random effects consider the variation and heterogeneity across many participants within a broader population (Plümper & Troeger, 2019). They enable researchers to consider unobserved variables that differ amongst respondents in a data set. Random effects record variations in the results that are not apparent and that the variables being examined cannot account for. In contrast to FE models, they yield higher efficiency, precision, and more broadly applicable results since they capture all unobserved components in a general approach. On the other hand, unlike FE models, which offer a more thorough interpretation of specific elements, the generalisation required in RE

models leads to a more constrained interpretation of entity-specific characteristics (Zulfikar & STp, 2018).

A specification test determines if a model is suitable for its intended population. The Hausman test is a specification test based on the difference between the fixed effects (FE) and random effects (RE) estimators (Baltagi, 2014), thus assisting in the selection of the model that best fits the data. The Hausman test is conducted by obtaining the coefficients for the FE and RE models (β_{FE} and β_{RE}) and then calculating the test statistic H, which is based on the difference between β_{FE} and β_{RE} . The test statistic H has a chi-squared distribution, with degrees of freedom equal to the number of tested coefficients. The null hypothesis is that the Random effects (RE) are more appropriate, while Fixed effects (FE) are preferred under the alternative hypothesis.

3.5.2.3 Heteroskedasticity

Presented in 1979 by Trevor Breusch and Adrian Pagan, the Breusch-Pagan-Godfrey test was used in the current study to test for heteroscedasticity (Wooldridge, 2012; Hyndman et al., 2018). Heteroscedasticity violates the assumption of constant variance or homoscedasticity, emphasising the assumptions about residuals/errors in panel regression having the same but unknown variance. By this test, if the null hypothesis of homoscedasticity is rejected (p-value < 0.05), there are unequal error variances across the observations. Such a situation demands robust standard errors and limits heteroscedasticity's occurrence where strong p-values are obtained for hypothesis testing (Wooldridge, 2012; Hyndman et al., 2018).

3.5.2.4 Chow Test for Fixed Effects

This test is conducted to determine whether the regression coefficients are the same for two different groups or time periods (Lee, 2008). A Chow Test is conducted to choose between a common effect model (CEM) and fixed effect model (FEM). The null hypothesis for this test is that CEM is appropriate, implying that regression coefficients

are the same across groups or time periods. The alternative hypothesis is that FEM is appropriate, suggesting that at least one regression coefficient varies across the group.

3.5.2.5 Pooled OLS Choice

Pooled OLS (Ordinary Least Squares) is conducted on the panel dataset to test whether all the entities in the dataset are considered to have the same underlying characteristics (Ceesay & Moussa, 2022). It combines cross-sectional and time-series data into one basic regression model without giving importance to entity-specific or context-specific differences. It also establishes the extent to which the variation in the dependent variable is explained by the model.

3.5.2.6 Normality Test

A normality test is conducted on the panel dataset to assess if it follows a normal distribution.

3.5.2.6 Serial Autocorrelation

Serial autocorrelation or correlation is conducted on the panel dataset to assess whether the datasets or error terms are correlated with preceding values. It is essential to understand whether the datasets violate the assumption of independent errors in regression as this could lead to inaccurate standard errors, biased estimates, and misleading inferences. The Durbin-Watson statistic is used to determine the presence or absence of serial autocorrelation the panel dataset.

3.6 Research Quality

The reliability and validity of the research instruments were guaranteed by ensuring the following:

3.6.1 Reliability of Research Instrument

The study used a sizeable data set of 251 firms to guarantee the accuracy of the findings and ensure that the results are consistent. In certain instances where the statistics are suspected to be incorrect, such as businesses with zero values for total assets, the data source was asked to cross-reference their data with the accurate taxpayer information in iTax. This further examination was done to guarantee the accuracy of the data. If necessary, these were excluded from the sample.

Entrusting the collection to KRA's Corporate Data Office guarantees data accuracy. A committee usually examines the data before it is shared to verify the coding accuracy used to generate it.

In general, the use of audited financial statements helped to improve the reliability of the research.

3.6.2 Validity of Research Instrument

Since the research uses a quantitative approach, all the data is in numerical form. This means it can be measured in a precise way and easily analysed.

3.7 Ethical Issues in Research

The Corporate Data Office (CDO) at Kenya Revenue Authority authorized the researcher to use data from KRA premises for research purposes. This authorization was granted in accordance with the requirements for research program and the objective of the researcher.

The data provided strictly adheres to the provisions outlined in the Data Protection Act and follows ethical research practices. There was no violation of any data protection regulations or research ethics in the collection and usage of the provided data. To maintain confidentiality and comply with privacy standards, the identity of the companies within the dataset was carefully anonymized. The data used underwent thorough verification and vetting process by the Corporate Data Office to ensure its reliability. The researcher did not extract the data directly from KRA systems but utilized the information vetted by the Corporate Data Office. The data used in the research is publicly available and accessible

to individuals seeking such information. This transparency aligns with the government's commitment to openness, accountability and the adherence to legal and ethical standards of research.

3.8 Chapter Summary

This chapter presents the research methodology to be applied to the study. It provides the research philosophy, research design, study population, sampling techniques, sample size, data collection, and analysis procedures. It also identifies the diagnostic tests involved in the data analysis. The chapter also examines the research quality, focusing on reliability and validity. It further discusses the potential ethical concerns involved in the current study.

CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents the findings from data analysis. The study examined the relationship between firm characteristics and tax compliance among large corporations in Kenya. The research findings include descriptive statistics, diagnostic test parameters, and inferential statistics, presented primarily in tables.

4.2 Descriptive Statistics

Descriptive statistics describe and summarise the sample units, presenting the essential characteristics of the dataset, such as the central tendency, distribution, or variability. They provide insight into the dataset, allowing for the identification of patterns and relationships between the variables. The descriptive statistics of the data series for this study are shown in *Table 3* below.

The sample units selected for the study were 251 firms observed over seven years from 2016 to 2022. The sample of 251 unique firms was selected purposively, with those having a tax audit adjustment/additional assessment (i.e. tax non-compliance) for at least 2 years being considered and included in the study. This means that all businesses with just one additional assessment throughout the study period were excluded. For example, if between years 2016 and 2022, a company had additional assessments in 2017 and 2020, then it would have non-compliance rates of say 5% and 9% in 2017 and 2020 respectively and 0% non-compliance in all the other five years in the panel.

It is also worth stating that the sector or industry variable was measured as a dichotomous binary scale 0 or 1, to create dummy variables for the industry variables. In the raw data, each of the four industries in the study was treated as a separate independent variable with a clear header, (i.e. Industry_FinancialandInsuranceActivities; Industry_Manufacturing; Industry_Construction and Industry_WholesaleandRetailTrade) with each of the four columns containing only zero and one according to the Yes/No or True/False rule for each column.

While there are multiple statistics in *Table 3*, the mean and standard deviation are the most relevant as they illustrate the distribution of values across the dataset. Typically, the standard deviation demonstrates the spread of the values from the mean, providing a complete picture of the distribution of the data points.

The mean statistic for non-compliance rate (before logarithmic transformation) was found to be 14.89%, with a standard deviation of 1.76. This pattern suggests that large corporations in Kenya, particularly those in the big sectors, exhibit almost similar characteristics with regards to complying to tax obligations.

As shown in *Table 3*, the mean statistic for age was 22.12, ranging from 1 year to 123 years, with a standard deviation of 13.645. This pattern infers that there is a moderate range in age among large corporates in Kenya, especially those in the big four industries, as age values are also relatively stable, not deviating much from the average age.

Further, the mean statistic for the size variable (after logarithmic transformation) was 9.24 with a standard deviation of 0.98, suggesting that large corporations operating in Kenya report consolidated gross turnovers that do not deviate much from one another or from the average. The slightly higher median (9.38) relative to the mean (9.28) suggests a slightly left-skewed distribution, indicating the presence of a small number of relatively low-sales firms. The minimum and maximum values, -1.54 and 11.16 respectively, point to substantial diversity in sales, ranging from small to large among the large corporates in Kenya.

Table 3 also reveals that financial and insurance activities variable had a mean statistic of 0.26 with standard deviation of 0.44, indicating that the data points for the financial and insurance activities are tightly clustered around the mean.

As further illustrated in *Table 3*, manufacturing had a mean statistic of 0.31 with a standard deviation of 0.463, revealing that firms in this sector also display similar features. Additionally, the table shows that wholesale and retail trade had a mean of 0.29 with a standard deviation of 0.45, meaning that companies in this sector equally display comparable characteristics. Moreover, the table demonstrates that construction had a

mean of 0.14 with a standard deviation of 0.35, signifying that firms in the sector have alike patterns and trends.

Lastly, the table reveals that liquidity levels had a mean of 91.47 and a standard deviation of 3184.83, denoting that large corporations in Kenya's big four industries have very diverse liquidity levels.

Table 3: Descriptive Statistics Summary

	Non-Compliance Rate	Size	Age	Financial & Insurance Activities	Manufacturing	Wholesale And Retail Trade	Construction	Liquidity levels
Mean	14.89	9.2440	22.1204	0.2637	0.3111	0.2860	0.1393	91.4721
Median	0.33	9.3767	23	0	0	0	0	0.0494
Maximum	4359.58	11.1351	123	1	1	1	1	131905
Minimum	0	-1.5391	1	0	0	0	0	0
Std. Dev.	1.76	0.9841	13.6452	0.4408	0.4631	0.4520	0.3463	3184.8250

Source: Author (2026)

4.3 Diagnostic Tests

4.3.1 Hausman Test

The results of the Hausman test, assessed through Fixed and Random Effects tests, are presented in *Table 4*. Primarily, the Hausman Test was used to determine whether to use a fixed effects or a random effects model in the analysis. The null hypothesis of the Hausman test is that unobserved individual effects are uncorrelated with the explanatory variables, supporting a random effects model. The alternative hypothesis emphasises that unobserved individual effects and the explanatory variables are correlated, supporting the use of a fixed effects model to address potential endogeneity.

As shown, the probability value (p-value) of the Hausman test is 0.000, which is less than the critical or significance value of 0.05 ($p < 0.05$). This implies rejecting the null hypothesis and accepting the alternative hypothesis that a Fixed Effects model is appropriate for the analysis.

Table 4: Hausman Test Summary

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	55.8052	5.0000	0.0000
Source: Author (2026)			

4.3.2 Chow Test for Fixed Effects

With the Hausman Test revealing the Fixed Effects models as appropriate for analysing the study's panel data, a Chow Test was further conducted to choose between a common effect model (CEM) and a fixed effect model (FEM). This test was crucial in determining if the regression coefficients were the same across different groups or time periods. The null hypothesis for this test is that CEM is appropriate, implying that regression coefficients are the same across groups or time periods. The alternative hypothesis is that FEM is appropriate, suggesting that at least one regression coefficient varies across the group.

The results of the Chow Test for Fixed Effects are presented in *Table 5*. As shown in the table, the test returned a probability value (p-value) of 0.0000, implying rejecting the null hypothesis and accepting the alternative hypothesis. This means that FEM is a better fit for the study's panel data, as there are significant differences in coefficients between groups, which FEM accounts for effectively.

Table 5: Chow Test Summary

Redundant Fixed Effects Tests			
Equation: EQ01			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	5.2473	-201,364.0000	0.0000
Cross-section Chi-square	776.760112	201.0000	0.0000

Source: Researcher (2026)

4.3.3 Heteroskedasticity

Findings related to the heteroscedasticity test are illustrated in *Table 6* and *Table 7*. *Table 6* includes findings of the heteroscedasticity test on panel cross-section datasets. Obtained using the Breusch Pagan test, the results indicate a p-value of 0.0000, which is less than the critical value of 0.05. This means rejecting the null hypothesis that residuals are homoscedastic, and accepting the alternative hypothesis that residuals are heteroscedastic. To address this problem of heteroscedasticity in panel cross-section datasets, the Generalized Least Squares (GLS) method was adopted.

Table 6: Heteroscedasticity Test Summary (Panel Cross-Section)

Panel Cross-section Heteroskedasticity LR Test			
Null hypothesis: Residuals are homoscedastic			
	Value	Df	Probability
Likelihood ratio	852.6306	214	0.0000
LR test summary:			
	Value	Df	
Restricted LogL	-1592.376	667	
Unrestricted LogL	-1166.061	667	

Source: Researcher (2026)

Table 7 shows a probability value of 1.0000, which is more than the critical value of 0.05. This means accepting and supporting the null hypothesis that homoscedasticity is present while rejecting the alternative hypothesis that the data is heteroscedastic. With no significant effect, it is apparent that with increasing values of the independent variables, the dependent variable (tax noncompliance) does not change drastically; it remains more

or less constant. Therefore, the panel period dataset meets the heteroscedasticity assumption.

Table 7: Heteroscedasticity Test Summary (Panel Period)

Panel Period Heteroskedasticity LR Test			
Null hypothesis: Residuals are homoscedastic			
	Value	Df	Probability
Likelihood ratio	10.97155	214	1.0000
LR test summary:			
	Value	Df	
Restricted LogL	-1592.376	667	
Unrestricted LogL	-1586.891	667	

Source: Researcher (2026)

4.3.4 Stationarity Test

A stationarity test was conducted on the datasets to determine whether they satisfy the statistical properties of a panel dataset. Primarily, the test was used to check if the panel datasets were constant across the study period. The stationarity test for the study involved testing the null hypothesis that the panel dataset is non-stationary (has a unit root) and the alternative hypothesis that the panel dataset is stationary (has no unit root). Generally, a significant p-value ($p < 0.05$) implies rejecting the null hypothesis that the data is non-stationary and accepting the alternative hypothesis that the data is stationary.

An all-unit root test was conducted using the Augmented Dickey-Fuller (ADF) test at level with constant, with constant and trend, and without constant and trend. Given that $\ln noncompliance rate$, $\ln age$, $\ln size$, $\ln profitability$, and $\ln liquidity levels$ were significant at level with constant and trend, they satisfied the stationarity condition, specifically indicating trend-stationarity. As such, these transformed variables were adopted in subsequent analyses. Findings of the ADF are presented in *Table 8*.

Table 8: Stationarity Test Summary

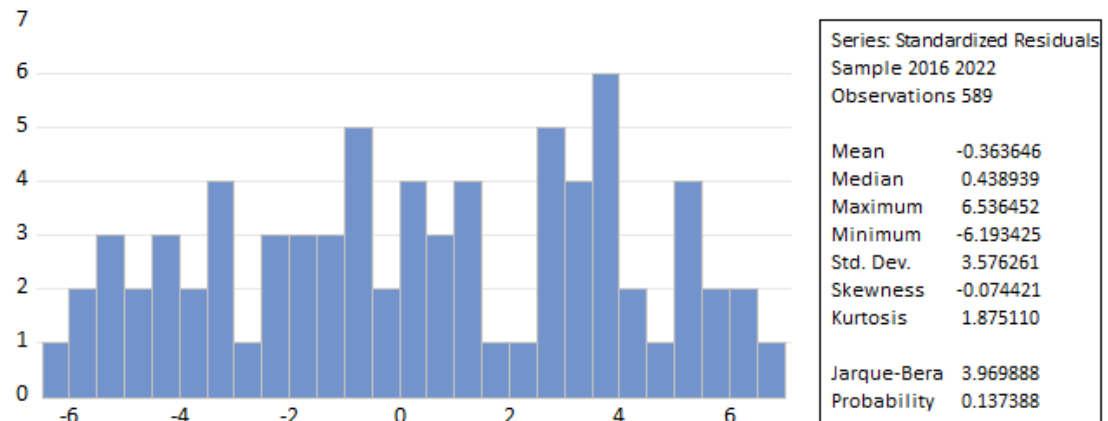
UNIT ROOT TEST RESULTS TABLE (ADF)						
Null Hypothesis: the variable has a unit root						
	At Level	LNNONCOMPLI ANCERATE	LNA GE	LOGSI ZE	LOGPROFI TABILITY	LOGLIQUIDIT YLEVELS
With Constant	t-Statistic	0.217	0.0001	0.9677	0.0072	0.4058
	Prob.	0.5746	0.0001	0.3374	NA	0.2675
		no	***	No	***	no
With Constant & Trend	t-Statistic	0.1735	0.0001	0.0486	NA	0.7978
	Prob.	0.0000	0.0001	0.0000	0.0000	0.0000
		***	***	***	***	***
Without Constant & Trend	t-Statistic	0.1881	1	0.9999	0.6593	0.7705
	Prob.	0.6319	1	0.624	0.996	0.6455
		no	no	no	no	no
Notes:						
a: (*) Significant at the 10%; (**) Significant at the 5%; (***) Significant at the 1% and (no) Not Significant						
b: Lag Length based on SIC						
c: Probability based on MacKinnon (1996) one-sided p-values.						

Source: Author (2025)

4.3.5 Normality Test

A normality test was conducted on the panel dataset to assess if it follows a normal distribution. As shown in *Figure 3*, visual methods, mainly a histogram was used to check if the panel dataset is normally distributed. The Jarque-Bera test was also considered to substantiate the visualizations presented by the histogram. As indicated in the figure, the Jarque-Bera Test statistic is 3.9699, with a corresponding probability value of 0.1374. Given that the probability of the Jarque-Bera Test is more than the significant value of 0.05 ($p > 0.1374$), the null hypothesis that residuals are normally distributed is accepted.

Figure 3: Normality Test Visual Representation



Source: Researcher (2026)

4.3.6 Pooled OLS Choice

Pooled OLS (Ordinary Least Squares) was further conducted on the panel dataset. Findings of the pooled OLS are presented in *Table 9*. As shown, the results indicate that the regression is statistically significant, $F = 53.7616$, $p\text{-value} < 0.0000$. The results also show that close to 36% of variation in noncompliance is explained by the model. Age, financial and insurance activities, and manufacturing have a positive impact on noncompliance rate while size and construction have negative impacts. The negative impact of size is perhaps due to the fact that large firms tend to have economies of scale advantages to absorb tax compliance costs due to their high turnover and ability to hire specialised staff such as external auditors to deal with tax audits. That of construction can be attributed to the fact that the industry is subjected to massive regulations that attract comprehensive external scrutiny, which acts as a deterrent against noncompliance. However, not all the explanatory variables are statistically significant. As shown, while age, size, and financial and insurance activities industry are statistically significant, manufacturing and construction are not statistically significant.

The results in *Table 9* are however not acceptable since the model assumes that all the firms in the panel data have the same characteristics. Since the study's panel data comprises different firms from different industries and with different characteristics, the

likelihood of heterogeneity (unobserved firm-specific characteristics) exists. Pooled OLS camouflages these unobserved firm-specific characteristics (fixed effects), and as a result, the estimated regression coefficients could be biased or inconsistent and can lead to erroneous inferences. Thus, the solution for this is using the Fixed Effect model, as supported by the Hausman and Chow tests, since it takes into account unobserved heterogeneity.

It is worth mentioning that the wholesale and retail trade dummy variable was dropped from the model equation to serve as a reference category because of its high multicollinearity and to avoid the dummy variable trap. Including as many dummy variables as the number of categories along with the intercept term in a regression equation often leads to the problem of the *Dummy Variable Trap*. As such, the rule is to either keep the intercept and exclude the dummy variable for any category, or to drop the intercept term and include a dummy variable for each category. Hence for this study, the intercept term was kept and the *wholesale and retail trade dummy variable* dropped, especially due to its high multi-collinearity.

Table 9: Pooled OLS Summary

Dependent Variable: LNNONCOMPLIANCERATE				
Method: Panel Least Squares				
Sample: 2016 2022				
Periods included: 7				
Cross-sections included: 251				
Total panel (unbalanced) observations: 589				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.5135	1.1181	1.3536	0.1764
LNAGE	0.5729	0.1233	4.6449	0.0000
LOGSIZE	-1.2795	0.1176	-10.8839	0.0000
LOGPROFITAB	1.0159	0.1294	7.8498	0.0000
INDUSTRY="Construction"	-0.5730	0.3110	-1.8423	0.0659
INDUSTRY="Financial and Insurance Activities"	1.4213	0.3100	4.5840	0.0000
INDUSTRY="Manufacturing"	0.1899	0.2359	0.8050	0.4212
R-squared	0.3566	Mean dependent var		-0.4124
Adjusted R-squared	0.3500	S.D. dependent var		2.7124
S.E. of regression	2.1869	Akaike info criterion		4.4146
Sum squared resid	2783.3640	Schwarz criterion		4.4667
Log likelihood	-1293.1100	Hannan-Quinn criter.		4.4349
F-statistic	53.7616	Durbin-Watson stat		0.8758
Prob(F-statistic)	0.0000			

Source: Researcher (2025)

4.3.7 Serial Autocorrelation

Serial autocorrelation or correlation was also conducted on the panel dataset to assess whether the datasets or error terms are correlated with preceding values. It was essential to understand whether the datasets violated the assumption of independent errors in regression as this could lead to inaccurate standard errors, biased estimates, and misleading inferences. The Durbin-Watson statistic was used to determine the presence or absence of serial autocorrelation the panel dataset. As shown in *Table 9*, the Durbin-Watson statistic for the regression model was 0.87. Usually, the Durbin-Watson statistic is a value between 0 and 4, where a score close to 2, usually 1.5 to 2.5, indicates no autocorrelation, less than 2 suggests positive autocorrelation, and greater than 2 infers a negative autocorrelation (Champion et al., 1998; Turner, 2020). Since the regression

model for the panel data returned a Durbin-Watson statistic of 0.87, which is less than 2, it is conclusive that positive autocorrelation is present in that residuals are correlated with previous values. The issue of serial autocorrelation was addressed through the adoption of the GLS method.

4.4 Inferential Statistics

4.4.1 Correlation Analysis

Akoglu (2018), Schober et al. (2018), and Janse et al. (2021) describe correlation analysis as a statistical approach for assessing the possibility of a linear correlation between the dependent and independent variables. Schober et al. (2018) further illustrate that with the Pearson correlation analysis, the change in the magnitude of one variable in the correlated data relates to the variation in the direction or strength of the other variable, either in the same or opposite direction. Thus, Pearson correlation analysis measures the strength of the linear relationship between dependent and independent variables.

The rule of correlation coefficients, as highlighted by Schober et al. (2018) and Papageorgiou (2022), is that the most robust correlation coefficients are those closest to one (+1) and demonstrate positive behaviours. The rule also states that correlation coefficients are strongest if they are closest to (-1), and in this case, signifying a negative correlation (Schober et al., 2018; Papageorgiou, 2022).

The results of the Pearson correlation analysis of the variables under study are presented in *Table 10* below. As illustrated in the table, age had a weak and positive relationship with non-compliance rate ($r = 0.36$), indicating that as companies grows older, tax non-compliance slightly surges. The findings also revealed that size had a weak and negative relationship with non-compliance rate ($r = -0.3$), revealing that as a firm grows, non-compliance slightly declines. As further shown in the table, findings uncovered that financial and insurance activities had a significant moderate and positive relationship with non-compliance rate ($r = 0.4$), denoting that an increase in financial and insurance activities is often accompanied by moderate upswings in non-compliance rates. As also indicated, manufacturing has a weak and positive relationship with non-compliance rate ($r = 0.04$), disclosing that growth among manufacturing firms is usually accompanied with slight surges in non-compliance. Additionally, the findings demonstrate that construction

has a weak and negative correlation with non-compliance rate ($r = -0.1$), denoting slight positive changes in the construction sector are accompanied with small declines in non-compliance rates. Lastly, the findings revealed a weak and negative correlation between wholesale & retail trade with non-compliance rate ($r = -0.3$).

Table 10: Pearson Correlation Analysis Summary

	LNNO NCOM PLIAN CERATE	LNAGE	LOGSI ZE	LOGP ROFIT ABILI TY	Constru ction	Financial and Insuranc e Activitie s	Manufa cturing	Wholesal e and Retail (Autos)
LNNONC OMPLIAN CERATE	1							
LNAGE	0.2928	1						
LOGSIZE Constructi on	-0.2742	0.1455	1					
	-0.1199	-0.2358	-0.0090	0.0991	1			
Financial & Insurance Activities	0.3876	0.2037	-0.0805	0.3498	-0.1782	1		
Manufactu ring	0.0395	0.2606	0.0531	0.0836	-0.2708	-0.3258	1	
Wholesale and Retail (Autos)	-0.2623	-0.2521	0.0181	-0.4282	-0.2908	-0.3498	-0.5314	1

Source: Author (2025)

4.5 Regression Analysis

Having computed the diagnostic tests to substantiate the assumptions made and correlation analysis for the variables, a panel regression analysis was conducted on the panel dataset using the Fixed Effects model. To address the problem of serial correlation and heteroscedasticity, the generalized least of squares (GLS) weights, cross-section weights option, which is ideal for modelling and analysing unbalanced panel data was used. The regression analysis was conducted to examine the influence of the independent variables on the dependent variable while controlling for profitability levels. It was also essential to assess the strength of the relationships among the variables. Given the *dummy variable trap*, the wholesale and retail trade dummy variable was dropped from the regression model equation, as explained in the last paragraph of subsection 4.3.3. A model summary of the multiple regression analysis conducted for the study is presented in *Table 11*.

The regression analysis followed the equation: -

$$\text{LnnoncomplianceRate} = b_0 + b_1 \text{lnage} + b_2 \text{logsize} + b_3 \text{FinancialandInsuranceActivities} + b_4 \text{Manufacturing} + b_5 \text{Construction} + b_6 \text{logprofitability} + e$$

Table 11: Regression Analysis Summary

Dependent Variable: LNNONCOMPLIANCERATE				
Method: Panel EGLS (Cross-section weights)				
Sample: 2016 2022				
Periods included: 7				
Cross-sections included: 251				
Total panel (unbalanced) observations: 589				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.5212	0.4092	6.1621	0.0000
LNAGE	0.3598	0.0478	7.5207	0.0000
LOGSIZE	-1.7087	0.0591	-28.9191	0.0000
INDUSTRY="Construction"	-0.9151	0.1521	-6.0178	0.0000
INDUSTRY="Financial and Insurance Activities"	0.8727	0.0959	9.0961	0.0000
INDUSTRY="Manufacturing"	0.2408	0.0669	3.5976	0.0003
LOGPROFITABILITY	1.5134	0.0594	25.4820	0.0000
Weighted Statistics				
R-squared	0.8643	Mean dependent var	-0.4090	
Adjusted R-squared	0.8629	S.D. dependent var	5.3604	
S.E. of regression	1.9785	Sum squared resid	2278.2900	
F-statistic	617.7631	Durbin-Watson stat	1.1999	
Prob(F-statistic)	0.0000			
Unweighted Statistics				
R-squared	0.3196	Mean dependent var	-0.4124	
Sum squared resid	2943.3990	Durbin-Watson stat	0.9571	

Source: Author (2025)

Table 11 includes results of the panel regression model equation conducted using EViews. The r-square, the adjusted r-square, the F-Statistic, the coefficients, and the significance or probability values are the most relevant as they offer significant insights with regards to the study.

As shown in the table, the r-squared and adjusted r-squared values are 0.8786 and 0.8775, respectively. While both the r-squared and adjusted r-squared are suitable measures of how well a regression model fits the data, the latter is a more reliable measure of model fitness, especially when dealing with multiple regression models, as in the case of the current study, as it addresses the issue of overfitting. An 87.75% adjusted r-squared value implies that the panel regression model has a remarkable performance, with the IVs having significant predictive power on the DV. The statistic also indicates that approximately 87.75% of the variance in the dependent variable (noncompliance rate) can be explained by the independent variables in the regression model, after adjusting for the number of predictors.

From this adjusted r-squared value, it is apparent that 12.25% of the variability remains unexplained. This unexplained variance can be attributed to other factors, such as debt levels, the cash-flow position, the control environment, the tax culture, management composition, as well as political legitimacy i.e. trust in the authority of government and its institutions.

As also indicated in the table, the F-statistic is 617.7631 with a probability (p) value of 0.0000. As such, it is conclusive that the independent variables in the multiple regression model reliably predict the dependent variable ($F = 617.7631, p < 0.0000$). This finding typically implies that the regression analysis model applied makes sense and that the given set of predictors is significant in explaining the variance of the outcome variable. In other words, the variables age, size, financial and insurance services, manufacturing, construction, wholesale and retail trade, repair of motorcycles and motor vehicles can be used to predict noncompliance under conditions where profitability is controlled.

As shown in *Table 11*, the regression analysis revealed that a unit increase in age leads to a 0.3598 rise in noncompliance rate, with the effect being statistically significant ($\beta = 0.3598, p = 0.0000$). The findings also showed that a unit increase in size is accompanied

with a 1.7087 decline in noncompliance rate, with the effect being statistically significant ($\beta = -1.7087$, $p = 0.0000$). The table also shows that a unit change in the financial and insurance activities industry is accompanied with a 0.8727 surge in noncompliance rate, with the effect being statistically significant ($\beta = 0.8727$, $p = 0.0000$). Likewise, the table demonstrates that a unit change in the manufacturing sector leads to a 0.2408 increase in noncompliance rate, with the effect being statistically significant ($\beta = 0.2408$, $p = 0.0003$). Additionally, the table indicates a unit change in the construction sector causes a 0.9151 decline in noncompliance rate among players in the industry, with the effect being statistically significant ($\beta = -0.9151$, $p = 0.0000$).

With regards to the *Dummy Variable Trap*, the rule is that the constant gives the expected value of the DV for the reference category, in this case, wholesale and retail trade when all other IVs are zero (Vijayamohan & Mohani, 2024; Yip & Tsang, 2007). The rule is also that the coefficient of the dummy variables indicates the difference in the dependent variables average value for each of the categories compared to the reference category (Vijayamohan & Mohani, 2024; Yip & Tsang, 2007). As such, it is conclusive that the coefficients for finance and insurance activities, manufacturing, and construction, indicate how much noncompliance rate changes on average for firms in these sectors compared to those in the wholesale & retail trade sector. In other words, noncompliance rate surges by 0.8727 on average for financial and insurance activities companies as compared to firms in the wholesale and retail trade. From the regression coefficients in *Table 11*, it is also evident that noncompliance rate rises by 0.2408 on average for manufacturing companies as compared to players in the wholesale and retail trade sector. Lastly, it is demonstrated that noncompliance rate drops by 0.9151 on average for construction companies compared to those in the wholesale and retail trade.

From these findings, it is evident that age has a significant effect on non-compliance rate, whereby an increase in age is accompanied with a surge in non-compliance rate or rather a decline in compliance ($\beta = 0.3598$, $p = 0.000 < 0.05$). This implies that older firms are more likely to record an increase in noncompliance or rather a decline in compliance. Additionally, it is apparent that size significantly influences noncompliance rate in that as a firm's size increases non-compliance declines; that is, compliance surges ($\beta = -1.7087$, $p = 0.000 < 0.05$). It is also conclusive that the financial and insurance activities as well

as the construction sectors are significantly different from the wholesale and retail trade industry, with the financial and insurance services sector demonstrating a greater non-compliance ($\beta = 0.8727$, $p = 0.000 < 0.05$) as compared to wholesale and retail trade, and the construction sector showing lower noncompliance rates ($\beta = -0.9151$, $p = 0.000 < 0.05$), typically better compliance, vis-à-vis the wholesale and retail trade sector. The findings also indicate that manufacturing shows greater non-compliance rate on average as compared to the wholesale and retail trade sector, and the difference is statistically significant ($\beta = 0.1265$, $p = 0.1625 > 0.05$). Given the coefficients, the construction sector is associated with slightly declining noncompliance rate, manufacturing involves slight surges, while financial and insurance services sector tend to have higher noncompliance rate, when compared to the wholesale and retail trade (repair of motor vehicles and motorcycles).

Table 12: Moderation Analysis

Dependent Variable: LNNONCOMPLIANCERATE				
Method: Panel EGLS (Cross-section weights)				
Sample: 2016 2022				
Periods included: 7				
Cross-sections included: 251				
Total panel (unbalanced) observations: 589				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.4080	0.5198	2.7089	0.0070
LNAGE	0.3995	0.0491	8.1401	0.0000
LOGSIZE	-1.5185	0.0764	-19.8678	0.0000
INDUSTRY="Construction"	-1.2116	0.1528	-7.9284	0.0000
INDUSTRY="Financial and Insurance Activities"	1.0009	0.1041	9.6141	0.0000
INDUSTRY="Manufacturing"	0.1922	0.0683	2.8139	0.0051
LOGLIQUIDITYLEVELS	0.5192	0.1067	4.8662	0.0000
AGEINTERACTIONTERM	0.0643	0.1529	0.4209	0.6740
SIZEINTERACTIONTERM	-0.0344	0.0836	-0.4115	0.6808
FINANCEINTERACTIONTERM	-0.7522	0.2240	-3.3580	0.0008
MANUFACTURINGINTERACTIONTERM	-0.1778	0.2691	-0.6608	0.5090
CONSTRUCTIONINTERACTIONTERM	-0.1580	0.3742	-0.4223	0.6730
LOGPROFITABILITY	1.4035	0.0595	23.6047	0.0000
Weighted Statistics				
R-squared	0.8769	Mean dependent var	-0.5776	
Adjusted R-squared	0.8743	S.D. dependent var	5.6147	
S.E. of regression	1.9621	Sum squared resid	2148.2290	
F-statistic	331.2754	Durbin-Watson stat	1.2240	
Prob(F-statistic)	0.0000			
Unweighted Statistics				
R-squared	0.3338	Mean dependent var	-0.4544	
Sum squared resid	2726.9590	Durbin-Watson stat	0.9545	
Source: Author (2025)				

Source: Author (2025)

Table 12 above includes a panel regression model that took into consideration the moderating variable, liquidity levels. The purpose was to examine whether liquidity levels moderate the relationship between the independent variables and the dependent variable (non-compliance rates) while controlling for profitability levels.

To execute this regression (moderation) analysis, the independent variables and the moderator variable were first centred by subtracting their mean to reduce multicollinearity, create centred variables, and simplify interpretation. Interaction terms were then created by multiplying the centred independent variables with the centred moderator variable. Finally, a regression (moderation) analysis was executed with the independent variables, moderator variable, and interaction terms as the predictors and the dependent variable as the outcome. The control variable was also included in the model equation to examine the behaviour of the independent variables with the dependent variable in an environment moderated by liquidity levels and where profitability is controlled.

To interpret moderation analysis, the interaction terms are assessed to check if they are statistically significant or not (Hair et al., 2021; Helm & Mark, 2012). If the interaction term is statistically significant, it is evident and conclusive that a moderation effect exists (Hair et al., 2021; Helm & Mark, 2012). In other words, a statistically significant interaction term implies that the moderator variables play a role in how IVs interact with or impact the DV.

As shown in *Table 12*, the adjusted r-squared value of 0.8743 indicates that the model is a good fit and has an outstanding performance, with the predictor variables having significant predictive power on the DV. The statistic also indicates that approximately 87.43% of the variance in noncompliance rate can be explained by the predictors in the regression model. From this adjusted r-squared value, it is apparent that 12.57% of the variability remains unexplained. The F-statistic is 331.2754 while its corresponding p-value is 0.0000, denoting that the predictors in the model reliably predict the outcome variable ($F = 331.2754, p < 0.0000$).

As illustrated in *Table 12*, a unit change in the interaction term for age leads to a 0.0643 surge in noncompliance rate, and the effect is not statistically significant ($\beta = 0.0643, p =$

0.6740 > 0.05). Findings have also shown that the interaction term for size causes a 0.0344 decline in noncompliance rate, with the effect likewise not being statistically significant ($\beta = -0.0344$, $p = 0.6808 > 0.05$). Regarding the interaction term for finance and insurance activities, findings show that a unit change in the interaction term leads to a 0.7522 decline in noncompliance rate, and the effect is statistically significant ($\beta = -0.7522$, $p = 0.008 < 0.05$). This means that liquidity levels moderate the effect of financial and insurance activities on tax non-compliance, not only reducing the effect of this industry on tax non-compliance, but also transforming it from a positive to a negative effect.

Taking the dummy variable trap into consideration and the wholesale and retail trade sector into consideration, noncompliance drops for firms in the financial and insurance activities industry as compared to those in the former. Noncompliance is low in the financial and insurance activities sector as compared to the wholesale and retail trade sector, which involves substantial amounts of cash transactions whose lack of digital trail encourages business to underreport or misreport financial statements to avoid tax.

The interaction term for manufacturing as shown in Table 12 shows that a unit change in the variable leads to a 0.1778 decline in non-compliance rate, but the effect is not statistically significant ($\beta = -0.1778$, $p = 0.5090 > 0.05$). Given this finding and taking the dummy variable trap into consideration as well as the reference category (wholesale and retail trade), it is conclusive that noncompliance slightly drops for firms in the manufacturing sector as compared to players in the wholesale and retail trade sector. However, these effects are not statistically significant.

Lastly, the interaction term for construction indicates that a unit change in the variable leads to a 0.1580 decline in noncompliance rate, but the moderation effect is not statistically significant. Given the reference category of wholesale and retail trade, it is evident that an increase in liquidity level leads to a slight decline in non-compliance among firms in the construction sector as compared to those in the wholesale and retail trade sector. The construction industry is also capital-intensive, requiring significant investment in heavy machinery, materials, and project financing that provide opportunities to reduce taxable income through capital deductions.

4.6 Chapter Summary

This chapter presents the research findings. It features descriptive statistics, diagnostic tests, and inferential statistics or analyses. The diagnostic tests include stationarity, the Hausman test, and heteroscedasticity. The descriptive statistics feature descriptive summaries of the dataset. Finally, the chapter covers inferential analyses or statistics, which include correlation and regression analyses.

CHAPTER FIVE: DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter includes a summary of the findings, a discussion, a recommendations section based on the findings, and an implications subsection. It further identifies the study's limitations and the direction for future research.

5.2 Summary of Key Findings

The Pearson correlation analysis indicated that there is a weak and positive relationship between age and noncompliance rate. This implies that as age increases, non-compliance to tax obligations tends to surge, but slightly. It also means that younger companies have reduced tax non-compliance rates. The implication is that as a firm grows older, compliance tends to somewhat decline. Another inference is that younger corporations tend to showcase greater tax compliance. The multiple regression analysis corroborated this finding, establishing that indeed, age has a significant effect on non-compliance, with an increase in age more likely to lead to a decline in tax compliance (See Table 11).

The Pearson correlation analysis also revealed that there is a weak and negative relationship between size and non-compliance rate (See Table 10). This indicated that as size increases tax non-compliance reduces. The multiple regression further verified this finding, indicating that as size increases, non-compliance declines or rather compliance surges (See Table 11).

The Pearson correlation analysis further uncovered that there is a moderate and positive correlation between financial and insurance activities and non-compliance (See Table 10). This means that as players in the financial and insurance services sector increase, compliance to tax obligations tends to decrease, however, moderately. The multiple regression analysis supported this finding, indicating that finance and insurance activities has a significant effect on non-compliance (See Table 11), with an increase in the industry leading to an increase in non-compliance or a decrease in tax compliance.

The Pearson correlation additionally unearthed that there is a weak and positive relationship between the manufacturing sector and non-compliance (See Table 10). The

multiple regression upheld this finding, establishing that the manufacturing sector has a statistically significant effect on non-compliance (See Table 11), with increases among companies in the sector being accompanied with a surge in tax non-compliance rates or rather a decline in tax compliance.

Moreover, the Pearson correlation disclosed that there is a weak and negative correlation between construction activities and non-compliance rate (See Table 10). This means that as companies in the construction sector increase, non-compliance tends to decline, or rather tax compliance tends to improve. The multiple regression analysis substantiates this finding, ascertaining that construction has a statistically significant effect on non-compliance rate (See Table 10), with growth in the construction industry leading to a decrease in non-compliance rate (i.e. tax compliance surges).

The Pearson correlation analysis lastly found that there is a weak and negative correlation between wholesale and retail trade and non-compliance rate (See Table 10). This implies that an increase in the sector, may potentially lead to a decline in non-compliance or an improvement in compliance. The finding is advanced by the multiple regression analysis, which establishes that even though both the financial and insurances activities and manufacturing sectors show low tax compliance rates on average and rank below the construction industry, they outperform the wholesale and retail trade sector (See Table 11).

The moderation analysis revealed that although the interaction terms for age, size, construction, and manufacturing involve some changes in their coefficients, these variations were not statistically significant (See Table 12). While these variations indicate that liquidity levels have a moderation effect, there is not the effect is however not statistically significant. It also uncovered that liquidity levels have a moderating effect on tax compliance behaviour among firms in the financial and insurance activities sector, with the effect being statistically significant. Notably, in an environment moderated by liquidity, an increase in firms in the financial and insurance activities industry is more likely to be accompanied by a decline in tax non-compliance rate, or rather an improvement in compliance.

5.3 Discussion of Findings

This section presents the study's conclusions, as reinforced by the theories and literature examined in chapter 2.

5.3.1 Firm Size and Tax Compliance

The findings ascertained that size has a significant effect on the tax non-compliance rate, such that an increase in the former causes a decline in the latter. The implication is that as a company expands in size, its tax compliance rate or behaviour improves given that non-compliance tends to significantly decline. This finding is consistent the presumptions of the economic deterrence models that there are more economic deterrents to tax noncompliance among large corporations. It is also consistent with the discoveries of Teguh and Kristanto (2020), Nguyen et al. (2020), Azrina et al. (2014), Ahmad et al. (2014), Ghani et al. (2012), Barako et al. (2006), Sopiyan (2022), and Okpeyo et al. (2019) that highlight how firm size impacts tax compliance.

In line with economic deterrent models, large firms have more economic deterrents that encourage tax compliance (Devos, 2013). Notably, huge companies are highly conspicuous; thus, the probability of a tax audit is at an all-time high. To avoid severe penalties for tax evasion after audits, these businesses opt to comply and pay their taxes. Besides, unlike most SMEs, large firms have the financial means to spend on tax education to guarantee that employees are sufficiently knowledgeable about accounting and tax laws (Ghani et al., 2012; Nguyen et al., 2020). This action is typically taken to avoid prospective tax liabilities brought on by non-compliance, which could result in substantial penalties and fines during an audit. Tax education expenditures raise tax awareness and encourage voluntary tax compliance.

Additionally, big businesses can afford to hire big audit firms for their auditing services. Unlike other similar businesses, who lack the funds to hire outside chequers, these large corporations are able to have better internal control thanks to the audit expertise of their auditors. (Ahmad et al., 2011). With improved internal control and the knowledge of hired accountants, large firms can address tax liabilities and financial reporting fraud, as well as improve voluntary tax compliance. Besides, leading prominent companies with sufficient financial resources are subject to increased stakeholder demands, such as the

supply of excellent and accurate financial information, which further promotes voluntary tax compliance. Large corporations with adequate funding can engage in efficient tax planning and research, which lowers their tax obligations.

Moreover, when a corporation diminishes in size, it typically encounters distinct commercial conditions that further exacerbate the tax non-compliance rate. Ahmad et al. (2011) ascertained that limited financial resources undermine the ability of small firms to sufficiently fund operational costs, including tax obligations. According to Nguyen et al. (2020), many SMEs exhibit low tax compliance rates due to a lack of knowledge and comprehension of accounting and tax regulations.

Overall, the current study establishes that size shapes tax compliance behaviour of corporations in Kenya, with large ones exhibiting greater compliance to their tax obligations as compared to their small counterparts. Typically, large corporations are more tax compliant to avoid the punitive penalties and fines that noncompliance or evasion attracts. The substantial fines and penalties act as inducements to comply.

5.3.2 Firm Age and Tax Compliance

The findings established that there is a weak and positive relationship between age and non-compliance rate, with age having a significant effect on non-compliance. This finding suggests that a company's compliance with tax requirements tends to decline as it ages. This might be ascribed to the growing intricacy and multiple changes and amendments to tax legislation, which increase the time and expense of compliance. The growth may also stem from a rise in opportunities for tax audits or compliance examinations as more corporate tax returns are filed and submitted annually.

This finding challenges economic deterrent models, which suggest that older companies have more economic deterrents to promote tax compliance, such as improved internal controls and more seasoned staff, which reduces the likelihood that they may submit inaccurate or false financial reports (Devos, 2013, Teguh & Kristanto, 2020; Yu, 2020; Anggraini, 2022, and Acheampong, 2016; Yahaya & Yusuf, 2020).

The current study's conclusions are however significantly grounded in the agency theory, which addresses the simplistic analyses of human behaviour, ignoring the sensitive and illogical nature of human behaviour and the direct environmental conditions that alter and

shape people's actions (Devos, 2013). Given this perspective and Salehi et al.'s (2020) finding that tax avoidance provides management with a means of hiding unfavourable news and opportunistic behaviour, it is likely that managers in older Kenyan-based companies also resort to opportunistic behaviour, such as underreporting income, overstating deductions, and fictitious tax reports for personal gain. This perspective is, however, different from findings from foreign countries. For instance, it differs from Xu and Chen (2018) and Sun et al. (2019) discoveries that are centred on Chinese firms, and Mukhlis and Simanjuntak (2016) inferences centred on Indonesian companies. These Asian-based studies stress that large companies in China and Indonesia primarily hire mature managers whose have years of expertise and experience on their profile to streamline organisational operations, including covering loopholes for non-compliance and malpractices that could promote tax-related liabilities (Mukhlis & Simanjuntak, 2016; Sun et al., 2019; Xu & Chen, 2018). While Xu and Chen (2018), Sun et al. (2019), and Mukhlis and Simanjuntak (2016) underscore how the age of managers, directors, or CEOs influence managerial decisions and effectiveness, minimising and eliminating potential tax malpractices and liabilities, the findings of the current study, that is based in Kenya, advances the fact that contextual differences related to individual's traits and behaviours, which vary across regions and countries due to context- or environment-based factors could be at play.

The difference in findings could also be due to the fact that the current study focussed exclusively on large, established corporates with the likelihood of non-compliance rising with time. It might be challenging to identify non-compliance in the early years because of the complexity and scale of their operations (Benon et al., 2002). Tax audits for large corporates in Kenya tend to be based on a trend analysis spanning many years of observation and industry benchmarking which implies that these companies need to have been in operation for several years. This applies particularly to the tax audits that result in uncontested additional assessments. Further, as these large corporates grow older, they must keep up with frequent modifications to tax laws as well as differences in interpretation of tax laws and other legislative lacunas in emerging tax laws, which create opportunities for inadvertent non-compliance.

5.3.3 Industry and Tax Compliance

The study's findings indicated varying trends in tax compliance for the different big four sectors. The inference is that some industries have specific deterrent constraints that are absent in others and affect tax compliance behaviour. As such, findings are consistent with postulations of the economic deterrent theory. Furthermore, it implies that different industries exhibit distinct tax avoidance behaviours.

The findings uncovered a moderate and positive relationship between the financial and insurance services industry and noncompliance rate, with this sector having a statistically significant effect on non-compliance. The finding implies that tax compliance declines as financial and insurance services firms increase, demonstrating that there exist openings that allow non-compliance even in the face of more stringent industry-specific laws in the financial and insurance activities sector.

The finding aligns with Du Toit (2008) and Ghani et al. (2012) who highlight how some businesses use aggressive tax planning techniques to report low tax compliance rates. From this perspective, the drop in compliance rates among financial and insurance firms can be attributed to factors such as aggressive tax avoidance strategies, which in turn create pressure and opportunities for non-compliance. Large financial and insurance services companies typically have substantial resources and broader (regional) reach, and as a result, can engage in aggressive tax planning to minimize their tax liabilities. Some of the aggressive tax planning strategies common in large financial and insurance services firms include transfer pricing, where profits are shifted to subsidiaries in low-tax countries. Given that Kenya has some of the highest regional tax rates, it is likely that some of the largest financial institutions in the nation are expanding regionally as a transfer pricing tactic to reduce their tax obligations.

The complexity of financial structures and operations is another factor contributing to the poor tax compliance rate among large financial and insurance services firms. Du Toit (2008) and Ghani et al. (2012) underscored how the nature of operations within industries influence tax compliance rates among industry participants. Primarily, the financial and insurance services sector is characterized by sophisticated transactions, intricate financial instruments and global operations. Occasionally, this complexity creates opportunities for

financial and insurance activities companies to engage in tax evasion. The sheer volume and sophistication of financial transactions also create an avenue for low compliance.

The findings of the current study are however inconsistent with Musimenta et al.'s (2019) discovery that financial and insurance services firms show greater dedication to discharging their tax obligations. This variation more likely implies that contextual factors could be at play as the current study is based in Kenya whereas Musimenta et al.'s (2019) study was conducted in Uganda. Musimenta et al.'s (2019) attributed their findings to national pride and confidence in government and its legal systems, underscoring their role in boosting tax morale among financial service companies in Uganda. With corruption largely being a systemic issue within the Kenyan government (Aketch, 2011), it has lowered taxpayers' morale, including large taxpayers such as financial and insurance companies, exacerbating non-compliance, mainly due to the government's poor management of taxes.

The findings also showed that there is a weak and positive relationship between the manufacturing sector and non-compliance rate, and the effect is statistically significant. This finding implies that changes among players in the manufacturing sector tend to influence tax compliance for companies in the sector, with growth somewhat leading a surge in non-compliance or rather a decline in compliance. A possible explanation for this trend is that the capital-intensive nature of the manufacturing industry exposes players in the sector to pressures or aspects that tend to discourage compliance. Key aspects influencing this behaviour are high fixed costs and cash flow strain, along with uncertainty and regulatory pressure, leading to the use of tax planning and evasion. With regard to the high fixed costs and cash flow strain, Kavetsa (2025) affirms that manufacturing requires large investments in facilities, land, and machinery necessary for production. As such, high compliance costs and heavy tax burdens tend to strain cash flow, prompting manufacturers to reduce their tax burden through non-compliance strategies. Hapsari (2025) and Trisanti (2024) ascertain that while capital intensity permits legitimate tax planning, such as lowering taxable income through capital allowances (depreciation) on fixed assets, the intricacy of their procedures can occasionally mask aggressive tax avoidance. With respect to uncertainty and regulatory pressure, the manufacturing industry is extremely vulnerable to policy changes, whereby regular tax legislation

changes create an uncertain environment that sometimes encourages non-compliance to safeguard profitability. The findings, however, contradict those of Carillo et al. (2016) who postulates that tax incentives are sufficient motivators for adherence to tax laws. However, Dwenger et al. (2016) further observed that Although tax incentives have the potential to greatly increase tax compliance, the choice primarily depends on the underlying motivation of the business.

The findings established that there is a weak negative correlation between the construction sector and non-compliance rate, and that construction has a significant effect on tax compliance. The implication of this finding is that as construction companies experience positive changes, their compliance to tax obligations improves (i.e., non-compliance tends to decline). This finding is consistent with King'oina (2016) who established that adjustments in the construction sector shape how the industry responds to tax compliance. Given King'oina's (2016) discovery that in the construction industry, taxpayer attitudes and perceptions have a substantial effect on tax compliance, it is evident that these factors still determine compliance among construction companies. Besides, the construction industry is subject to several industry-specific rules that are subject to stringent audits and oversight to ensure that buildings do not endanger the lives of people. Thus, with the industry attracting extensive external scrutiny, players consider complying to regulations, including compliance to tax obligations, to avoid compliance costs that include fines or licence revocation.

Moreover, the findings established that the wholesale & retail industry (including repair of motorcycles and motor vehicles) outperformed both the financial & insurance activities and manufacturing sectors when it comes to tax compliance. Given the Kenyan context, this improvement in tax compliance in the sector can be attributed to broader sector policies like the National Automotive Policy (NAP) which have improved the ease of doing business. The introduction of systems such as eTims has also expedited the tax filling process and increased visibility of business operations. The findings support and advance the economic deterrents model, emphasising that certain industries have unique disincentives and restrictions that impact tax compliance but are not present in others. They also support Salehi et al.'s (2020) discovery that distinct industries exhibit distinct patterns of tax avoidance.

5.3.4 Moderating Effect of Liquidity Levels

The study further sought to examine the moderating effect of liquidity levels on the relationship between firm characteristics and tax compliance in large corporate taxpayers. While the coefficients indicated that liquidity levels moderate the association between age, size, construction, and manufacturing, the effect was not statistically significant.

From these findings, it is conclusive that in an environment moderated by liquidity, as companies grow older, non-compliance rates increase but only slightly. This means that even with a healthy liquidity, older firms intensively employ legal and financial tools, set-up subsidiaries in foreign tax havens, and disingenuously take advantage of tax treaties (Ahmad & Ghouri, 2023; Sikka, 2016) to reduce their tax obligations. With time, unbalanced financial structures, shifting investment opportunities, and market conditions also provide loopholes for aggressive but legal tax avoidance.

Similarly, in an environment moderated by liquidity, as companies increase in size, the non-compliance rates decline but only slightly. Large corporations are generally more liquid, and therefore, can meet short-term financial obligations, including tax liabilities on time to avoid attracting penalties. While this indicates that corporate liquidity leads to slight declines in non-compliance rate or rather surges in compliance rate, findings reveal that these effects are not statistically significant. Nonetheless, more liquidity simply implies that large companies typically have stable financial situations, which incentivises them to comply with their tax obligations to avoid accounting malpractices or punitive penalties and fines that could hurt their reputation and financial performance. Besides, corporate income tax compliance is greatly enhanced when a company has a solid financial situation, a high working capital/total assets index, and no financial strain. (Nguyen et al., 2020). Large businesses have undoubtedly attained financial stability and have sufficient operating capital and total assets. Thus, with a healthy financial status, these companies are more inclined to fulfil their tax obligations. Despite short-term debt obligations (explained by liquidity levels), large corporations are less likely to shun their tax obligations due to risks associated with non-compliance and evasion.

Further, in an environment moderated by liquidity, an increase in manufacturing activities not only leads to a decline in tax non-compliance, but also transforms the effect of this

relationship from positive to negative, reducing non-compliance rates. However, the effect is not statistically significant. The trend observed in the manufacturing sector can be attributed to the fact the sector requires a large amount of working capital, which is frequently locked up in receivables, inventory and fixed assets. Despite having solid asset bases, these manufacturing firms face substantial cash flow constraints, which exacerbate their inability to effectively meet short-term obligations, including tax payment obligations. Farhan et al. (2023) highlighted that manufacturing companies usually have high fixed costs and long operating cycles and hence, improved liquidity levels lead to a decline in tax non-compliance.

Further, in an environment moderated by liquidity, an increase in construction activities leads to a slight decline in tax non-compliance. For the construction sector, the observed behaviour is also credited to the fact that the sector requires large investments in heavy gear, supplies, and project funding, making it equally capital-intensive. Alongside the industry's challenging and vulnerable liquidity, these massive investments present opportunities to reduce taxable income and hence, the observed slight improvements in compliance when liquidity levels improve. Kim et al. (2022) further underscored that poor financial management is a major factor in the construction industry's low tax compliance rates. The findings regarding the construction sector align with discoveries made by Zimon et al. (2021), Laili and Dalimunthe (2022), and Murunga et al. (2023) that liquidity aids construction firms in reducing non-compliance. According to Zimon et al. (2021), Laili and Dalimunthe (2022), and Murunga et al. (2023), contractors or construction firms typically have enough short-term cash on hand to prevent expending their working capital in the event that their clients miss payments, potentially necessitating the use of debt to cover the delays. Typically, this pattern results in additional costs beyond the initial bid price. With sufficient or high-level liquidity, contractors can meet ongoing financial commitments, including paying salaries, servicing suppliers, and covering unexpected expenses, such as tax expenses, without considering external funding sources. Besides, adequate or high-level liquidity means greater creditworthiness and easy access to credit to address financial obligations, including tax responsibilities.

Lastly, the research found that liquidity levels moderate the effect of financial and insurance activities on tax non-compliance, not only reducing the effect of this industry

on tax non-compliance, but shifting the effect from a positive to a negative effect i.e., non-compliance rates in this industry reduce (rather than increase) when moderated by liquidity, with the effect being statistically significant. This trend is because the industry involves massive, high-volume transactions, which mean that it is generally more liquid. This high liquidity coupled with close monitoring encourages compliance, leading to declines in non-compliance or rather improvements in compliance. This finding is consistent by discoveries made by Osoro and Kiplangat (2022) highlighting the vital role liquidity plays in supporting financial institutions to address financial difficulties, including tax liabilities. According to Osoro and Kiplangat (2022), firms in the financial and insurance activities sector are required to have sufficient liquidity to shield themselves from financial shocks. Kenyan financial institutions must keep a minimum of 20% of all matured, short-term, and deposit liabilities in liquid assets as mandated by law. (Osoro & Kiplangat, 2022).

In the banking industry, liquidity refers to a bank's capacity to easily obtain the funds it might require to fulfil its obligations. Financial portfolios, particularly those that act as sources of liquidity, are highly diversified in banks. Among the sources of liquidity for financial institutions are direct cash holdings in currency or accounts with the Central Bank of Kenya. (Osoro & Kiplangat, 2022). In most cases, holding highly creditworthy instruments, such as government bills, which have short maturities and can be sold quickly with no risk of losses, provides liquidity for these institutions. Osoro and Kiplangat (2022) accentuate that since these facilities are easily accessible, they enable banks to contain financial pressure while simultaneously paying for expenses, including tax expenses. Thus, findings from the current study indicate that liquidity levels strengthen the ability of large financial and insurance companies to adhere to their tax obligations.

The moderation effect of liquidity on how financial and insurance activities, manufacturing, and construction interact with tax compliance is weaker compared to the wholesale and retail trade sector. This suggests that both liquid and illiquid companies in the industry can easily underreport sales. Most wholesale and retail firms often operate with relatively short business cycles and have more unpredictable cash flows. In this regard, they may focus more on instant financial benefits like lowering tax outflows, irrespective of whether they currently have strong liquidity. However, according to the

study's findings, big wholesalers and retailers are not especially susceptible to liquidity problems, and as a result, these problems have a significant effect on their short-term expenditure as compared to firms in the other three sectors.

5.4 Conclusion

The study sought to examine the relationship between firm characteristics, including size, age, and industry type, and tax compliance among large corporations in Kenya. As far as the findings are concerned, the study establishes that firm characteristics interact differently with tax non-compliance rates.

The findings establish that size had a significant negative effect on non-compliance. Notably, due to their increased visibility, large firms are subject to more external inspection and monitoring, particularly from tax authorities. As a result, tax non-compliance declines to avoid associated penalties and fines as well as reputational and financial risks if they are detected for evasion. The findings also conclude that in order to avoid high tax rates and related obligations, older firms frequently use aggressive tax planning techniques, thus creating opportunities for low compliance. Regarding the relationship between industry and non-compliance, the research concludes that non-compliance rates are systemic across all sectors of the economy, financial and insurance firms, construction companies, and manufacturers outperforming players in the wholesale and retail trade, (repair of motor vehicles and motorcycles) sector. Furthermore, the findings reveal that while liquidity levels moderate how age, size, as well as companies in the manufacturing and construction sectors behave when it comes to tax compliance, the effects are not statistically significant. Large corporates in Kenya are considered financially stable and are required to meet their tax obligations notwithstanding their liquidity levels. However, with a health liquidity level, companies in the finance and insurance services sector show improvements in tax compliance.

5.5 Recommendations

Findings point to managerial gaps as potential causes of low compliance among older and larger corporations in Kenya. It reinforces corporate managers as enablers of low tax compliance in older and larger corporations, with managers hiring high tenure auditors to design tax avoidance strategies to maximize revenue and increase their earnings. In this

way, the thesis underscores the vulnerability of developing nations like Kenya, urging stronger tax laws and unilateral and multilateral actions to ensure older and larger corporations pay fair share of corporate taxes.

Since the financial and insurance activities sector is at a higher risk of low compliance, robust tax audits should be encouraged and implemented in the sector to urge tax compliance among players in the sector. While findings emphasize the importance of carefully structuring capital expenditure incentives, they also highlight the need for the tax authority to implement thin capitalization rules to prevent older and larger corporations within Kenya's big four sectors from engaging in aggressive tax avoidance strategies like profit shifting. There is also a need for sector-specific policies that foster growth while lessening tax revenue losses. This may entail limiting broad tax deductions in favour of targeted incentives aligned with growth goals.

Given the unique challenges that inventory-intensive sectors like manufacturing and wholesale and retail trade face in tax planning, the tax authority should consider offering tailored allowances or credits as they have the potential to stimulate compliance and growth. Besides, manufacturing firms are capital-intensive and usually have better access to tax experts, as such the tax authority should encourage the adoption of digital, automated tax systems that can actually heighten compliance.

Moreover, there is a need for strengthening tax audit capacities for large corporations, especially those that present complex tax structures. Investments in technology, training tax authorities, and using third-party audits for older and large companies in Kenya's big-four sectors can improve compliance. These measures will not only improve compliance but also minimise loopholes for tax avoidance.

5.6 Implications for Practice, Policy, Theory, and Academia

5.6.1 For Practice

The findings of the current study have significant implications for practice. Notably, they highlight gaps in practice, including managerial gaps, underscoring the need for the tax authority to prioritise tax education to educate corporate managers on the importance of paying taxes. It also identifies the industries that should be targeted by policy to encourage tax compliance. By highlighting the low tax compliance in the wholesale and repair trade,

repair of motor vehicles and motorcycles, the study identifies the informal sector as another tax base KRA should explore to boost revenue collection.

5.6.2 For Policy

The findings of the current study have significant policy implications. Notably, they indicate that a tax system that is progressive and robust enough can address the issues of low tax compliance and reduce opportunities for tax avoidance and evasion. Kenya's recent tax policies and reforms have focused on tax administration to improve compliance through PIN utilisation and computerisation. They have also focused on incentives, encouraging the continued use of tax holidays allowances. Findings from the current study suggest the need for the tax authority to complement these policy reforms by addressing informal sector taxation and the establishment of special zones to attract investment, especially in the manufacturing sector. As such, developing and implementing sector-specific tax policies that can encourage growth while reducing tax revenue losses could certainly boost compliance. They also point towards reforms in international tax structures to realign tax systems with the digitalized economy, which many corporations are using to shift profits via related-party transactions and intangible assets. This should involve balanced efforts to prevent tax base erosion.

5.6.3 For Theory

The findings of the study also reveal significant theoretical implications. By identifying managers as potential enablers of low tax compliance among older and larger corporations in Kenya, the study fits into broader theories of tax compliance behaviour. For instance, it fits into the agency theory, reinforcing how conflict of interest prompts managers companies to engage in aggressive tax avoidance and evasion strategies. By also acknowledging certain sectors as having specific economic deterrents that encourage tax compliance, the study advances the economic deterrence model establishing a strong background for its theoretical foundation. Besides, by recognising large companies as having economic incentives which act as deterrents against tax noncompliance, the study offers a solid theoretical basis for the economic deterrence model. Typically, the study refines and validates the postulations of economic deterrence models providing a strong foundation to advance these models to the status of theories.

5.6.4 For Academia and Research

With some of the findings contradict previous research, more research is needed to reconcile these differences. For instance, further studies can investigate whether the company characteristics (size, age and particularly industry) affect small and medium-sized enterprises in the same way. Further, tax non-compliance is measured using a wide range of criteria. The payment amount after a tax adjustment was the quantitative metric employed in this investigation. This can be adjusted by future researchers to represent the component of non-compliance they plan to examine, such as the rate of on-time filing of returns, on-time payments, accuracy of returns filed and registration for particular tax obligations. Additional research is also required in order to control for other variables that may have an impact on non-compliance such as the organisational structure, geographical location, debt levels, growth rates, audit controls in place and type of auditors, and ownership dynamics.

5.7 Limitations of the Study

One limitation of this study is that there are many different parameters for gauging tax non-compliance. The current study used only one quantitative measure (additional amount assessed and paid following a tax audit adjustment). Future researchers can tweak this to include other measures of gauging non-compliance e.g. on-time payment rate, on-time filing rate and registration for specific obligations. Another limitation was that the gross sales figure used to estimate firm size may deviate from the true and accurate economic figures due to the possibility of tax evasion by the firms. Lastly, the study could have been broadened to include more corporate characteristics (such as the type of auditor, the ownership structure elements and other firm-specific norms and values) were it not for the constraints relating to the Data protection Act.

REFERENCES

- Abdul, & Wang'ombe. (2018). Income Tax Compliance Behaviour in Kenya: An Application of Structural Equation Modelling. *Research Journal of Finance and Accounting*, 9(6).
- Acheampong, O., Debrah, O., & Yeboah, I. O. (2016). An assessment of tax compliance level of small enterprises in Ghana. *European Journal of Business and Management*, 8(12), 81-89.
- Ahmad, N., Mohd-Nor, J., & Mohd-Saleh, N. (2011). Fraudulent Financial Reporting and Firms' Characteristics: Evidence from Tax Audits. *SSRN Electronic Journal*, 1–21. <https://doi.org/10.2139/ssrn.1158167>
- Ahmad, N., Shah, F. N., Ijaz, F., & Ghouri, M. N. (2023). Corporate income tax, asset turnover and Tobin's Q as firm performance in Pakistan: Moderating role of liquidity ratio. *Cogent Business & Management*, 10(1), 2167287.
- Ahmad, S., Ahmad, W. M. W., & Shaharuddin, S. S. (2022). Is excess of everything bad? Ramifications of excess liquidity on bank stability: Evidence from the dual banking system. *Borsa Istanbul Review*, 22, S92-S107.
- Airout, R. M., Alawaqleh, Q. A., Almasria, N. A., Alduais, F., & Alawaqleh, S. Q. (2023). The moderating role of liquidity in the relationship between the expenditures and financial performance of SMEs: Evidence from Jordan. *Economies*, 11(4), 121.
- Akech, M. (2011). Abuse of power and corruption in Kenya: Will the new constitution enhance government accountability. *Indiana Journal of Global Legal Studies*. 18 (1), 15. Available at: <https://www.repository.law.indiana.edu/ijgls/vol18/iss1/15>
- Akhmadi, A., Nurhayati, E., & Rahmawati, A. (2023). Measuring Liquidity as a Moderating Variable. *International Business and Accounting Research Journal*, 7(1), 64-75.
- Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, 18(3), 91–93. <https://doi.org/10.1016/j.tjem.2018.08.001>
- Al-Dmour, A. H., Abbod, M., & Al-Balqa, N. S. (2018). The impact of the quality of financial reporting on non-financial business performance and the role of organizations demographic attributes (type, size and experience).

- Ali, M., Fjeldstad, O., Sjørusen, I., & Institute, C. (2013). Factors Affecting Tax Compliant Attitude in Africa: Evidence from Kenya, Tanzania, Uganda and South Africa. Centre for the Study of African ..., 1–26. <http://www.cmi.no/publications/file/4727-factors-affecting-tax-compliant-attitude-in-africa.pdf>
- Ali, S., Rangone, A., & Farooq, M. (2022). Corporate Taxation and Firm-Specific Determinants of Capital Structure: Evidence from the UK and US Multinational Firms. *Journal of Risk and Financial Management*, 15(2), 55. <https://doi.org/10.3390/jrfm15020055>
- Alkurdi, A., & Mardini, G. H. (2020). The impact of ownership structure and the board of directors' composition on tax avoidance strategies: empirical evidence from Jordan. *Journal of Financial Reporting and Accounting*, 18(4), 795–812. <https://doi.org/10.1108/jfra-01-2020-0001>
- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of public economics*, 1(3-4), 323-338.
- Al-Mamun, A., Entebang, H., Mansor, S. A., Yasser, Q. R. & Nathan, T. M. (2014). The Impact of Demographic Factors on Tax Compliance Attitude and Behaviour in Malaysia. *Journal of Finance, Accounting and Management*, 5 (1), 109-124.
- Almunia, M., & Lopez-Rodriguez, D. (2018). Under the radar: The effects of monitoring firms on tax compliance. *American Economic Journal: Economic Policy*, 10(1), 1-38.
- Anderson, M. A. (2019). Calculating and interpreting percentage changes for economic analysis. *Applied Economics Teaching Resources (AETR)*, 1(1), 25-31.
- Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of economic literature*, 36(2), 818-860.
- Anggraini, F. A. (2022). Effect of Profitability, Sales Growth and Firm Age on Tax Avoidance. *Asian Journal of Engineering, Social and Health*, 1(1), 36-47.
- Annuar, H. A., Salihu, I. A., & Obid, S. N. S. (2014). Corporate ownership, governance and tax avoidance: An interactive effect. *Procedia-Social and Behavioural Sciences*, 164, 150-160.

- Arend, R. J. (2014). Entrepreneurship and dynamic capabilities: how firm age and size affect the 'capability enhancement–SME performance' relationship. *Small Business Economics*, 42, 33-57.
- Azrina Mohd Yusof, N., Ming Ling, L., & Bee Wah, Y. (2014). Tax non-compliance among SMCs in Malaysia: Tax audit evidence. *Journal of Applied Accounting Research*, 15(2), 215-234.
- Bachas, P., Brockmeyer, A., Dom, R., & Semelet, C. (2023). Effective tax rates and firm size.
- Badertscher, B. A., Katz, S. P., & Rego, S. O. (2013). The separation of ownership and control and corporate tax avoidance. *Journal of accounting and economics*, 56(2-3), 228-250.
- Baltagi, B. H. (2014). Panel data and difference-in-differences estimation. *Encyclopaedia of Health Economics*, 425-433.
- Barako, D. G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan firms. *Corporate Governance: an international review*, 14(2), 107-125.
- Baskerville, R., & Pries-Heje, J. (2010). Explanatory design theory. *Business & Information Systems Engineering*, 2(5), 271-282.
- Bayer, R., & Cowell, F. (2016). Tax compliance by firms and audit policy. *Research in Economics*, 70(1), 38-52.
- Beasley, M. S., Hermanson, D. R., Carcello, J. V., & Neal, T. L. (2010). Fraudulent financial reporting: 1998-2007: An analysis of US public firms.
- Bello, K. B., & Danjuma, I. (2014). Review of models/theories explaining tax compliance behavior.
- Benon, O. P., Baer, K., & Toro, J. (2002). *Improving large taxpayers' compliance: a review of country experience*. International Monetary Fund.
- Bodnar, T., Gupta, A. K., Vitlinskyi, V., & Zabolotsky, T. (2019a). Statistical Inference for the Beta Coefficient. *Risks*, 7(2), 56. <https://doi.org/10.3390/risks7020056>
- Bodnar, T., Gupta, A. K., Vitlinskyi, V., & Zabolotsky, T. (2019b). Statistical Inference for the Beta Coefficient. *Risks*, 7(2), 56. <https://doi.org/10.3390/risks7020056>

- Brody, R. G., Haynes, C. M., & Mejia, H. (2014). Income Tax Return Scams and Identity Theft. *Accounting and Finance Research*, 3(1), 90–95.
<https://doi.org/10.5430/afr.v3n1p90>
- Bruno, R. L. (2019). Tax enforcement, tax compliance and tax morale in transition economies: A theoretical model. *European Journal of Political Economy*, 56, 193-211.
- Budiono, S., & Purba, J. T. (2022). Cross-Sectional Dependency and Panel Unit Root Tests: Foreign Direct Investment in Indonesia.
- Carrillo, P., Castro, E., & Scartascini, C. (2016). Do Rewards Work to Maintain and Increase Tax Compliance? Evidence from the Randomization of Public Goods. *World Bank*. <https://thedocs.worldbank.org/en/doc/334031466186945578-0050022016/original/scartascini.pdf>
- Chytis, E., Tasios, S., Georgopoulos, I., & Hortis, Z. (2019). The relationship between tax avoidance, firm characteristics and corporate governance: Evidence from Greece. *Corporate Ownership and Control*, 16(4), 77-86.
- Classifications, M. I. Matching Industry Classifications. A Method for Converting NACE Rev. 2 To NACE Rev.
- Coad, A. (2018). Firm age: a survey. *Journal of Evolutionary Economics*, 28(1), 13-43.
- Dang, C., Li, Z. F., & Yang, C. (2018). Measuring firm size in empirical corporate finance. *Journal of banking & finance*, 86, 159-176.
- Darsani, P. A., & Sukartha, I. M. (2021). The effect of institutional ownership, profitability, leverage and capital intensity ratio on tax avoidance. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, 5(1), 13-22.
- Delgado, M., Porter, M. E., & Stern, S. (2016). Defining clusters of related industries. *Journal of Economic Geography*, 16(1), 1-38.
- Deloitte Touche Tohmatsu Limited. (2016). *Oil and gas taxation in Kenya*.
- Devos, K. (2013). Factors influencing individual taxpayer compliance behaviour. Springer Science & Business Media.
- Dirman, A. (2020). Financial distress: The impacts of profitability, liquidity, leverage, firm size, and free cash flow. *International Journal of Business, Economics and Law*, 22(1), 17-25.

- Driver, Ciaran & Bo, Hong. (2012). Agency Theory, Corporate Governance, and Finance. 10.4337/9781848446489.00019.
- Du Toit, E. (2015). Characteristics of firms with a higher risk of financial statement fraud: A survey of the literature. *South African Journal of Accounting Research*, 22(1), 19–44. <https://doi.org/10.1080/10291954.2008.11435131>
- Durtschi, C., Hillison, W., & Pacini, C. (2004). The effective use of Benford's Law to assist in detecting fraud in accounting data. December 2014.
- Dwenger, N., Kleven, H., Rasul, I., & Rincke, J. (2016). Extrinsic and Intrinsic Motivations for Tax Compliance: Evidence from a Field Experiment in Germany. *American Economic Journal Economic Policy*, 8(3), 203–232. <https://doi.org/10.1257/pol.20150083>
- Eichfelder, S., & Kegels, C. (2014). Compliance costs caused by agency action? Empirical evidence and implications for tax compliance. *Journal of Economic Psychology*, 40, 200-219.
- Eichfelder, S., & Schorn, M. (2008). Tax compliance costs and its determinants: Evidence from German businesses. *Institute of Accounting and Tax Management*.
- Farhan, N. H., Almaqtari, F. A., Hazaea, S. A., & Al-Ahdal, W. M. (2023). The moderating effect of liquidity on the relationship between sustainability and firms' specifics: Empirical evidence from indian manufacturing sector. *Heliyon*, 9(4).
- Fauziati, P., & Kassim, A. A. M. (2018). The effect of business characteristics on tax compliance costs. *Management Science Letters*, 353–358. <https://doi.org/10.5267/j.msl.2018.4.013>
- Febrianti, V. D., & Saadah, S. (2023). Stock liquidity and stock returns: the moderating role of financial constraints. *Journal of Accounting and Investment*, 24(2), 292-305.
- Fleming, A. S., Hermanson, D. R., Kranacher, M. J., & Riley Jr, R. A. (2016). Financial reporting fraud: Public and private firms. *Journal of Forensic Accounting Research*, 1(1), A27-A41.
- Ghani, N. A. M. Y., Lai, M. L., & Yap, B. W. (2012). Tax non-compliance: Evidence from finalized corporate tax audited cases in 2010. ICIMTR 2012 - 2012

- International Conference on Innovation, Management and Technology Research, 694–698. <https://doi.org/10.1109/ICIMTR.2012.6236484>
- González, F. A. I. (2020). Self-reported income data: are people telling the truth? *Journal of Financial Crime*, 27(4), 1349–1359. <https://doi.org/10.1108/JFC-08-2019-0113>
- Govil, R. (2014). Exchange rates: Concepts, measurements and assessment of competitiveness. IMF Regional Training Institute Bangkok Thailand November.
- Hansford, A., & Hasseldine, J. (2012). Tax compliance costs for small and medium sized enterprises: the case of the UK. *eJTR*, 10, 288.
- Haralayya, B. (2021). Working capital management at TVS motors, Bidar. *Iconic Research and Engineering Journals*, 4(12), 255-265.
- Harris, L. (2003). Trading and exchanges: Market microstructure for practitioners. OUP USA.
- Hasanuddin, R., Darman, D., Taufan, M. Y., Salim, A., Muslim, M., & Putra, A. H. P. K. (2021). The effect of firm size, debt, current ratio, and investment opportunity set on earnings quality: an empirical study in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(6), 179-188.
- Hassan, N., Masum, M. H., & Sarkar, J. B. (2022). Ownership structure and corporate tax avoidance: Evidence from the listed firms of Bangladesh. *Polish Journal of Management Studies*, 25(1), 147-161.
- Hibbs, D. A., & Piculescu, V. (2010). Tax toleration and tax compliance: How government affects the propensity of firms to enter the unofficial economy. *American Journal of Political Science*, 54(1), 18-33.
- Hipson, W. E., & Séguin, D. G. (2017). Goodness of Fit Model. *Encyclopedia of Personality and Individual Differences*, 1–3. https://doi.org/10.1007/978-3-319-28099-8_757-1
- http://books.google.ie/books?id=EYrEBAAQBAJ&pg=PR6&dq=978-94-007-7475-9&hl=&cd=1&source=gbs_api
- <https://kesic.labourmarket.go.ke/kesic-classic-segments/>
- Huseyin, E. (2023). Financial performance metrics in family vs non-family CEOs of family-owned firms. *Journal of Policy Options*, 6(2), 1-8.

- Hyndman, Rob J and George Athanasopoulos. 2018. *Forecasting: Principles and Practice*, 2nd Edition.
- Ikhsan, S., -, R., & Suratman, E. (2023, January 11). Demographic Characteristics and Tax Compliance. *Asian Journal of Social Science Studies*, 8(1), 1. <https://doi.org/10.20849/ajsss.v8i1.1322>
- Indriani & Juniarti (2020). The Influence of Firm Size, Firm Age, Sales Growth, and Profitability on Tax Avoidance.
- Isik, O., Unal, E. A., & Unal, Y. (2017). The effect of firm size on profitability: evidence from Turkish manufacturing sector. *Journal of Business Economics and Finance*, 6(4), 301-308.
- Jain, M. P., Sharma, A., & Kumar, M. (2022). Recapitulation of demand-pull inflation & cost-push inflation in an economy. *Journal of Positive School Psychology*, 2980-2983.
- James, S., & Alley, C. (2002). Tax compliance, self-assessment and tax administration.
- Janse, R. J., Hoekstra, T., Jager, K. J., Zoccali, C., Tripepi, G., Dekker, F. W., & Van Diepen, M. (2021). Conducting correlation analysis: important limitations and pitfalls. *Clinical Kidney Journal*, 14(11), 2332–2337. <https://doi.org/10.1093/ckj/sfab085>
- Jhangiani, & Tarry. (2022). *Principles of Social Psychology – 1st International H5P Edition*.
- Jones, G. P., Stambaugh, C., Stambaugh, N., & Huber, K. E. (2023a). Analysis of variance. *Translational Radiation Oncology*, 171–177. <https://doi.org/10.1016/b978-0-323-88423-5.00041-8>
- Jones, G. P., Stambaugh, C., Stambaugh, N., & Huber, K. E. (2023b). Analysis of variance. *Translational Radiation Oncology*, 171–177. <https://doi.org/10.1016/b978-0-323-88423-5.00041-8>
- Jones, T., Baxter, M., & Khanduja, V. (2013, January). A Quick Guide to Survey Research. *The Annals of The Royal College of Surgeons of England*, 95(1), 5–7. <https://doi.org/10.1308/003588413x13511609956372>

- Kamau, S. K. (2014). The Adoption of Technology as Strategic Tool in Enhancing Tax Compliance in Kenya: A Case Study of Large Taxpayers of Kenya Revenue Authority
- Kartikaningdyah, E. (2019). The effect of firm size, ROA and executive character on tax avoidance. In *1st International Conference on Applied Economics and Social Science (ICAESS 2019)* (pp. 238-245). Atlantis Press.
- Keeves, J. P. (1987). Longitudinal research methods. In *Economics of Education* (pp. 369-382). Pergamon.
- Kenya Revenue Authority (2018). Annual Corporate Plan, 2018, Kenya Revenue Authority
- Kenya Revenue Authority (2021). Annual Corporate Plan, 2021, Kenya Revenue Authority
- Kenya Revenue Authority [KRA]. (2024). Tax Avoidance and Tax Evasion: A Tale of Two Errors
- Khan, M., Srinivasan, S., & Tan, L. (2017). Institutional ownership and corporate tax avoidance: New evidence. *The Accounting Review*, 92(2), 101-122.
- Khurshid, A. (2015). The effect of interest rate on investment; Empirical evidence of Jiangsu Province, China. *Journal of International Studies* Vol, 8(1).
- Kim, E. H., Lu, Y., Shi, X., & Zheng, D. (2022). How does stock liquidity affect corporate tax noncompliance? Evidence from China☆. *Journal of Comparative Economics*, 50(3), 688-712.
- Kimea, A. J., Mkhize, M., & Maama, H. (2023, May 14). Firm-specific Determinants of Aggressive Tax Management among East African Firms. *International Journal of Economics and Financial Issues*, 13(3), 100–108. <https://doi.org/10.32479/ijefi.13476>
- Kim, E. H., Lu, Y., Shi, X., & Zheng, D. (2022). How does stock liquidity affect corporate tax noncompliance? Evidence from China. *Journal of Comparative Economics*, 50(3), 688-712.
- Kipkoech, K. D., & Joel, T. (2016). Effect of economic factors on tax compliance in Kenya: A survey of limited liability companies within Eldoret

- municipality. *Journal of International Business Research and Marketing*, 1(2), 18-22.
- Kipsang, I. (2004). A History of the Direct Taxation of the African People of Kenya, 1895-1973. Rhodes University.
- Koutsoyiannis, D., & Montanari, A. (2015). Negligent killing of scientific concepts: the stationarity case. *Hydrological Sciences Journal*, 60(7-8), 1174-1183.
- Laflèche, T., & Armour, J. (2006). Evaluating measures of core inflation. *Bank of Canada Review*, 2006(Summer), 19-29.
- Laili, R. N., & Dalimunthe, S. (2022). The impact of liquidity on the capital structure of construction companies. *Global Advances in Business Studies*, 1(2), 94–103. <https://doi.org/10.55584/gabs.001.02.4>
- Lee, H. A. (2016). The usefulness of the tax avoidance proxy: Evidence from Korea. *Journal of Applied Business Research (JABR)*, 32(2), 607-620.
- Lee, H. B. (2008). Using the Chow test to analyze regression discontinuities. *Tutorials in Quantitative Methods for Psychology*, 4(2), 46-50.
- Lein, R. L. (2023). *Effects Of Liquidity on Firm Performance: A Case Of The Commercial And Services Firms Listed At The Nairobi Securities Exchange* (By United States International University-Africa & Chandaria School of Business) [Thesis].
- Lekake, M. N. (2020). The Impact of Corporate Governance on Tax Compliance in Kenya: a Case Study of the Transport Industry (Doctoral dissertation, university of Nairobi).
- Loderer, C. F., & Waelchli, U. (2010). Firm age and performance. *Available at SSRN 1342248*.
- Lonkani, R. (2018). Firm value. Firm value: Theory and empirical evidence, 1.
- Leroy, M. (2011). The concrete rationality of taxpayers. *Sociologia del diritto*: 2, 2011, 33-60.
- Luttmer, E. F., & Singhal, M. (2014). Tax morale. *Journal of economic perspectives*, 28(4), 149-168.
- Martinez, A. L., Finck Gabler, L., Formigoni, H., & Santos, L. P. (2023). The Moderating Effect of Tax Incentives on Effective Tax Rates and Cash Holdings in Brazilian Non-Financial Firms Listed on B3. *Available at SSRN 4444176*.

- Mascagni, G., & Mengistu, A. (2019). Effective tax rates and firm size in Ethiopia. *Development Policy Review*, 37, O248-O273.
- Matarirano, O., Makina, D., & Chiloane-Tsoka, G. E. (2019). Tax compliance costs and small business performance: Evidence from the South African construction industry. *South African Journal of Business Management*, 50(1), 1-9.
- Meckling, W. H., & Jensen, M. C. (1976). Theory of the Firm. *Managerial Behavior, Agency Costs and Ownership Structure*.
- Moyi, E., & Ronge, E. (2006). Taxation and tax modernization in Kenya: A diagnosis of performance and options for further reform.
- Mukhlis, I., & Simanjuntak, T. H. (2016). Tax compliance for businessmen of micro, small and medium enterprises sector in the regional economy. *International journal of Economics, commerce and management*, 4(9), 116-126.
- Mumo, S. M. (2019). Firm characteristics and value added tax compliance on construction firms in Kenya: a survey of Starehe sub-county, Nairobi Kenya.
- Murunga, A., Prof. Charles M. Rambo, & Dr. John M. Mbugua. (2023). Liquidity Risk Management Practices and Performance of Real Estate Construction Projects in Busia County, Kenya [Journal-article]. *African Development Finance Journal*, 5(2), 78–99. <http://journals.uonbi.ac.ke/index.php/adfj>
- Musimenta, D., Naigaga, S., Bananuka, J., & Najjuma, M. S. (2019). Tax compliance of financial services firms: a developing economy perspective. *Journal of Money Laundering Control*, 22(1), 14-31.
- Naitili, S. L., Hambali, A. J. H., & Nurofik, N. (2021). Tax incentives and taxpayer compliance of micro, small and medium enterprises: The moderating role of tax literacy. *Journal of Economics, Business, & Accountancy Ventura*, 24(3), 420-430.
- Nguyen, L. T., Nguyen, A. H. V., Le, H. D., Le, A. H., & Truong, T. T. V. (2020). The factors affecting corporate income tax non-compliance: A case study in Vietnam. *The Journal of Asian Finance, Economics and Business (JAFEB)*, 7(8), 103-115.

- Nigrini, M. J. (2019). The patterns of the numbers used in occupational fraud schemes. *Managerial Auditing Journal*, 34(5), 602–622. <https://doi.org/10.1108/MAJ-11-2017-1717>
- Ogunfunmilayo, T. A. (2020). Determinants of Voluntary Tax Compliance Among Small and Medium Scale Enterprise (SME) Owners in Oyo State, Nigeria (Master's thesis, Kwara State University (Nigeria).
- Okpeyo, E. T., Musah, A., & Gakpetor, E. D. (2019). Determinants of tax compliance in Ghana. *Journal of Applied Accounting and Taxation*, 4(1), 1-14.
- Onyango, M., Nyamute, W., & Wanjare, J. (2023). Effect of Liquidity on the relationship between Dividend Policy and Value of firms Listed at the Nairobi Securities Exchange. *African Development Finance Journal*, 5(1), 53-70.
- Orkaido Deyganto, K. (2018, August). Factors Influencing Taxpayers' Voluntary Compliance Attitude with Tax System: Evidence from Gedeo Zone of Southern Ethiopia. *Universal Journal of Accounting and Finance*, 6(3), 92–107. <https://doi.org/10.13189/ujaf.2018.060302>
- Osoro, J., & Kiplangat, J. (2022). Bank Liquidity-Profitability Trade-Offs as an adjustment to systemic shocks. In *Kenya Bankers Association* (p. 2) [Report]. Centre For Research on Financial Markets and Policy. <https://www.kba.co.ke/wp-content/uploads/2022/05/PB022022-Bank-Liquidity-Profitability-Trade-Offs-as-an-Adjustment-to-Systemic-Shocks.pdf>
- Otieno, B. A. (2014). The relationship between ownership structure and tax avoidance of firms listed at the Nairobi Securities Exchange (Doctoral dissertation, University of Nairobi).
- Ozdemir, O. (2017). An examination of daughter succession in Turkish family-owned businesses: Gendered norms, cultural influence and leadership challenges.
- Paleka, H., Karanović, G., & Štambuk, A. (2023, December 1). The Direct and Moderating Effect of Sociodemographic Variables on Tax Compliance Behaviour. *South East European Journal of Economics and Business*, 18(2), 34–48. <https://doi.org/10.2478/jeb-2023-0017>
- Patel, N., & Villar, A. (2016). *Measuring inflation*. BIS Paper, (89b).

- Peterson, K. (2023). The acceptable R-square in empirical modelling for social science research. *Munich Personal RePEc Archive*. https://mpra.ub.uni-muenchen.de/115769/1/MPRA_paper_115769.pdf
- Pfaffermayr, M., Stöckl, M., & Winner, H. (2013). Capital structure, corporate taxation and firm age. *Fiscal Studies*, 34(1), 109-135.
- Plümper, T., & Troeger, V. E. (2019). Not so harmless after all: The fixed-effects model. *Political Analysis*, 27(1), 21-45.
- Pratama, A. (2018). How Do Indonesian Companies Select Their External Auditors? Exploratory Analysis of Company Characteristics, Corporate Governance, and Organisational Complexity. *Review of Integrative Business and Economics Research*, 7(4), 63-76.
- Republic of Kenya (2022). National Tax Policy
- Ruspini, E. (1999). Longitudinal research and the analysis of social change. *Quality and Quantity*, 33, 219-227.
- Sains Humanika, 2(3). Benno Torgler What Do We Know about Tax Fraud? An Overview of Recent Developments. (2008). 75(4), 1239–1270.
- Salaudeen, Y. M., & Abdulwahab, S. S. (2022). Corporate Governance Mechanism and Tax Compliance: The Nigerian Experience. *European Journal of Business and Management Research*, 7(2), 45-54.
- Salaudeen, Y. M., & Ejeh, B. U. (2018). Equity ownership structure and corporate tax aggressiveness: the Nigerian context. *Research journal of Business and Management*, 5(2), 90-99.
- Salman, K. R. (2023). Exploring moral hazard and adverse selection in profit sharing contract. *International Journal of Professional Business Review*, 8(3), 1-16.
- Sari, D. (2021). The effect of leverage, profitability and firm size on tax avoidance (an empirical study on mining sector firms listed on Indonesia Stock Exchange Period 2013-2019). *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(4), 860-868.
- Satria, F., & Lunardi, A. (2023). The effect of sales growth, profitability and firm age toward tax avoidance on consumer goods companies listed on the Indonesia stock exchange. *International Journal of Social, Policy and Law*, 4(1), 41-49.

- Saxunova, D., & Szarkova, R. (2017). Tax Management Hierarchy - Tax Fraud and a Fraudster. In Management International Conference (pp. 633-644).
- Schober, P., Boer, C., & Schwarte, L. A. (2018a). Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia & Analgesia*, 126(5), 1763–1768. <https://doi.org/10.1213/ane.0000000000002864>
- Schober, P., Boer, C., & Schwarte, L. A. (2018b). Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia & Analgesia*, 126(5), 1763–1768. <https://doi.org/10.1213/ane.0000000000002864>
- Schoeman. (2023). The impact of demographic variables on value-added tax compliance in South Africa. *EJournal of Tax Research*, 20(22), 272–296.
- Seibold, L. K. (2020). *Family businesses' growth*. Wiesbaden: Springer Gabler.
- Siegel, F. (2016). Practical Business Statistics. *Academic Press*. <https://doi.org/10.1016/c2015-0-00463-4>
- Sirengo, J. (2008). *Determinants of Kenya's fiscal performance*. Macroeconomics Division, Kenya Institute for Public Policy Research and Analysis.
- Sopiyana, M. (2022). The effect of leverage and firm size on tax avoidance with profitability as moderating. *Scientific Journal of Reflection: Economic, Accounting, Management and Business*, 5(1), 29-37.
- Sudiyatno, B., & Suwarti, T. (2022). The Role of Liquidity in Determining Firm Performance: An Empirical Study on Manufacturing Companies in Indonesia. *European Journal of Business and Management Research*, 7(6), 183-188.
- Sun, J., Kent, P., Qi, B., & Wang, J. (2019). Chief financial officer demographic characteristics and fraudulent financial reporting in China. *Accounting & Finance*, 59(4), 2705-2734.
- Sureiman, O., & Mangera, C. (2020). F-test of overall significance in regression analysis simplified. *Journal of the Practice of Cardiovascular Sciences*, 6(2), 116. https://doi.org/10.4103/jpcs.jpcs_18_20
- Tang, T. Y. (2020). A review of tax avoidance in China. *China Journal of Accounting Research*, 13(4), 327-338.

- Tansuria, B. I., & Nelwan, M. L. (2022). Level of Firm Ownership and Tax Planning Practices: Evidence from Indonesia. *Open Journal of Accounting*, 11(2), 126-148.
- Tennant, S. N., & Tracey, M. R. (2019). Corporate profitability and effective tax rate: The enforcement effect of large taxpayer units. *Accounting and Business Research*, 49(3), 342-361.
- Teguh, K. M., & Kristanto, A. B. (2020). Firm characteristics and the tendency of fraudulent financial reporting. *Jurnal Akuntansi Bisnis*, 13(2).
- Wakil, G. (2020). Firm size proxies and the value relevance of predictive stock return models. *Journal of Economics and Finance*, 44(3), 434-457.
- Watts, R. L., & Zimmerman, J. L. (1986). Positive accounting theory.
- Watts, R. L., & Zimmerman, J. L. (1990). Positive accounting theory: A ten-year perspective. *Accounting review*, 131-156.
- Wooldridge, Jeffrey M. 2012. *Introductory Econometrics: A Modern Approach*, Fifth Edition.
- Xu, Y., Zhang, L., & Chen, H. (2018). Board age and corporate financial fraud: An interactionist view. *Long Range Planning*, 51(6), 815-830.
- Yahaya, K. A., & Yusuf, K. (2020). Impact of firm characteristics on aggressive tax avoidance in Nigerian listed insurance firms. *Jurnal Administrasi Bisnis*, 9(2), 101-111.
- Yahaya, K. A., & Yusuf, K. (2020). Impact of firm characteristics on aggressive tax avoidance in Nigerian listed insurance firms. *Jurnal Administrasi Bisnis*, 9(2), 101-111.
- Ya'u, A., Saad, N., & Mas' ud, A. (2020). Effects of economic deterrence variables and royalty rates on petroleum profit tax compliance in Nigeria: An empirical analysis. *International Journal of Energy Sector Management*, 14(6), 1275-1296.
- Yu, J. (2023). Tax structure and corporate tax compliance: evidence from China. *Economic Research-Ekonomska Istraživanja*, 36(1).
<https://doi.org/10.1080/1331677x.2022.2080736>
- Zimon, G., Nakonieczny, J., Chudy-Laskowska, K., Wójcik-Jurkiewicz, M., & Kočański, K. (2021). An Analysis of the Financial Liquidity Management

Strategy in Construction Companies Operating in the Podkarpackie Province.
Risks, 10(1), 5. <https://doi.org/10.3390/risks10010005>

Zulfikar, R., & STp, M. M. (2018). Estimation model and selection method of panel data regression: An overview of common effect, fixed effect, and random effect model. *JEMA: Jurnal Ilmiah Bidang Akuntansi*, 9(2), 1-10.

APPENDICES

Appendix 1: Ethical Clearance Letter



15th August 2024

Ms Moindi Winnie,

winniekmoindi@gmail.com

Dear Ms Moindi,

RE: The Relationship between Firm Characteristics and Tax Compliance in Large Corporates in Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2349/24**. The approval period is from **15th August 2024 to 14th August 2025**.

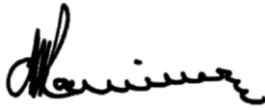
This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU- ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.

- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SUIERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://researchportal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,



Mr Ambrose Rachier, Chairperson; SU-ISERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

Appendix 2: Similarity Report

Strathmore University (Main Account)

Dissertation - March 2026 - Winnie Moindi.docx

Document Details

Submission ID

trn:oid:::2945:362675736

Submission Date

Mar 6, 2026, 5:46 PM GMT+3

Download Date

Mar 6, 2026, 6:07 PM GMT+3

File Name

Dissertation - March 2026 - Winnie Moindi.docx

File Size

9.5 MB

172 Pages

42,303 Words

247,248 Characters

Page 1 of 189 - Cover Page Submission ID trn:oid:::2945:362675736

Page 1 of 189 - Cover Page Submission ID trn:oid:::2945:362675736

9% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

Bibliography

Quoted Text

Exclusions

8 Excluded Sources

Match Groups

328 Not Cited or Quoted 9%

Matches with neither in-text citation nor quotation marks

29 Missing Quotations 1%

Matches that are still very similar to source material

0 Missing Citation 0%

Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%

Matches with in-text citation present, but no quotation marks

Top Sources

6% Internet sources

6% Publications

8% Submitted works (Student Papers)

Page 2 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736

Page 2 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736

Match Groups

328 Not Cited or Quoted 9%

Matches with neither in-text citation nor quotation marks

29 Missing Quotations 1%

Matches that are still very similar to source material

0 Missing Citation 0%

Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%

Matches with in-text citation present, but no quotation marks

Top Sources

6% Internet sources

6% Publications

8% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

Internet

su-plus.strathmore.edu <1%

Internet

ir.jkuat.ac.ke <1%

Internet

ir-library.ku.ac.ke <1%

Submitted works

Strathmore University (Main Account) on 2025-11-03 <1%

Internet

portal.citn.org <1%

Internet

repository.lcu.edu.ng <1%
Submitted works

Institute of Graduate Studies, UiTM on 2013-12-30 <1%
Internet

ikesra.kra.go.ke <1%
Submitted works

Al-Madinah International University (MEDIU) on 2026-02-24 <1%
Submitted works

University of Central Lancashire on 2022-11-04 <1%
Page 3 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Page 3 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Publication

Shirichena, Kumbulani. "Monetary Policy in the SADC Region : The Nexus Between... <1%
Submitted works

Middlesex University on 2025-12-09 <1%
Submitted works

University of Bradford on 2023-09-06 <1%
Internet

ir.ucc.edu.gh <1%
Internet

labourmarket.go.ke <1%
Submitted works

Florida International University on 2024-03-22 <1%
Submitted works

University of Hull on 2023-09-07 <1%
Internet

repository.nwu.ac.za <1%
Submitted works

Federal Polytechnic, Ilaro on 2025-09-13 <1%
Submitted works

Federal Polytechnic, Ilaro on 2025-09-20 <1%
Submitted works

Swiss Management Center on 2016-09-06 <1%
Submitted works

Strathmore University (Main Account) on 2025-11-28 <1%
Internet

irlib.ambou.edu.et <1%
Internet

ir.mu.ac.ke:8080 <1%
Page 4 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Page 4 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Submitted works

Hull College, Humberside on 2024-04-30 <1%
Internet

accsaglobal.org <1%
Publication

Bijan Vasigh, Javad Gorjidoz. "Engineering Economics for Aviation and Aerospace... <1%
Internet

journalarticle.ukm.my <1%
Submitted works

KCA University on 2020-06-20 <1%
Publication

Hurriyati Ratih, Tjahjono Benny, GafarAbdullah Ade, Sulastri, Lisnawati. "Advance... <1%
Submitted works

Walter Sisulu University on 2017-03-01 <1%
Internet

etd.uum.edu.my <1%
Submitted works

Columbus State Community College on 2023-10-14 <1%
Submitted works

Curtin University of Technology on 2023-05-06 <1%
Submitted works

Midlands State University on 2022-06-29 <1%
Internet

knepublishing.com <1%
Submitted works

nileuniversity on 2024-05-28 <1%
Publication

Nor Azrina Mohd Yusof Ghani, Ming Ling Lai, Bee Wah Yap. "Tax non-compliance: ... <1%
Page 5 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Page 5 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736

Submitted works
University of Bradford on 2024-08-31 <1%
 Internet
repository.aaup.edu <1%
 Submitted works
Hull College, Humberside on 2024-04-18 <1%
 Submitted works
University of Dundee on 2024-08-12 <1%
 Publication
"Business Sustainability with Artificial Intelligence (AI): Challenges and Opportuni... <1%
 Publication
Deby Dewanty Daulay, Khaira Amalia Fachrudin, Amlys Syahputra Silalahi. "Comp... <1%
 Submitted works
IESEG School of Management on 2025-12-09 <1%
 Publication
Indra Pahala, Suherman Suherman, Titis Fatarina Mahfirah, Rosle Mohidin et al. "... <1%
 Publication
Ioannis Stamatopoulos, Stamatina Hadjidema, Konstantinos Eleftheriou. "Corpor... <1%
 Submitted works
KCA University on 2024-03-21 <1%
 Submitted works
UNIVERSITY OF LUSAKA on 2022-02-01 <1%
 Submitted works
University of Hull on 2019-12-10 <1%
 Submitted works
University of Nairobi on 2020-07-24 <1%
 Internet
researchspace.ukzn.ac.za <1%
 Page 6 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Page 6 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Internet
www.ijmcer.com <1%
 Submitted works
Universiti Teknologi MARA on 2021-01-05 <1%
 Internet
www.yumpu.com <1%
 Publication
Babes-Bolyai University <1%
 Publication
Dixon, Heinrich Johannes. "An Assessment of the Tax Compliance Costs of Small, ... <1%
 Submitted works
University Der Es Salaam on 2025-01-24 <1%
 Submitted works
Universität Luzern on 2015-10-07 <1%
 Submitted works
universititeknologimara on 2025-08-14 <1%
 Internet
www.edocs.maseno.ac.ke <1%
 Internet
www.researchgate.net <1%
 Publication
"Data-Driven Decision Making for Sustainable Business Growth", Springer Scienc... <1%
 Submitted works
American University of Nigeria on 2025-11-15 <1%
 Submitted works
Kenyatta University on 2021-04-15 <1%
 Publication
Nkosi, Sibusiso Nkosinathi. "Factors Mediating the Relationship Between Capital ... <1%
 Page 7 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Page 7 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Publication
Noorsakinah, Abdul Wahab. "The Dynamic of Corporate Social Responsibility, Tru... <1%
 Publication
Ogunfunmilayo, Taofeek Ajao. "Determinants of Voluntary Tax Compliance Amon... <1%
 Submitted works
University of Leicester on 2017-07-03 <1%
 Publication
Veeriah, Jeyasushma. "The Relationship Between Principal Transformational Lead... <1%
 Submitted works
Ignatius Ajuru University of Education on 2022-05-02 <1%
 Submitted works

KCA University on 2020-09-17 <1%
Submitted works

Kenyatta University on 2022-10-11 <1%
Submitted works

Universitas Kristen Satya Wacana on 2025-10-10 <1%
Submitted works

Universiti Malaysia Sabah on 2026-02-23 <1%
Submitted works

University of Stellenbosch, South Africa on 2026-01-18 <1%
Submitted works

universiteknologimara on 2025-06-14 <1%
Publication

Alfira Mulya Astuti, Pizatul Islamiyah, Achmad Syahrul Choir, Mohd Afifi Bahurudi... <1%
Submitted works

Durban University of Technology on 2022-01-26 <1%
Publication

Moses Olanisebe, Sadiq Abdullahi, Kabiru Dandago. "Managerial Ownership and ... <1%
Page 8 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Page 8 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Publication

Smulders, Sharon Ann. "An Evaluation of Tax Compliance Costs and Concessions f... <1%
Internet

virtusinterpress.org <1%
Publication

"The Future of Accounting and Finance", Springer Science and Business Media LL... <1%
Submitted works

De La Salle University - Manila on 2024-12-05 <1%
Publication

Jessica Dhea Syarendra, Ari Budi Kristanto. "Environmental Uncertainty, Manager... <1%
Submitted works

Republic of the Maldives on 2024-12-09 <1%
Submitted works

Robert Kennedy College on 2025-04-16 <1%
Publication

Sibanda, Mthokozisi. "The Impact of Capital Structure on the Profitability of the I... <1%
Submitted works

Universiti Malaysia Sabah on 2021-03-02 <1%
Internet

economicsrs.com <1%
Internet

journals.ue.poznan.pl <1%
Internet

repository.kemu.ac.ke:8080 <1%
Submitted works

Pentecost University College on 2016-04-21 <1%
Submitted works

University of Bolton on 2023-11-03 <1%
Page 9 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Page 9 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
Publication

Badri Munir Sukoco, Rahmat Heru Setianto, Nidya Ayu Arina, Ade Gafar Abdullah,... <1%
Submitted works

Da Vinci Institute on 2025-08-27 <1%
Publication

Epstein, Lita; Schneider, Arnold. "Accounting for Healthcare Professionals, 2e", Zo... <1%
Publication

Felisberto, Francisco Luis. "Equity Research: The Goldman Sachs Group, Inc.", Uni... <1%
Publication

Gemma Cremen, Erica Seville, Jack W. Baker. "Modeling post-earthquake busines... <1%
Submitted works

Heriot-Watt University on 2024-04-01 <1%
Submitted works

KCA University on 2023-09-10 <1%
Publication

Kazeem A. SOYINKA, Olugbenga JINADU, Olufemi O. DABO, Oluwafemi M. SUNDA... <1%
Publication

Matumba, Lindelani. "An Investigation into Equity Market Timing Practices by So... <1%
Submitted works

University of Derby on 2023-08-21 <1%
Submitted works

University of the West Indies on 2016-09-15 <1%

Internet
cdn.unicafe.org <1%
Internet
ejournals.umn.ac.id <1%
Submitted works
Asia Pacific University College of Technology and Innovation (UCTI) on 2024-07-22 <1%
Page 10 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Page 10 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Publication
Chirinda, Brantina. "The Development of Mathematical Problem Solving Skills of ... <1%
Submitted works
Coventry University on 2018-08-20 <1%
Submitted works
De La Salle University - Manila on 2025-12-03 <1%
Internet
www.coursehero.com <1%
Submitted works
Accra Business School on 2025-09-10 <1%
Submitted works
Columbus State Community College on 2023-10-13 <1%
Publication
Dzvairo, Abraham. "An Ubuntu Leadership and Management Framework For Fam... <1%
Publication
Floyd Khoza. "The Impact of Liquidity and Leverage on the Financial Performance... <1%
Submitted works
KCA University on 2022-09-08 <1%
Submitted works
Kenyatta University on 2024-09-02 <1%
Submitted works
Kolej Universiti INSANIAH on 2025-12-30 <1%
Publication
R. Iqbal Robbie, Ali Roziqin, Shannaz Mutiara Deniar, Ardik Praharjo, Kenny Roz. "... <1%
Submitted works
UNICAF on 2024-07-10 <1%
Submitted works
Universidade Federal de Itajubá, UNIFEI on 2025-10-25 <1%
Page 11 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Page 11 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Submitted works
University of Kufa on 2025-07-02 <1%
Submitted works
University of Venda on 2018-01-30 <1%
Internet
library.calsouthern.edu <1%
Internet
rbe.uskt.edu.pk <1%
Internet
www.mdpi.com <1%
Publication
Asani, Lawrance Abdullah. "The Relationship Between Good Governance and Eco... <1%
Submitted works
California State University, Sacramento on 2019-07-18 <1%
Publication
Donald Rutherford. "Routledge Dictionary of Economics", Routledge, 2013 <1%
Publication
Doreen Musimenta, Sylvia Naigaga, Juma Bananuka, Mariam Ssemakula Najjuma... <1%
Publication
Grant Richardson, Grantley Taylor, Roman Lanis. "The impact of financial distress... <1%
Submitted works
Kofi Annan International Peacekeeping Training Centre on 2023-06-20 <1%
Publication
Najib H.S. Farhan, Faozi A. Almaqtari, Saddam A. Hazaea, Waleed M. Al-ahdal. "Th... <1%
Submitted works
Saint Paul University on 2021-03-31 <1%
Publication
Schollmeier, Ryan Daniel. "Examining Policy-Related Issues and Their Effect on La... <1%
Page 12 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Page 12 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Submitted works
Universiti Teknologi MARA on 2021-06-16 <1%
Submitted works

University of Hull on 2024-09-26 <1%
Submitted works

University of Southern Mississippi on 2021-05-04 <1%
Internet

carijournals.org <1%
Internet

edoc.pub <1%
Internet

hdl.handle.net <1%
Internet

ijsshr.in <1%
Internet

journals.umm.edu.ng <1%
Internet

repositori.uma.ac.id <1%
Internet

www.scribd.com <1%
Publication

"Innovation, Technologies, and Business Management (ICTIM)", Springer Science ... <1%
Submitted works

Administrative Staff on 2026-02-25 <1%
Submitted works

Asia Pacific University College of Technology and Innovation (UCTI) on 2020-05-28 <1%
Submitted works

Asia Pacific University College of Technology and Innovation (UCTI) on 2020-10-07 <1%
Page 13 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Page 13 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Submitted works

Asia Pacific University College of Technology and Innovation (UCTI) on 2025-09-17 <1%
Publication

Beepat, Ved Prakashsing. "Organisational Capabilities as Competitive Strategies f... <1%
Publication

Bornman, Marina. "Principles for Understanding, Encouraging, and Rewarding Vo... <1%
Publication

Chimuchiti, Never. "The Relationship Between Cash Flow and Share Prices of Gen... <1%
Submitted works

Copperbelt University on 2025-08-22 <1%
Publication

Desmiyawati Desmiyawati, Vince Ratnawati, Nur Azlina, Andewi Rokhmawati. "Fa... <1%
Publication

Dwi Irawan, Agung Prasetyo, Nugroho Wicaksono, Aviani Widyastuti, Rizki Febria... <1%
Submitted works

Glasgow Caledonian University on 2023-04-12 <1%
Submitted works

Kofi Annan International Peacekeeping Training Centre on 2023-06-14 <1%
Submitted works

Kwame Nkrumah University of Science and Technology on 2025-07-23 <1%
Publication

Monageng, Nompumelelo Lorraine. "The Effect of Reciprocity Nudges on Tax Co... <1%
Publication

Musa Abdu, Adamu Jibir, Tasiu Muhammad. "Analysis of Tax Compliance in Sub-S... <1%
Publication

Namunane, Silver. "Taxes, Employment Growth and Firm Behavior in Uganda", U... <1%
Publication

Prianto Budi Saptono, Ismail Khozen. "What determines the tax compliance inten... <1%
Page 14 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Page 14 of 189 - Integrity Overview Submission ID trn:oid::2945:362675736
Publication

Schoeman, Anculien. "The Effects of Changes in the Value-Added Tax Rate on Tax ... <1%
Publication

Sibindi, Mkhululi. "Internationalisation Theories and Outward Foreign Direct Inve... <1%
Publication

Stark, Karen. "An Assessment of the Tax Compliance Costs of Individual Taxpayer... <1%
Publication

Tantri, Prasanna. "Consequences of Government Intervention in Business: Eviden... <1%
Publication

Toerien, Franz Eduard. "The Value Relevance of Derivatives for South African Liste... <1%
Submitted works

Universiti Utara Malaysia on 2010-08-09 <1%
Submitted works

University Der Es Salaam on 2021-10-13 <1%

Submitted works
University of Gloucestershire on 2016-10-07 <1%
 Submitted works
University of Manouba on 2024-03-03 <1%
 Submitted works
University of Southampton on 2025-12-12 <1%
 Internet
ir.kabarak.ac.ke <1%
 Internet
jim.unsyiah.ac.id <1%
 Internet
jssidoi.org <1%
 Internet
openscholar.dut.ac.za <1%
 Page 15 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Page 15 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Internet
publishing.globalcsrc.org <1%
 Internet
www.ipm2kpe.or.id <1%
 Submitted works
Accra Business School on 2025-06-03 <1%
 Publication
Harold Andrew Patrick, Ravichandran Krishnamoorthy. "Applied Research for Gro... <1%
 Submitted works
Kofi Annan International Peacekeeping Training Centre on 2023-12-29 <1%
 Publication
Olusegun Vincent. "Assessing SMEs tax non-compliance behaviour in Sub-Sahara... <1%
 Publication
Pringle, Kimberly D.. "Empowering Student Success Through Transformational Ac... <1%
 Publication
Salleh Mohd Radzi, Mohd Hafiz Mohd Hanafiah, Norzuwana Sumarjan, Zurinawati... <1%
 Publication
Shabbir, Asma. "Role of Operating Cash Flows, Earnings & Length of Operating Cy... <1%
 Submitted works
Universiti Malaysia Sarawak on 2025-07-16 <1%
 Submitted works
Universiti Utara Malaysia on 2023-05-04 <1%
 Publication
subeno mhy, Bambang Pramuka, Wiwiek Rabiatul Adawiyah, Abdul Ahmad. "Disr... <1%
 Submitted works
Kenyatta University on 2022-03-14 <1%
 Publication
Md Shamim Hossain, Md Zahidul Islam, Md. Sobhan Ali, Md. Safiuddin, Chui Ching... <1%
 Page 16 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Page 16 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736
 Publication
Muhammed, Bello. "Impact of Tax Planning Strategies on Financial Performance ... <1%
 Publication
Okpe Caleb John, Aliyu Nuraddeen Shehu, Bello A. Ahmad, Ahmed Aliyu Abdullahi... <1%
 Publication
Siti Miftachul Jannah, Anang Kistyanto, Andre Dwijanto Witjaksono. "The Informa... <1%
 Submitted works
Universiti Teknologi MARA on 2018-07-10 <1%
 Submitted works
Universiti Teknologi Malaysia on 2024-10-17 <1%
 Submitted works
University of Nottingham on 2021-01-18 <1%
 Submitted works
University of Southampton on 2024-09-04 <1%
 Submitted works
University of the Philippines Los Banos on 2020-11-19 <1%
 Page 17 of 189 - Integrity Overview Submission ID trn:oid:::2945:362675736

Appendix 3: Letter of Introduction



Institutional Letters -
Strathmore University

Old Sangole Rd, Madaraka Estate,
P.O. Box 50857 00202 Nairobi, Kenya.
Cell: +254 709 414067, Twitter: @strathmore
Email: info@sbu.ac.ke or visit: www.sbu.ac.ke/strathmore.edu



3rd August 2022

To Whom It May Concern,

RE: FACILITATION OF RESEARCH – WINNIE MOINDE

This is to introduce Winnie Muinde who is a Master of Commerce (MCOM) Student at Strathmore University Business School, admission number MCOM/048241. As part of our MCOM Programme, Winnie is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MCOM course. To this effect, Winnie would like to request for appropriate data from your organization.

Winnie is undertaking a research paper on “**The Effectiveness of Benford’s Law in Fraud Detection in Tax Returns in Kenya and the Relationship between Firm Characteristics and Tax Fraud.**” The information obtained shall be treated confidentially and shall be used for academic purposes only.

Our MCOM Programme seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,

Njoki Kiagiri
Manager – Graduate Programmes
Strathmore University Business School.



Appendix 4: Data collection sheet

DATA COLLECTION SHEET ON CORPORATION TAX ADDITIONAL ASSESSMENTS FOR COMPANIES IN LTO																				
U N I Q U E _ I D	RE TU _P ER IO _ D_ FR O M	RE T U _R N_ PE RI O D_ T O	D E T A I L E D L I N G	Y E A R	T Y P E _ O F R E T U R N	O B L I G A T I O N _ N A M E	S T A T I S T I C A L M E	C O M P U T E R I Z E D	BU S I N E S S _ I N C O M E _ T	B U S I N E S S _ T Y P E	B U S I N E S S _ T Y P E	I N D U S T R Y	CON SOLID ATED GRO SS_ URN OVE R	CO NSOLID ATED NCO SS_ TAX _ PR OFI T	CON SOLID ATED NCO SS_ TAX _ EXP ENSE	CONS OLID ATED _PRO FIT_ L OSS_ BEFO RE_ T AX	CON SOLID ATED _TOT AL_ FIXE D_ A SS	CON SOLID ATED _OTA L_ C URR ENT_ ASS	CON SOLID ATED _ED_ T OTA L_ CU RRE NT_ L IABI	P AY M E N T _ A M O U N T
1																				
2																				
3																				
4																				
5																				

Appendix 5: Confirmation of Compliance with Data Protection Act



CONFIRMATION OF COMPLIANCE WITH DATA PROTECTION ACT

1. NAME OF THE ORGANIZATION: [REDACTED]

2. ADDRESS: [REDACTED]

3. CONTACT DETAILS: [REDACTED]

4. DECLARATION: [REDACTED]

5. SIGNATURE: [REDACTED]

6. DATE: [REDACTED]

7. SEAL: [REDACTED]



KENYA REVENUE
AUTHORITY

ISO 9001:2015 CERTIFIED

INTERNAL

We reiterate that the data used in the research is publicly available and accessible to individuals seeking such information. This transparency aligns with our commitment to openness, accountability and the adherence to legal and ethical standards of research.

Mr. Joseph Tonui
Deputy Commissioner – Corporate Data Office

4th Floor

Tulipe Ushuru, Tujitegeme!

Appendix 6: Data Request Form & Non-disclosure Agreement



Data Request Form &
Non-disclosure agree



**KENYA REVENUE
AUTHORITY**

ISO 9001:2015 CERTIFIED

DATA REQUEST FORM

This form must be submitted for review by the Corporate Data Office. All forms can be submitted to corporatedataoffice@kra.go.ke. By submitting this request, you take full responsibility of the handling of the data.

Date: 7th November 2023
Name: MIRRIE KEMUNDO MOINDI
Job Title: SUPERVISOR - TAX DISPUTE RESOLUTION
Email: MIRRIE.MOINDI@KRA.GO.KE
Phone: 0768 249 165 / Ext. 1243
Department/Unit: ISS BC - ADR

Name of Data Source <i>Example: NTSA</i>	Fill-in the Details Below Type of Data/Variables <i>Example: Name, ID Number, Phone Number</i>	Period (Year, Month, Quarter, Financial Year)
<u>Tax Returns</u> <u>Current Taxpayer,</u> <u>Consult Returns - 15 Companies</u>	<u>Indicated in the attached sheet</u>	<u>January 2018 - June 2023</u>

How do you intend to use the data?

To write a research paper for a Master of Commerce from Strathmore University - The Relationship between Tax Aided and Company Characteristics in Kenya

Signature: [Signature]

Approval by Head of Department:

Signature: [Signature]

Rubber Stamp:



Tulipe Ushara, Tifitegermees!

KRA 2030



KENYA REVENUE AUTHORITY

ISO 9001:2015 CERTIFIED

PUBLIC

TERMS OF THE AGREEMENT

This Non-Disclosure Agreement (hereinafter referred to as the "Agreement") is entered into on 2nd November 2023 (the "Effective Date"), by and between

1. **KENYA REVENUE AUTHORITY**, a State Corporation in the Republic of Kenya duly incorporated under the Kenya Revenue Authority Act (Cap. 469) of the Laws of Kenya and whose registered office is situated at Times Tower, Haile Selassie Avenue and of P. O. Box 48240 - 00100 Nairobi (hereinafter referred to as "KRA" which expression shall where the context so admits include its successors and assigns) of the one part; (hereinafter referred to as the "Disclosing Party") and
2. MUNIR KHAMIS MOINDI with an address of 673 - 00521, NAIROBI, (hereinafter referred to as the "Receiving Party") (collectively referred to as the "Parties").

WHEREAS

1. The Parties have agreed to a confidential relationship to protect any type of information shared by both parties from disclosure to outsiders.
2. The Receiving Party acknowledges that confidential information may be passed to it by the Disclosing Party for purposes of fulfilling a specified goal outlined in a written letter to the Disclosing Party and in accordance with the applicable written laws.
3. The Receiving Party acknowledges that it is of the utmost importance to the other that all Confidential Information remains confidential and that its disclosure to persons other than as permitted under the terms hereof may prejudice the operations of the Disclosing Party; and
4. The Parties wish to set out their obligations regarding such Confidential Information.



6. The Receiving Party undertakes to ensure that the persons mentioned in the paragraph (5) above shall keep the information disclosed to them by the Receiving Party as confidential. The Receiving Party shall indemnify the Disclosing Party against any legal claim, loss or damage, which Disclosing Party may sustain as a result of the Receiving Party failing to comply with this undertaking. The Receiving Party shall reimburse the Disclosing Party for any expenses, including any legal expenses, reasonably incurred by the Receiving Party in connection therewith.
7. The Receiving party shall not disclose personal information that could be linked to an individual, nor will the Receiving Party present the results of data analysis in any manner that would reveal the identity of individuals.
8. The Receiving Party will not present the results of data analysis in any manner that would reveal individual addressees.
9. The Receiving party will not share, publish, or otherwise release any findings or conclusions derived from analysis of data obtained from the Disclosing party without prior written approval from the Disclosing Party.
10. Data transferred pursuant to the terms of this Agreement shall be utilized solely for the purposes set forth in Receiving Party's Written Request for information.
11. The Receiving Party agrees to disclose to the Disclosing Party any research papers resulting from the data/information received from the Disclosing party prior to the publication of the research paper.
12. The Receiving Party shall protect and safeguard the Confidential Information against any unauthorized use, disclosure, report, transfer or publication with at least the same degree of care as it uses for its own



KENYA REVENUE
AUTHORITY

ISO 9001:2015 CERTIFIED

PUBLIC

18. This Agreement is not transferable and may only be considered by written consent provided by both Parties.
19. This Agreement shall be governed by and construed in accordance with the data laws of Kenya, KRA's data protection and Privacy Policy and other relevant laws relating to revenue administration.

The Parties hereby agree to the terms and conditions set forth in this Agreement and such is demonstrated by their signatures below:

DISCLOSING PARTY

Name: CDO - Data Governance

Signature: [Signature]

Date: 8/11/2023

RECEIVING PARTY

Name: Winnie Kemunto Moinle

Signature: [Signature]

Date: 8th November 2023

Appendix 7: List of Data Variables

Data Variable	Source
Unique_ID	N/A
Return_Period_From	Income Tax - Firm Return Line item
Return_Period_To	Income Tax - Firm Return Line item
Date_of_Filing	Income Tax - Firm Return Line item
Year	Income Tax - Firm Return Line item
Type_of_Return	Income Tax - Firm Return Line item
Obligation_Name	Income Tax - Firm Return Line item
Station_Name	Income Tax - Firm Return Line item
City	Taxpayer Registration Form
Business_Commenced_Dt	Taxpayer Registration Form
Business_Type	Taxpayer Registration Form
Business_Subtype	Taxpayer Registration Form
Industry_Name	Taxpayer Registration Form
Ownership	Taxpayer Registration Form
Consolidated_Gross_Turnover	Income Statement
Consolidated_Gross_Profit	Income Statement
Consolidated_Income_Tax_Expense	Income Tax - Firm Return Line item
Consolidated_Profit_Loss_Before_Tax	Income Statement
Consolidated_Total_Fixed_Ass	Statement of Financial Position
Consolidated_Total_Current_Ass	Statement of Financial Position
Consolidated_Total_Current_Liabi	Statement of Financial Position
Payment_Amount	iTax ledger

