DETERMINANTS OF VALUE ADDED TAX COMPLIANCE AMONG SMALL AND MEDIUM MANUFACTURING ENTERPRISES WITHIN EAST OF NAIROBI TAX DISTRICT, KENYA

BY

HARRISON MUTHOKA

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DECLARATION

Declaration by the Candidate

This research project is my original work and has not been presented for a degree in any other University.

Signature:_____ Date: _____

Harrison Muthoka

KESRA105/0136/2019

Declaration by the Supervisors

This research project has been submitted for examination with our approval as University supervisors.

Signature:_____ Date: _____

Dr. Bruce Ogaga

Department of Tax and Customs

Kenya School of Revenue Administration

Signature:_____ Date: _____

Dr. Lucy Rono

Department of Accounting and Finance

School of Business and Economics

Moi University

DEDICATION

This project is dedicated to my dear wife Cecilia, our lovely daughters Julia, Mellisa and Beckie for their support and encouragement during the masters studies.

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ABSTRACT

VAT underperformance in the financial years 2018/2019 and 2019/2020 of 12% and 7% respectively, points to challenges that exist in the collection of value added tax, though an important element of overall tax revenue performance. This challenge called for the need to investigate the determinants of VAT compliance among small and medium enterprises, due to their highest interaction with vatable goods and services. The general objective of this study was to investigate the determinants of value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. The specific objectives included the effect of taxpayer awareness, cost of compliance, and tax morale on value added tax compliance. The study further sought to determine the moderating effect of automation on value added tax compliance. The study was mainly anchored on economic deterrence theory and supported by fiscal exchange, transaction cost, and tax morale theories. Explanatory research design was adopted. Target population included 9,120 SMEs in the manufacturing sector from which a sample of 383 was derived using Bridget & Lewin formula. Primary data was collected using self-administered five-point Likert scale questionnaire. Instrument validity and reliability tested above 0.7 of Cronbach Alpha test attaining the consistencies required. Cost of compliance showed negative and significant correlation with VAT compliance at -0.665. Taxpayer awareness and tax morale were all positively and significantly correlated with VAT compliance at 0.675 and 0.659 respectively while tested at confidence level of 95%. All the determinants with moderator variable correlated with VAT compliance up to 82.8%. R^2 caused 68.6% variations across all the determinants on VAT compliance. The remainder 31.4% could be explained by other factors not included in the model such as taxpayers' behavior among others. The model further revealed a constant of 19.818, a unit change in taxpayer awareness, cost of compliance and tax morale causes 1.661, -3.394 and 0.646 on VAT compliance respectively. A comparison between the R^2 without moderation and with moderation revealed that the R square increased from 53.1% to 68.6%, implying that automation had a substantially positive moderating influence on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises. The study recommends that; the Government should formulate policies targeted towards creating taxpayer awareness on how tax revenue supports provision of public goods and services, KRA should ensure the cost of complying with applicable tax laws and regulations is not expensive to taxpayers as this would lead to increased non-compliance. Religious and social institutions should be activated to help spread the belief that payment of taxes is the right thing to do. Further studies may be conducted to determine whether other aspects such as enforcement measures and human factors have significant influence on VAT compliance.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

CC	–	Cost of Compliance
EBM	–	Electronic Business Management
ETR	–	Electronic Tax Register
EU	**–**	European Union
iTax	–	Integrated Tax Management System
KAM	–	Kenya Association of Manufacturers
KES	–	Kenya Shillings
KRA	–	Kenya Revenue Authority
MSE	–	Micro and Small Enterprise
MSEA	–	Micro and Small Enterprises Authority
MSME	–	Micro, Small and Medium-Enterprises
NACOSTI	–	National Commission for Science Technology and Innovation
OECD	–	Organization for Economic Co-operation and Development
SME	–	Small and Medium Enterprises
TA	–	Taxpayer Awareness
TM	–	Tax Morale
VAA	–	VAT Automated Audit
VAT	–	Value Added Tax

OPERATIONAL DEFINITION OF TERMS

Automation – This is the process of using information communication technology systems including mobile capabilities to register for tax obligations, compute tax due, file taxes and make payments of amounts owed to the tax authority (Kenya Revenue Authority, 2020).

Cost of Compliance – This is the economic efforts made by individual taxpayers to either spend time to pay taxes, hire tax experts to file returns and or penalties and fines imposed due to non – compliance to tax laws and regulations (Slemrod, 2016).

Small and Medium Enterprises – The Micro and Small Enterprises Act, 2012 Kenya defines Small enterprises as firms engaged in business activities with an annual turnover between KES 500,000 to KES 5 million and employing between 10 to 49 employees.

Definition of medium enterprises has been derived from the MSE Act, 2012 and the Sessional Paper No 2 of 2005: Development of Micro and Small Enterprises for Wealth and Employment Creation and the Ernst Young 2009 study commissioned by the East African Community (EAC). Therefore, Medium enterprises are firms operating with 51 to 100 employees and a capital investment of not more than KES 30 million.

Tax evasion – This refers to the conscious or unconscious action and behavior of a person who is liable to pay tax but who fails to fulfill this duty by either under reporting his tax liability or failing to account for his income generating activities altogether. Tax evasion also refers to the reduction or minimization of tax liability by illegal methods (Kirchler, 2007).

Tax Morale – these are intrinsic characteristics such as perceptions and beliefs that inform of a taxpayers willingness and ability to effectively accept the requirements of their tax obligations and make informed decision to comply through tax declaration, tax filing and payment of tax due (Alm, 2012).

Taxpayer awareness – This refers to the acquisition of knowledge relating to tax laws and regulations which can be classified as general taxpayer awareness, procedural taxpayer awareness and legal taxpayer awareness (Silvani, 1997).

VAT Compliance – This involves registration for value added tax obligations, filing of returns, declaration of correct amount of tax and payment of taxes due on time. Tax compliance refers to the degree to which a taxpayer complies or fails to comply with the tax laws and regulations of his/her country (Dasgupta, 2002).

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter covers the introduction to the study where it begins with background of the study by looking at the wider issue of value added tax (VAT) compliance. The chapter then covers the section on problem statement, study objectives, study hypotheses, significance of the study and closes down with the scope of the study.

1.1 Background of the Study

Tax compliance is a broad concept that requires clarification. According to Brown and Mazur (2003), tax law compliance is a complicated measure that can theoretically be defined by looking at three categories of compliance: It is made evident by the segmentation of compliance categories. Administrative compliance, also known as reporting compliance, procedural compliance, or legal compliance, is the first of the two categories, with the first referring to administrative compliance for housing and payments. The second compliance concerns compliance with the technical requirements of tax laws when calculating taxes or with tax regulations regarding the payment of a proportionate share of taxes (OECD, 2019).

Compliance could be associated with behavioral factors that push taxpayers to comply. Drawing from the theory of tax morale, Alm (2012) noted that compliance is a behavior or the intrinsic motivation to pay taxes. Governments should make efforts to boost reasons behind paying taxes from the taxpayer's perspective so as to improve on compliance. The fundamental concern of taxpayers, according to the fiscal exchange theory approach, is what they obtain directly in return for their tax contributions in the form of public services. Taxation and the provision of public goods and services are viewed as a contractual relationship between taxpayers and the

government from this perspective (Moore, 2004). Individuals are able to pay taxes because they value government-provided products and understand that their contributions are required to finance goods and services as well as engage others. Positive rewards can make it more likely for taxpayers to cooperate voluntarily and without direct coercion (Bodea and LeBas, 2014).

In theory, taxpayers believe that tax compliance entails abiding by tax regulations that differ from country to country. The goal of tax administration is to encourage intentional and voluntary tax compliance (Silvani, 1997), lowering the tax gap (the difference between tax paid and tax payable for all taxes and taxpayers) and compliance discrepancies. Tax laws and labor force changes are changing rapidly in many countries, especially developing countries, resulting in instability and poor transparency in tax laws. As a result, complex tax laws and recent changes in tax codes confuse both tax administrators and taxpayers (Khan & Javed, 2017). This creates many opportunities for tax evasion.

Furthermore, complicated tax regulations and processes contribute to tax evasion, which is unintentional and arises as a result of ignorance. Even when the tax system gets excessively complex and/or inconsistent, tax evasion become unavoidable in extreme circumstances (Radzi, 2019). A taxpayer who fails to meet his duties has met the legal prerequisites for the application of tax penalty, according to the tax legislation. Like it or not, taxpayers who have not met the legal requirements for the imposition of tax sanctions have fulfilled their tax obligations. Tax sanctions mark the limits of tax compliance (Payne, 2016).

Governments across the world are increasingly experiencing pressure to generate more revenues to meet the needs of their citizens. Value Added Tax (VAT) is one of the commonly used taxes globally. More than 140 countries globally have adopted

Value Added Tax (Pomaerleau, 2015). VAT accounts for approximately 20 percent of worldwide tax revenue. Ernst & Young (2018) in their paper “The Macroeconomic Effects of Value Added Tax”; noted that VAT non-compliance is a growing problem, in part because of tax cuts, that the gross amount of taxes paid by businesses plus returns made to businesses is very high compared to the net taxes levied by governments (Robert Carroll, 2010).

Ahmad and Samsudin (2016) investigated the factors that influence sales tax compliance in Jordan's small and medium-sized businesses: a need for empirical research. The importance of sales tax in Jordan's small and medium enterprise (SME) sector was discussed in this paper. Importantly, their study aimed to highlight the severity of the tax gap that the government needs to address. The survey used secondary data to analyze 166,000 SMEs. According to the report, around 87 percent of small firms and 35% of medium-sized businesses do not collect sales tax. In Lusaka, Zambia, Thabani and Richard (2020) investigated the factors that influence tax compliance in small and medium enterprises (SMEs). The primary causes of non-compliance by SMEs were identified as high tax rates and difficult filing procedures. Other concerns, such as double taxation and a lack of proper training, had little impact on SMEs' compliance with tax laws.

SMEs have made a substantial contribution to economic growth in today's commercial world. SMEs are growing the Kenyan economy, according to the African Review of Business and Technology. Total GDP growth of 6.4 percent was the forecast for 2017, with SMEs contributing 3 percent (African Review of Business and Technology, 2017). Adisa (2011) examined the determinants of VAT receipts in Kenya. This study used secondary data from the KRA database for the fiscal years

1995/6 to 2009/10. The results of the analysis show that the determinants of VAT receipts have a significant effect on the responsiveness of VAT receipts.

SMEs are recognized as significant drivers of economic and social growth in Kenya, as they are in other developing countries, and are primarily seen as a source of money for the government through taxation (Mwaura, 2019). On this backdrop, Kenya has increased attention to policy framework reviews around VAT compliance and enforcement among SMEs making both policy and automation interventions over the last decade to boost tax compliance. Taxpayer registration, filing of returns as well as payment of taxes is happening electronically via iTax system.

East of Nairobi tax district is home to many SMEs spread across different sectors including but not limited to Transport, Manufacturing, Wholesale and Distribution, Real Estate and Agriculture. Given that 60% of the said SMEs are in manufacturing sector (KNBS, 2020 &

KAM, 2021), the researcher decided to focus the study on this location. In light of the instrumental role SMEs play in economic development here in Kenya, there is indeed immense potential in terms of VAT revenue contribution to the exchequer. Hence, the study sought to identify the factors facilitating and those derailing tax compliances.

1.1.1 VAT Compliance

In Germany, VAT has been designed as a general consumption tax applied proportionally to the price of goods and services. Taxation at all stages of the value added chain goes along with the right to deduct the input tax (Stiller, 2020).

Worku, Tamrie & Atnafu (2019) states that enterprises can be tax-compliant in two ways – in providing or supplying the required invoices, and then filing their tax returns and paying taxes due. VAT is different from other taxes in ways that might

matter from tax compliance perspective. One of these is that the taxpayer is not necessarily an individual, but acting within a business. Another is the high visibility of other businesses' behavior on their expectation to produce VAT invoices and receipts.

KRA (2020) states that VAT is a consumption tax levied whenever a value is added on applicable goods and services at every stage of the supply chain from production to consumption. It is charged on the use of taxable products and services supplied or imported into Kenya. Registered traders charge and retain VAT at every stage along the supply chain with the final consumer usually bearing the tax. Thereafter, these businesses remit the taxes to government.

The legal mandate to charge VAT is drawn from the Value Added Tax Act Cap 476 laws of Kenya. Value Added Tax compliance refers to taxpayer's conformance with the rules set by tax authorities which include filing of tax returns and payment of correct amounts of taxes on due dates. In 1990, Kenya introduced VAT as part of tax reform measures. This replaced the sales tax (Karingi et al., 2005). Value Added Tax Act, 2013 gives guidance and legal requirements on operation of VAT. Goods and services are classified into various categories: Exempt goods and services normally listed under VAT Act 2013, first schedule; Zero rated goods and services listed under VAT Act 2013, second schedule; Goods and services charged at the general rate of 16% and 8% for petroleum products.

Registered traders charge input VAT on purchases which they claim as credit against declared output VAT on their sales. The difference between output tax and input tax is payable to KRA if the output tax exceeds input tax. Conversely, when input tax is greater than output tax, the difference is carried forward to the next month as tax credit deductible against the output tax of that month (KRA, 2020).

In Kenya, changes on VAT treatment for various goods and services are introduced through finance bills almost on an annual basis. This calls for proper understanding of VAT law and regular updates on changes so as to enhance VAT compliance.

1.1.2 Taxpayer Awareness

Tax awareness, according to Muliari and Setiawan (2011), is a situation where someone knows, appreciates, respects, and adheres to the applicable tax provisions and has the integrity and zeal to comply with their tax obligations. Taxpayer awareness is important since it assists in improving tax compliance by ensuring that correct taxes are paid on time. This tax awareness can be achieved through enlightening taxpayers on tax regulations and laws that include taxation procedures thereby facilitating them to know how to fulfill their tax obligations (Negara & Purnamasari, 2018).

Essentially, taxpayers are expected to be cognizant of the existence of the Revenue authority, tax laws, and the need to pay taxes. This serves as the springboard to attain tax compliance. Multiple avenues are used to create tax awareness. These include seminars, stakeholder sensitization forums, and media campaigns among others.

Taxpayer awareness is an effort or action accompanied by self-motivation and desire to perform the rights and obligations of taxation in accordance with laid down regulations (Adhikari, 2020). Taxpayers experience awareness when they know the existence of laws and provisions of taxation; know the function of paying taxes to the state; understand the rights and obligations to be implemented; compile, pay and report voluntarily; calculate, pay and report taxes accurately (Munari 2005).

Indeed, awareness boosts voluntary tax compliance by cultivating taxpayers' civic duty of declaring and paying the correct amounts of taxes due to the government.

1.1.3 Cost of Compliance

Barbone, Bird & Vazquez-Caro (2012) states that compliance with taxation laws does not occur without effort: it must be designed, nurtured, monitored, and enforced in all countries. In economic terms, effort is just another word for cost, and tax compliance costs have been a big concern over time.

Evans (2008) provides a transpicuous and broad definition of terms with regard to the costs of tax compliance and states that contemporary taxation systems have the capacity to impose a huge burden on taxpayers, and particularly on small enterprise taxpayers. That burden typically consists of three elements: the taxes themselves, the efficiency costs also referred to as deadweight losses, the operating costs of the tax system which entail administering and collecting the taxes otherwise known as administrative costs, and the costs incurred by taxpayers in complying with their tax obligations also known as compliance costs (Barbone, Bird, & Vazquez-Caro, 2012).

Compliance costs take different forms. First, there is the direct cost incurred in form of wages and salaries to support the taxpayer's employees responsible for accounting and transactions record keeping. Secondly, there is time spent filling tax returns on i-tax system and on actual payment of taxes. Traders also invest time and money to train their employees on tax matters in addition to purchasing requisite VAT machines like electronic tax registers. Moreover, businesses incur professional fee expenses whenever they engage tax experts to either make interpretations to tax laws or represent them in tax tribunals. Taxpayers also undertake audits and tax health checks in efforts to maintain desired tax compliance standards.

Mahangila (2017) noted when tax compliance costs are high, taxpayers may be more inclined to evade tax. As a mitigation measure, in 2014 KRA introduced the i-tax

system which has greatly reduced reliance on tax experts when it comes to computation and filing of taxes.

1.1.4 Tax Morale

Luttmer and Singhal (2014) noted that much as tax administrators are concerned about enforcement, they also lean towards placing a great deal of emphasis on revamping "tax morale," by which they generally mean improving voluntary compliance with tax laws and creating a social norm of compliance. According to Doerrenberg & Peichl (2018), the decision to evade taxes is not only driven by extrinsic, pecuniary factors such as tax rates, penalties, audit probabilities and enforcement but also by intrinsic, non-pecuniary motives.

Taxpayer morale is assessed by the intrinsic, non-pecuniary factors such as perception and beliefs among others. VAT compliance thresholds are expected to be high if taxpayers' perception and beliefs on government expenditure, transparency and credibility is positive. Negative perception and belief leads to lower VAT compliance levels.

1.1.5 Small and Medium Enterprises

Small enterprises are generally business entities with 10-49 employees and a turnover of between EUR 2 million to EUR 10 million. Medium-sized enterprises have 50-249 employees with a turnover not exceeding EUR 50 million (OECD, 2005). Across the OECD, SMEs account for between 50%-60% of value adding businesses. In many countries, SMEs are the main drivers of job creation and have contributed to the identity and social cohesion of local communities (OECD, 2019).

The Micro and Small Enterprises Act, 2012 Kenya defines Small enterprises as firms engaged in business activities with an annual turnover between KES 500,000 to KES 5 million and employing between 10 to 49 employees.

Definition of medium enterprises is derived from the MSE Act, 2012 and the Sessional Paper No 2 of 2005: Development of Micro and Small Enterprises for Wealth and Employment Creation and the Ernst Young 2009 study commissioned by the East African Community (EAC). Therefore, Medium enterprises are firms operating with 51 to 100 employees and a capital investment of not more than KES 30 million.

Micro, Small and Medium Enterprises play an instrumental role in the Kenyan economy employing over 15 million people and contributing about 30% to the national value-added (Kenya Bankers Association, 2020). Kenyan SMEs are spread across many sectors which include manufacturing, trade, ICT, agriculture, construction among others.

(Viffa Consult, 2020) noted that MSMEs contributed 33% to the country's GDP in 2020. This study focused on the SMEs in manufacturing sector within the East of Nairobi, Kenya.

1.2 Statement of the Problem

The macroeconomic implications of Value Added Tax indicate that non-compliance is a growing problem in management of VAT, partly because in the case of credit invoice taxes, the gross amount of tax paid by the company plus reimbursement to the company is very high in proportion to the net tax imposed by the government (Robert Carroll, 2010). According to European Commission report, EU countries lost an estimated €140 billion in VAT revenues in 2018. The considerable 2018 VAT gap,

coupled with forecasts for 2020 – which would be impacted by the coronavirus pandemic – highlights once again the need for a comprehensive reform of EU VAT rules to put an end to VAT fraud, and for increased cooperation between member states to promote VAT collection while protecting legitimate businesses (European Commission, 2020).

In Kenya, underperformance of VAT revenue due to non-compliance has been a protracted challenge. In the financial year 2018/2019, KRA collected VAT amounting to KES 409.5 billion against the target of KES 464.2 billion (KRA, 2020). In the subsequent financial year 2019/2020, VAT still underperformed against the set target whereby domestic VAT decreased by 7.0 percent, or KES 28.7 billion, compared to an average growth of 2.8 percent recorded between July 2019 and February 2020. Further, in the financial year 2020/2021, domestic VAT recorded a decline of 7.9% with actual collection of KES 196.99 billion against a target of KES 213.89 billion. This shows that as much as efforts are made to enhance revenue collection, there is still underperformance realized on VAT.

VAT is one of the critical revenue streams that the Kenya government depends on to accomplish its development agenda. VAT accounted for 27.8 percent of overall exchequer receipts in 2018/2019 with actual contribution being KES 409.5 billion against the total exchequer tax revenue of KES 1.47 trillion (KRA, 2020).

The goal of this study was to delve deeper into the factors that influence VAT compliance among small and medium manufacturing businesses. The study went on to see if taxpayer awareness, compliance costs, and tax morale are all factors that influence VAT compliance among small and medium manufacturing businesses. The study will add value to the challenging environment of tax revenue collection through

the findings which may then be used to design appropriate procedures, policies and guidelines that enhance compliance.

1.3 Objectives of the Study

This section discusses the general objective, specific objectives and research hypotheses.

1.3.1 General objective

The general objective of the study was to investigate the determinants of value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.

1.3.2 Specific objectives

The specific objectives were:

i. To determine the effect of taxpayer awareness on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
ii. To determine the effect of cost of compliance on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
iii. To determine the effect of tax morale on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
iv. To determine the moderating effect of automation on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.

a) To investigate the moderating effect of automation on taxpayer awareness and on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
b) To determine the moderating effect of automation on cost of compliance and on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
c) To determine the moderating effect of automation on tax morale and on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.

1.4 Research Hypotheses

The research hypotheses were:

i. H_{01}: Taxpayer awareness has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
ii. H_{02}: Cost of compliance has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
iii. H_{03}: Tax morale has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.
iv. H_{04}: Automation has no significant moderating effect on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.

a) H_{04a} Automation has no significant moderating effect on the relationship between taxpayer awareness and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.

b) H_{04b} Automation has no significant moderating effect on the relationship between cost of compliance and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.

c) H_{04c} Automation has no significant moderating effect on the relationship between tax morale and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.

1.5 Significance of the Study

The findings of this study will be useful to policy makers and other stakeholders who may wish to implement them so as to improve revenue collection. The Government of Kenya may use findings and recommendations of this study to develop and refine policies and strategies that shall enhance VAT compliance among SMEs. KRA will use the findings of this research to appreciate the hurdles faced by SMEs in VAT compliance endeavors thereby presenting them with an informed background to formulate requisite risk mitigation measures to boost VAT compliance.

SMEs will derive invaluable benefits from the findings and recommendations of this study regarding factors that may influence VAT compliance. To the academia, the study may be used by various scholars to improve their knowledge, and hence contribute to their academic work through referencing. Different scholars will be able to identify other factors that affect VAT compliance among SME's and identify research gaps that need to be filled.

1.6 Scope of the Study

The research was conducted within the East of Nairobi tax district which is defined as the location which according to KRA falls under the commissioner for domestic taxes and is within the East of Nairobi tax district. It covers the areas including industrial area between Jogoo Road and Mombasa Road, starting at Haile Selassie Avenue to Utawala precincts and slightly past Jomo Kenyatta International Airport before the border of Nairobi and Machakos County (KRA, 2020). The study focused on financial years 2018/2019, 2019/2020 and 2020/2021.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter examines the extant literature on the subject, which consists primarily of secondary sources such as books, journals, and papers. The chapter begins with a look at the concept of the study where the variables relationships are briefly discussed. The chapter then proceeds to investigate theories that the study relates to and how they support the study. Current and past studies are then empirically reviewed for each of the variables. The gaps are then identified, and the literature review is summed up. The chapter concludes by conceptualizing the study variables diagrammatically.

2.1 Conceptual Review

The concept of the study was to investigate the determinants of value added tax compliance among the small and medium manufacturing enterprises within the East of Nairobi tax district. The study concepts include taxpayer awareness, cost of compliance, automation and tax morale.

2.1.1 Value Added Tax compliance

Tax compliance is defined differently by several authors. According to Dasgupta (2002), complying with tax rules include precisely defining the tax base, correctly calculating tax responsibilities, timely submission of tax returns, and timely payment of tax owed. According to Kirchler (2007), compliance can be voluntary or mandatory. This voluntary compliance is made possible by the tax authorities' trust and collaboration with the taxpayer, as well as the taxpayer's desire to follow the norms and regulations. Tax compliance, according to Singh (2003), is defined as the act of filing tax returns, describing all taxable income, and paying taxes owed within the time limits set by the authorities without waiting for additional action from the

authorities. Any behavior of the taxpayer that is contrary to the above definition is considered as non-compliance.

With regard to VAT, traders can avoid to register for the tax, they may under-declare sales or, where different goods are subject to different tax rates, they may reduce their tax payments by wrongly categorizing sales into the classes subject to lower rates of tax or even zero tax rate leading to VAT non-compliance by abusing the credit and refund mechanism (Keen, 2007).

Underperformance of VAT, denies governments the much-needed revenue for growth and development according to Oladipupo & Obazee (2016). Several studies by Barbone, Bird, & Vazquez-Caro (2012), Msangi (2015) and King'oina (2016) found that there are a number of factors that contribute to underperformance of VAT collection among various sectors of the economy. Notably, compliance among small and medium enterprises was noted to be a major challenge that significantly contributes to VAT revenue underperformance.

The correlation between taxpayer spending in developing countries was found to be four times higher than in developed countries and stronger for SMEs due to the complexity of the tax system. According to the OECD (2004), most tax authorities have found that small businesses in the informal sector are numerous and diverse, making them unprofitable, inconvenient and tax-dangerous in terms of additional income. While it has been found that it is unprofitable and difficult to tax SMEs, tax authorities around the world recognize the importance of compliance in this sector as it reduces taxpayer morale risks, eliminates competitive distortions and helps improve bookkeeping.

Value Added Tax Act, 2013 gives guidance and legal requirements on operation of VAT. VAT is a consumption tax levied whenever a value is added on applicable goods and services at every stage of the supply chain from production to consumption (KRA, 2020). When tax authorities ignore SMEs in applying taxes, a situation arises where other taxpayers shift from good to poor compliance (Naibei et al., 2018). Competitive distortion and inefficiency will occur when companies begin to regulate their processes when parts of the company are excluded from the tax compliance class.

Therefore, every effort should be made to ensure that compliance is enhanced among the SMEs for the benefit of increased revenue collection but also to control any negative effects among all other taxpayers. The study attempted to investigate the factors that influence SMEs compliance with the requirements of tax laws. These influencing factors could either be negative or positive.

2.1.2 Taxpayer Awareness

Lestari & Wicaksono (2017) states that awareness of the taxpayer is a situation where the taxpayer knows, understands, and implements tax regulations correctly, voluntarily, and diligently in order to fulfill their tax obligations. Muliari and Setiawan (2011), defined taxpayer awareness as a condition in which someone knows, appreciates, respects, and adheres to the applicable tax provisions and has the desire to comply with their tax obligations.

Oduro, Asiedo and Tackie (2018) conducted a study on the determinants of tax evasion in developing countries: a structural equation model approach in the case of Ghana. It was noted that taxpayer awareness plays an important role in reducing the impact of traditional and institutional factors that cause non-compliance with tax regulations. Value Added Tax is regulated and enforced in Kenya by the Value Added

Tax Act 2013. In theory, taxpayers and tax authorities believe that tax compliance entails abiding by tax regulations, which vary from country to country. The goal of tax administration is to foster voluntary and conscientious compliance with tax legislation (Silvani, 1997), which will help to close tax and compliance gaps. Tax laws keep on changing and therefore taxpayers are at times expected to pay their taxes due without many efforts from tax authorities to create awareness on these changes. It has been observed that every financial year, in Kenya, when the budget is read, several fiscal and monetary policies come into effect and subsequently influence tax laws.

According to Mo (2003), tax laws and changes in the labor force are changing rapidly in many countries, especially developing countries, resulting in instability and poor transparency in tax laws. He also said that due to complex tax laws and constant changes in tax laws, they continue to confuse both tax administrators and taxpayers. These complications create many opportunities for tax evasion. In addition, it leads to tax evasion, which is not intentional but because of ignorance of tax laws. Therefore, it is generally assumed that if the laws are not clear and well understood by the small and medium enterprises, compliance may be affected in the negative.

2.1.3 Cost of Compliance

According to Laffer et al. (2011), before people and businesses pay their taxes, they should gather documents, organize files, and research tax regulations to establish their tax burden. Costs are further increased by hiring experts to file declarations and interpret a number of rules for tax deductions, compensation, exemptions and benefits. Taxpayers also purchase tax softwares which assist with transactions data used in determining tax liabilities. To track, measure, and pay their taxes, SMEs must retain accountants, lawyers, and tax professionals.

According to Bain, Walpole, Hansaford, & Evans (2015), empirical studies carried out in 2010-11 in four countries including the United Kingdom and Australia gathered data about the levels of compliance costs experienced by small scale businesses. The studies used similar survey instruments and compared internal and external tax compliance costs incurred by small businesses across different taxes. For these surveys, internal compliance costs were taken as cost of labor and time taken in completing tax activities. The external costs used were the cost of hiring professional experts to assist in tax compliance. The results indicated that internal compliance costs were higher than the external ones.

Fichtner and Feldman (2015) noted that tax compliance costs are exceedingly high and these expenses result in missed economic growth, wasteful spending on professional tax services, and even revenue collection. For SMEs, these resources will be better used for business expansion and increased production capacity at the individual level, while for business, savings and investment.

The cost impact is strong for SMEs, as tax administration is regressive with firm size, consuming more resources in SMEs compared to larger firms (Slemrod, 2002). Due to costs many SMEs may not want to declare their true picture of their business transactions, this might lead to non-compliance.

2.1.4 Automation

Ernst & Young Global Ltd (2019) state that automation in Russian tax administration is dramatically improving efficiency, and this has resulted in a trust-based relationship that increases certainty between taxpayers and tax authorities.

Obert et al. (2018) looked into the effect of electronic tax filing on client compliance in Harare, Zimbabwe. Tax filing automation using electronic techniques, according to

the data, has a positive impact on tax compliance. The attitude of taxpayers towards tax compliance improved when the process of tax filing is automated and lessens the time taken to file tax returns. The government of Kenya currently automates most of tax filing processes through various systems and tools. These tools and systems include iTax which is an automated platform where taxpayers can register for taxes, file their taxes, make payments, and keep their ledger in real time among other services (KRA, 2020). There is a KRA-Mobile App platform used to pay taxes especially by the SMEs and individuals. VAA, a system-based solution that detects anomalies between purchase and sales invoices that have been declared in the VAT returns filed in iTax, was recently launched by the tax authority. According to Kenya Revenue Authority (2021), automation is part of compliance activities aimed at maximizing the use of data to improve tax compliance and processes.

Automation requires technological advancement and a bit of knowledge to effectively use either tools or systems currently used in filing for both individual and business taxes. Therefore, this could point to reasons for compliance or non-compliance. As observed when tools and systems become complicated to understand and use; many taxpayers are likely to shun their usage or fail to correctly declare their tax liabilities.

2.1.5 Tax Morale

The concept of tax morality was first introduced in 1960 by the Cologne University of Tax Psychology (Schmolders, 1970). The innate motivation to pay taxes is frequently termed as tax morale (Togler, 2012). Tax morale, according to Luttmer and Singhal (2014), is a set of non-monetary motivations and tax compliance elements that go beyond maximizing projected benefits. However, as Horodnic (2018) points out, personal qualities have a crucial role in determining a person's tax morale and, as a result, tax compliance behavior. Reduced tax morale, according to Brink and Porcano

(2016), is linked to higher levels of tax avoidance, which translates to lower tax compliance. Alasfour, Samy and Bamkpton (2016) conducted research on the determinants of tax morale and tax compliance, in Jordan. The document also examined how people determine tax morale and their decisions to comply with tax laws. This study used a survey and multivariate testing process to analyze the data.

The results show that tax avoidance in Jordan is morally acceptable under certain circumstances. These circumstances include; when taxpayers feel obliged to avoid taxes because the state is considered highly corrupt. The findings also demonstrate that, whereas government corruption has a positive (negative) impact on tax evasion (morale), the effective use of government tax revenues has a negative (positive) impact on tax evasion (tax morale). Individual tax infractions are also favorably influenced by tax rates and the tax system, which are regarded to be unjust, but diminish as audit rates and associated punishment levels rise. Individual risk aversion, financial limits, and surrounding reference groups all influence the amount and effectiveness of tax morale determinants. Individual variables play a crucial impact in affecting tax morale, according to the findings. Furthermore, the study suggests that gender, age, education level, professional status, and religious background all have a substantial influence on tax morale and compliance in a person's decision-making. This study assumes that tax morale determines tax compliance.

2.2 Theoretical Framework

There are several theories that have been reviewed in the efforts to explain tax compliance among taxpayers in various parts of the world. Feld and Frey (2007) state that there are a variety of viewpoints on the best approaches to promote tax compliance.

2.2.1 Economic Deterrence Theory

Early writings by ancient philosophers like Thomas Hobbes (1588-1678), Cesare Beccaria (1738-1794), and Jeremy Bentham (1748-1832) can be linked back to the theory. This notion arose through a sequence of checks that led to the theory of economic deterrence. Tax rates, chance of detection, and fines for fraud, according to economic deterrence theory, influence taxpayer behavior by determining the advantages and costs of tax evasion (Allingham & Sandmo, 1972). If taxpayers are aware that exposure is possible and the penalties are high, few people will try to avoid paying taxes. In contrast, with a low chance and a low penalty, evasion has a large expected return. After that, the model continues to forecast the difference. Although this paradigm has been criticized for focusing solely on the enforcement aspect of compliance at the expense of the consensus side, there is some evidence that preventive non-compliance tactics are effective (McKerchar & Evans, 2009). In some cases, the threat of revelation and punishment has proven to be a useful technique for inducing actual taxpayer behavior. Tax administrations, like KRA, have widely accepted the theoretical principles of economic deterrence in designing enforcement techniques focused primarily on punishment and fear of arrest. According to economic deterrence theory, those who find tax evasion difficult will be more likely to follow the rules (Sandmo, 2005).

Since the study aimed to find out the factors determining VAT compliance, the theory emphasizes this fact that the economic consequences to tax evasions could deter taxpayers from non-compliance. On the other hand, when the economic consequences are considered minimal, then taxpayers may tend to intentionally evade paying taxes as they could easily bear the consequences (Sacks, 2012). The impact of taxpayer awareness on VAT compliance is linked to the theory because when tax rules are

deemed weak and less punishing to tax defaulters and offenders, taxpayers are more likely to fail to comply since they can simply overcome the existing tax regulations.

On the contrary, when tax laws are strict and are highly punitive, then the taxpayers will weigh the consequences and hence comply as per the requirements of the law. On cost of compliance, the theory relates that when the cost of non-compliance is higher than cost of compliance, taxpayers will be deterred from defaulting and still when the cost of compliance is bearable and could be easily absorbed by the individuals and the business, this may lead to assumptions and failure to comply to set dates and other requirements for tax computation and payment thereof. On the automation, the theory relates in that when the systems that facilitate automation are considered complicated, taxpayers may be deterred from compliance hence affecting the performance of value added tax (Daude *et al*., 2012).

Based on the foregoing discussions, the economic deterrence theory supports the study dependent variable because value added tax compliance has economic consequences to the taxpayer in this case the small and medium enterprises. Those taxpayers who choose to voluntarily comply, would save on the costs of audits, and fines and penalties that may arise. However, to avoid facing these economic consequences of non-compliance, there is a need for taxpayers to be aware of the applicable tax laws, procedures and rules that govern the administration of value added tax. All these bear the economic consequences hence the theory encourages compliance behaviour while deterring non-compliance due to the economic consequences borne by the taxpayer. Even though these factors may vary depending on the category of taxpayer, it is a common understanding that the economic consequences inform individuals and businesses to decide on whether to be tax compliant or not. Failure by the SMEs to understand either of the variables in the

study, may ultimately lead to higher costs of doing business hence disabling these businesses from realizing their economic goals.

2.2.2 Fiscal Exchange Theory

Eguino & Schächtele (2020) tested fiscal exchange in a cluster-randomized controlled trial in Argentina introducing new evidence that a harmless behavioral intervention seeking reciprocity positively increases tax compliance in a situation where one least expects such an intervention to flourish. The study hypothesized having children as beneficiaries, the visible form of the appeal, and the closeness between taxpayers and public services in the urban setting have resulted to the positive compliance effects. It was demonstrated that adding a fiscal exchange attraction to the tax due for payment greatly improved payments of municipal property taxes. Aboagye & Hillbom (2020) states that fiscal exchange theory views taxation as a negotiated exchange between governments and taxpayers, that is, the payment of taxes in return for both tangible public goods and services including education, health care, and infrastructure and intangible public goods such as political representation, and maintenance of law and order. Tax compliance is expected to improve when taxpayers anticipate corresponding benefits from the state.

According to fiscal exchange theory, the presence of government spending can drive compliance, and governments can promote compliance by making the products citizens seek more efficient and available (Moore, 2004). Compliance rises in tandem with public views of availability of products and services. As a result, taxpayers' primary interest is what they receive in direct exchange for their taxes in the form of public services (Ali, Fjeldstad & Sjursen, 2013). The fiscal exchange theory is relevant to the study because taxpayers are usually encouraged to pay taxes when they feel that their efforts contribute to national economic growth and development. This is

particularly relevant to the study variable tax morale. Since these are intrinsic issues embedded within each individual taxpayer, each has ability to weigh the benefits accrued from payment of taxes which would lead to increased compliance. This is especially relevant where taxpayer is educated and is able to consider payment of taxes as a responsibility that every citizen should participate in. This further enhances the theory of fiscal exchange on tax awareness and tax morale. However, in the cases where taxes collected do not seem to correspond to the anticipated development, many taxpayers may feel discouraged to pay and hence lead to intentional non-compliance (Rethi, 2012). Therefore, the theory particularly supports the independent variables of taxpayer awareness and tax morale.

2.2.3 Transaction Cost Theory

Ronald Coase established transaction cost theory in 1937. Transactions, according to the theory, are costly efforts that involve a variety of costs (Coase, 1937). Coase states that the most obvious cost is that of discovering what the relevant prices are. He notes that the costs of negotiating and concluding a separate contract for each exchange transaction must be taken into account.

Malter and Rindfleisch (2019) states as our world becomes increasingly more digital and ever more reliant on technology, marketing scholars across all sectors need to carefully consider its benefits and perils. These new technologies bring about many potential perils, such as the invasion of privacy and risk of fraud (Tan et al. 2016). Prasad and Shivarajan (2015) suggested computerization of government services can assist in reducing corruption evident in government transactions. The challenge was absence of clear understanding of the process through which computer-mediated transactions reduce corruption. They observed that the emerging technologies have

great potential to significantly reduce the costs of coordinating and monitoring transactions.

Transaction cost theory, according to the World Bank Group and PwC (2017), is a useful paradigm for studying and evaluating socio-economic phenomena relating to corporate taxation. Businesses normally incur costs during preparation stages for VAT compliance. Possible costs include but not limited to record keeping, hiring accountants and or tax professionals to assist in tax compliance. When these costs are high the business may deliberately be non-compliant and hence affect the tax revenue performance. The theory specifically supports the independent variable of cost of compliance.

2.2.4 Tax Morale Theory

The theory of tax morality was first introduced in 1960 by the Cologne University of Tax Psychology (Schmolders, 1970). Tax morale is usually defined as the intrinsic motivation to pay taxes (Togler, 2012). Tax morale, as defined by Luttmer & Singhal (2014), is a set of non-monetary motivations and determinants for tax compliance that go beyond maximizing expected benefits. Tax ethics is a fairly rudimentary philosophy that has been criticized for not paying enough attention to non-monetary variables while deciding whether or not to avoid taxes. Tax morality is also used as an abbreviation for all non-monetary factors and deviations from expected utility maximization (Allingham & Sandmo, 1972). Although tax ethics is used as a concept, it can more accurately be seen as a number of fundamental reasons for compliance with tax laws.

Understanding individual preferences and devising suitable policy responses require identifying the routes via which tax morale operates. By adjusting for individual demographics, Holla(2012) discovered, using a study-based measure of tax ethics,

that people born in the United States had greater tax ethics in the United States when their home country had higher average tax ethics. Individuals having heritage from a country scored 10 percentage points higher on both dimensions of tax ethics as measured by binary variables in the United States. In a wide sample of European countries, Kountouris and Remoundou (2013) discovered a similar effect on first-generation immigrants. Tax morale is important, but quite inelastic. In the case of honest taxpayers and the strategic taxpayer model, intrinsic motivation can have a major impact on overall compliance as it applies to honest taxpayers, but moral persuasion intervention cannot influence the behavior of both groups.

Many channels of tax morale can be inelastic with respect to the type of intervention that can be tested experimentally. For example, a letter stating that tax revenues are important in the financing of public goods may not be effective if people are firm, and perhaps even assertive, that income is often confiscated or spent inefficiently. However, this argument does not mean that tax morale cannot be influenced by actual government policies (Besley, Jensen & Persson, 2015). Balla (2017) notes that the theory of tax morality is often applied to individuals where the individual may have an intrinsic motivation to pay taxes, or feel guilty or ashamed for non-compliance. They can satisfy each other for reasons of mutuality, namely the desire to pay taxes to them or others in exchange for government profits, even though their cash benefits would be higher if they did not pay taxes.

According to Togler (2007), peer conduct and the expectation of social recognition or sanctions from peers can have an impact on individuals. Cultural or societal standards can alter the degree to which these innate drives, reciprocal motives, or peer sensitivity exist. The theory of tax morale is relevant to the study since tax morale is one of the concepts that the study sought to investigate and its effect on tax

compliance. Tax morale is an intrinsic behavior that could be influenced by individual's perceptions and beliefs about the government handling and management of public resources that informs their tax payment, and compliance behaviour (Togler, 2012). When taxpayers perceive that their taxes are put to good use in the provision of public goods and services, they would feel most encouraged to contribute by paying their tax dues (Balla, 2017). The reverse may also be true in the situations where their perception negates the importance of paying taxes, then compliance level would be low.

The theory specifically supports the independent variable of tax morale. This further helps the study ask for questions that would meet this objective of the effect of tax morale on VAT compliance.

2.3 Empirical Review

This section reviews some of the existing empirical studies in the area of tax compliance. It reviews the conceptual approaches, the contextual approaches, the methodological approaches and critiques to these studies.

2.3.1 Value Added Tax Compliance

Radzi (2019) investigated the factors that influence VAT compliance in small and medium businesses in Malaysia. This survey gathered information from 248 usable owners on Malaysia's northern peninsula. Power, remoteness, individualism, masculinity, insecurity avoidance, and long-term orientation were all linked to the intention not to pay taxes, according to the findings. However, SME owners are prone to tax evasion and avoid cash declarations because of the tremendous opportunities associated with cash transactions. Put differently, SMEs are likely to be compliant

where transactions are not cash-based since there is evidence of businesses having taken place (Mohamad, Zakaria and Hamid, 2016).

Since most SMEs actions of doing businesses and their businesses nature, many tax authorities tend to overlook their actions while transacting (Ali, 2013). Puspasari et al. (2021) performed a study in Malaysia to establish tax compliance among SMEs and discovered that a 1% turnover tax is costly for micro and small businesses that operate along the idea of "as long as there is a cash inflow and outflow." Meaning that the businesses are only survivable when there is cash coming in and going out and an introduction of any tax would eat part of this cash flow and drive them out of business. Further the study found that among the medium enterprises the case was different as they can distinguish revenue, profit, and costs to plan better for tax.

The moral influence of taxes on tax compliance on Jordanian SME turnover was investigated by Alshirah, Abdul-Jabbar, and Samsudin (2019). The impact of tax ethics on sales tax compliance is then examined using data from a Jordanian survey of 212 manufacturing SMEs. To forecast, understand, and manage social phenomena, this study used a quantitative method. Tax morale has a considerable favorable effect on sales tax compliance, according to the findings. Defitri et al. (2018) investigated the impact of demographic characteristics on tax compliance, specifically age and education, as well as the use of electronic documents. The study design accepted the study and targeted sampling was carried out. Multiple regression was used to analyze data and test hypotheses. The results showed that demographic factors, age and education, as well as the use of electronic filing had no effect on taxpayer compliance.

According to Newman et al., (2018), tax compliance among SMEs has piqued the interest of various tax authorities, academia, and non-governmental organizations

around the world. The critical role that SMEs play in contributing to the economy should equally be investigated to further support the growth and development especially among developing economies. It is therefore of essence to understand what factors determine their compliance to tax laws and ensure that these SMEs pay their fair share of tax and contribute effectively to the economic development.

2.3.2 Taxpayer Awareness and Value Added Tax Compliance

Belkaoui (2004) discovered that tax compliance is positively connected to the degree of economic freedom and legal effectiveness, and adversely related to the amount of crime surrogate moral norms, using a multi-regression analysis on SMEs and tax compliance from 30 countries throughout the world. This further reinforces the fact that when taxpayers are aware of tax laws and have the economic freedom to conduct their business, they are more likely to comply. Puspasari *et al*., (2021) examined the tax perception of SMEs using the Zaltman Metaphor Elicitation Technique (ZMET) method. The purpose of this study is to examine SMEs' perceptions of state taxes and to gain an in-depth understanding of them. This research is based on a qualitative study conducted by nine in-depth interviews with ZMET-based SMEs. The survey results show that the government misunderstands taxes. That the government persecutes, undermines, and treats them unpleasantly instead of using them in a carrot approach.

According to Eragbhe and Modugu (2014), the tax approach for SMEs must be smooth and the state must act as an advisor not as an implementer. Rather than stomping on SMEs, the government could take a different approach, allowing all parties to sit down and chat to gain a better understanding of the tax regulations. Arnaout and Esposito (2018) note that communication strategies are critical for SMEs and that changing the way small and medium enterprises think requires a different

approach to communication and awareness-raising. This would effectively contribute to the knowledge build among the SMEs ensuring they do not only understand the tax laws but are to comply with the requirements of the tax laws and regulations.

Mbugua, Simon & Baimwera (2017) examined the factors that influence SME compliance in Kiambu district. This study adopted a descriptive research design. They used a population of about 1,048 SMEs in Kiambu Regency, and a sample of 325 SMEs. The study's findings show that with regard to compliance efforts, knowledge requirements, and decision-making frameworks all have a positive and significant impact on tax law and regulatory compliance. The study even though concluded that weak capacity to detect evasion, ease of bribery, corruption practices, fine and penalties also contributed to non-compliance, taxpayers awareness, could to some degree, help in reducing the malpractices that contribute to non-compliance among the SMEs. Taxpayers need to be made aware of the importance of tax compliance. The efforts will go a long way in ensuring paying taxes is not just a matter of statutory and legal requirements but a moral action, that every citizen should participate in.

2.3.3 Cost of Compliance and Value Added Tax Compliance

Small business owners, whether they have accounting experience or not, tend to have control over all accounting methods and practices, according to a study by Huerta et al. (2017) on the factors impacting tax compliance among SMEs in Malaysia. Due to trust difficulties, many SMEs do not employ professional accounting services, including taxes, according to Blackburn et al. (2018). As a result, SMEs lack a second, objective viewpoint on tax regulations. This often leads to increased compliance costs. Faridy *et al.* (2014) noted that due to the complexity of the tax system, some companies, especially those that can afford it, may hire tax professionals to assist them with complex tax planning to minimize tax payments.

From 2006 to 2011, the World Bank Group conducted a large-scale, semi-structured questionnaire-based survey of the costs of tax compliance in transitional and developing countries in Kenya. Computer and internet practice; Experience with tax review and tax audit; Taxpayer moral; the reasons for their non-compliance; and their perceptions of the competence, fairness, coherence and integrity of tax authorities and tax officials. This study finds that tax compliance costs are regressive. Pope (2016), Maseko (2014) and Faridy *et al*. (2014) do generally agree that to some extent cost of compliance tend to contribute to either non-compliance or compliance based on the size of the organization and their capabilities to seek professional tax and accounting professionals to assist them.

A study on tax spending and compliance in Kenya was done by Abdul and Wang'ombe (2017). The impact of tax compliance measures on tax compliance behavior in medium and big businesses is investigated in this study. The key cost components obtained from the survey data are identified using a structural equation modeling (SEM) technique, which controls for the fundamental elements of the tax system and characteristics. The findings reveal that as tax compliance costs rise, tax compliance reduces dramatically, particularly in terms of understanding complicated tax laws, changes in tax rules, total compliance costs, and regulatory requirements. The study specifically pointed out to the tax compliance costs that could be reduced to ensure increased compliance among firms.

2.3.4 Moderating effect of Automation on Value Added Tax Compliance

Ringim, Razalli and Hasnan (2012) examined the moderating effect of IT skills in relation to business process reengineering (BPR) factors and organizational efficiency. The BPR factor is operationalized through change management, alignment with BPR strategy, customer focus, management involvement, IT investment and

adequate financial resources. IT skills include IT knowledge, IT operations and IT objects. The results showed that IT skills moderated the relationship between BPR factors such as change management, customer focus, management involvement, and the bank's overall organizational performance. However, this study does not focus on VAT compliance.

Bravo and Ostos (2017) examined productivity in computer-mediated work: the moderating role of the degree of automation. The questionnaire was used to collect data from 201 users across different organizations and functional areas. Structural equation model was used for analysis. The results show that the level of automation softens the direct link. In a structured and procedural environment, the relevance of task knowledge may decrease with a high degree of automation, and the relevance of perceived usefulness may decrease with a low level of intervention. However, this study did not focus on VAT compliance.

Braganza, Chen, Canhoto, and Sap (2021) examined the work remaining after the impact of AI automation, albeit with changes. The authors used the term gigification to describe this work because they argued that the remaining work has the characteristics of working with concerts. This study examined the relationship between gigification, work engagement and job satisfaction. The results show that while teething increases job satisfaction and engagement, AI automation attenuates the positive impact of teething on these important outcomes for employees. However, this study did not focus on VAT compliance.

Awiti, Imbambi, Mande and Machuki (2020) investigated the moderating effect of technology on the relationship between change management and performance of NSE-listed firms in Kenya. A cross-sectional design was used. Secondary data were obtained from published sources and primary data from semi-structured

questionnaires. The analysis carried out includes descriptive statistics, Pearson correlation, hypothesis testing, and regression. The study concludes that technology significantly moderates the relationship between change management and the performance of companies listed on the NSE. This study recommends that the management of companies listed on NSE increase the use of technology in their business processes/operations, and further studies may also review other moderating or mediating variables. However, this study did not focus on VAT compliance.

2.3.5 Tax Morale and Value Added Tax Compliance

Ahmad *et* al. (2020) did a study on the determinants of tax morale: survey evidence from undergraduate students in Malaysia. The study variables included perception of tax morale among accounting and non-accounting students. The study used adapted survey questionnaire from previous literature using the data collected from the undergraduate students. The data was measured against a four-point Likert scale. The findings of the study showed that fair tax system, government spending, corruption in government, taxpayer financial constraints and religion influence the student's perception on the level of tax morale.

Crnogorac and Lago-Penas (2019) investigated the factors that influence tax morale in former Yugoslav countries. The study used data from the 2008 European Survey of Values, as well as fiscal and economic macro data, to conduct an empirical analysis of tax morale factors. The findings reveal that individual-level results for the variables are consistent with existing scientific literature. Cyan et al. (2016) conducted a study on the determinants of tax morale in Pakistan. The variables in the study included lower labour force persons, level of education, industrialized estates and gender. The study analyzed the data using binary Probit regression model.

The results of the study suggest that those with a lower labor force participation rate are more enthusiastic about tax compliance. Educated respondents have higher tax morale than illiterate respondents, but only those with a very low or very high education have better tax morale than those with a bachelor's degree. The study also finds that tax morale is higher in large industrial areas that serve as government seats. The study also found that women have higher tax ethics than their male counterparts, but their attitudes tend to decrease with age so that older women have lower tax ethics than older men. The gender results show that increasing women's participation has potential benefits.

Horodnic (2018) published Tax Ethics and Institutional Theory: A Systematic Review of the Factors That Shape Tax Ethics in the United Kingdom. This research is based on a thorough search of a library catalog that contains over 400 databases. Except for the control variables and sociodemographic characteristics, the results demonstrated that the tax moral theory contained various components that may be linked to tax morals. The most important component in this study was trust, with both vertical and horizontal trust being positively connected to tax morale. Based on the empirically reviewed literature, it is evident that tax morale is determined by a myriad of factors which can generally be considered intrinsic human behavior. The proposed study will look at perception and beliefs as some of these intrinsic factors.

2.4 Research Gaps

From the foregoing literature review several conceptual and contextual gaps were identified. Table 2.1 presents several studies that have been conducted, the existing knowledge and research gaps. It contains conceptual gaps where the study considers either of the conceptual variables or linkages in isolation or combinations with other

variables that are not part of the study. The review also identified contextual and methodological gaps. This study therefore sought to fill these identified gaps.

Table 2.1: Summary of Research Gaps

Topic	Author	Findings	Research Gap	How the current study addresses the gap
Jordanian taxpayer awareness, knowledge, tax sanctions, public service responsibility, and compliance	Anto, Hamid & Bulan (2021)	Taxpayer awareness and understanding have a favorable impact on taxpayer compliance, however tax punishments and public accountability have had little impact.	**Conceptual Gap** Study focused on all taxpayers compliance using tax knowledge, awareness, sanctions, and public accountability as independent variables **Contextual Gap** The scope of the study was in Jordan **Methodological gap** The study used basic research approach	**Conceptual Gap** The current study included cost of compliance, and tax morale as independent variables. **Contextual Gap** The study focused on SMEs within the East of Nairobi tax district, Kenya. **Methodological gap** The study used explanatory research approach. This study has also added automation as a moderating variable
The factors that influence small and medium-sized businesses' compliance with value-added taxes in Malaysia	Radzi (2019)	Power, remoteness, individualism, masculinity, uncertainty avoidance, and long-term orientation are all associated with a desire to avoid paying taxes.	**Conceptual Gap** Study focused on personal attributes variables only **Contextual Gap** The study focused on Malaysia only.	**Conceptual Gap** This study included taxpayer awareness, cost of compliance, and tax morale as independent variables. The study has also added automation as a moderating variable **Contextual Gap** The study was conducted in East of Nairobi tax district, Kenya.
Tax compliance among Indonesian SMEs is influenced by a number of factors.	Blackburn *et al.* (2018)	Complexity of tax systems increased cost of compliance due to fees for tax experts among SMEs	**Conceptual Gap** The study looked at the impact of accounting costs on tax compliance. **Contextual Gap** The research was based in Indonesia.	**Conceptual Gap** This study focused on cost of compliance by introducing time and accounting fees costs. **Contextual Gap** The study focused on manufacturing SMEs in East of Nairobi tax district, Kenya.

The Impact of Tax Morale on Jordanian SME Sales Tax Compliance	Alshirah, Abdul-Jabbar, & Samsudin (2019)	Sales tax compliance is significantly influenced by tax morale.	**Conceptual Gap** Study used tax morale as the only independent variable impacting sales tax compliance. **Contextual Gap** The study focused on Jordan manufacturing sector **Methodological gap** The research applied quantitative approach	**Conceptual Gap** This study used two additional independent variables of taxpayer awareness, cost of compliance. **Contextual Gap** This study focused on manufacturing SMEs within East of Nairobi tax district, Kenya. **Methodological gap** The current study used explanatory research. This study has also added automation as a moderating variable.
Tax compliance among small enterprises in Thika town is influenced by a number of factors.	Mwaura (2019)	Attitudes and behavior of taxpayers have been demonstrated to have a substantial impact on tax compliance.	**Conceptual Gap** The study had taxpayers' attitudes and taxpayers' behaviour as independent variables **Contextual Gap** The study's scope was limited to all small-scale enterprises in Thika town.	**Conceptual Gap** The current study has three independent variables of taxpayer awareness, cost of compliance, and tax morale. The study has automation as a moderating variable **Contextual Gap** The focus of this research was on manufacturing SMEs in Kenya's East Nairobi tax zone.

2.5 Summary of Literature Review

The literature search included a number of studies on topics related to tax compliance. The following conclusions can be drawn. First, tax compliance is defined as filing tax returns, detailing all taxable income, and paying taxes due within the specified time limit (Singh, 2003). Second, most tax authorities find that small businesses in the informal sector are numerous and diverse, making them unprofitable, inconvenient and taxing in terms of additional income (OECD, 2004). Third, the costs of complying with tax laws are very high, and these costs result in lost economic growth, unnecessary spending on professional tax services, and even revenue collection (Fichtner & Feldman, 2015).

Fourth, automation of tax filing through electronic means has a positive influence on tax compliance (Obert *et.al*, 2018). Fifth, SMEs are likely to be compliant where transactions are not cash-based since there is evidence of business having taken place (Mohamad, Zakaria and Hamid, 2016). Sixth, much as systems vary from one country to the other, automation of tax filing is generally acceptable among many SMEs even though with some challenges (Khan & Javed, 2017). Finally, tax morale has been empirically shown to have an impact on tax compliance (Cyan *et al.* 2016).

In view of the literature reviewed, study findings and the conceptual gaps identified in various studies, the researcher settled on taxpayer awareness, cost of compliance, and tax morale as independent variables to investigate their effect on VAT compliance. The moderating effect of automation on taxpayer awareness, cost of compliance, and tax morale with VAT compliance was also considered.

2.6 Conceptual Framework

The conceptual framework is a graphic representation of the link between the studied variables (Creswell, 2003). The variables in the study are five where dependent variable is value added tax (VAT) compliance, the independent variables are three; taxpayer awareness, cost of compliance and tax morale; and moderating variable is automation as displayed in figure 2.1.

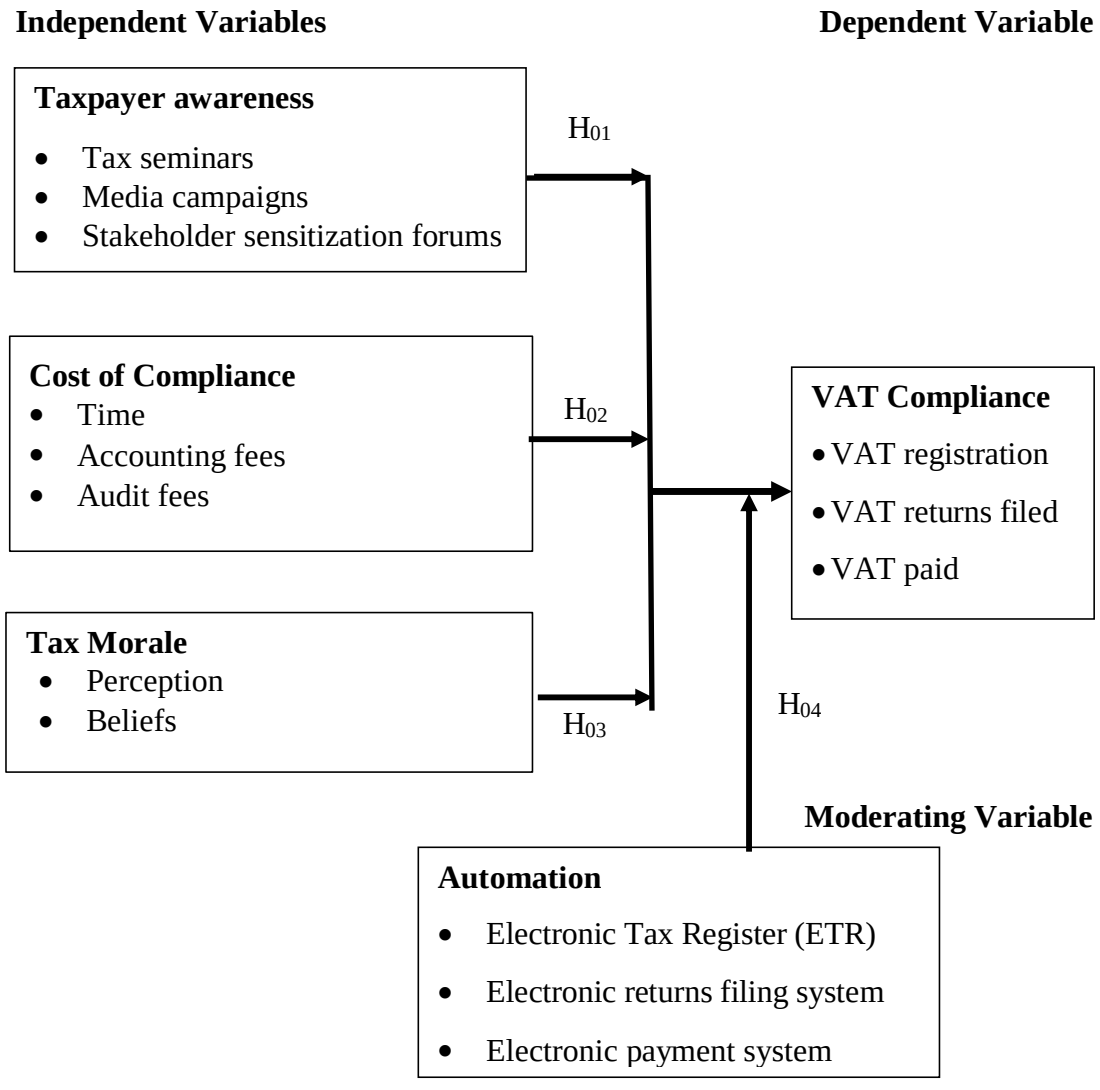

Figure 2.1: Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The approach utilized to conduct this investigation is discussed in this chapter. It focused on the study's research design, target population, sample technique and sample size, data collection tools, research instrument validity and reliability, data gathering procedure, data analysis approach, and ethical considerations.

3.1 Research Design

Burns and Grove (2001) believe that research design allows researchers to plan and conduct research in such a way that the planned results are easily realized. This increases the likelihood of receiving information that may be relevant to a real situation. The research design is a plan that outlines techniques and strategies for how information should be collected for assessment or evaluation, including identifying the data collection method, the tools to be used, the management of the tools, and the organization of the information to be analyzed (Lawrence, 2012).

Explanatory research was used in this study. Explanatory research aims to explain why things happen and anticipate what will happen in the future. Hypotheses that determine the type and direction of the link between or among the variables evaluated characterize explanatory investigations. The purpose is frequently to summarize the findings for the population from which the sample was drawn (Fowler, 2002). This form is appropriate for research since it enables the researcher to summarize the findings for a larger group of people (Schindler & Cooper, 2003).

3.2 Target Population

The aggregate number of individuals or the entire research environment is referred to as the target population by Oso and Onen (2011). The study's target audience included

manufacturing small and medium businesses that compute, file returns, and pay VAT in the East of Nairobi tax district. According to Micro and Small Enterprises Authority Strategic Plan (MSEA, 2021), there are 110,796 small and 10,923 medium enterprises in Kenya making a total of 121,719 SMEs out of which 63% are in Nairobi representing 76,683 SMEs (Micro and Small Enterprises Strategic Plan, 2020-2024).

Within the East of Nairobi tax district there are 15,200 SMEs (MSEA, 2021). Among these SMEs, the manufacturing sector has 60% of the SMES, making a total of 9,120 (60% multiplied by 15,200 SMEs in the manufacturing sector) manufacturing SMEs (KNBS, 2020 & KAM, 2021). This is the population that the study targeted. Of these, the study was subjected to the owners, partners, family members in the SMEs and VAT accounting employees since these businesses do not have complex management structures. This was meant to ensure that the responses provided were as sincere and as factual as possible.

3.3 Sampling Procedure and Sample Size

The methodologies used to identify the key types of respondents for the study are described in this section.

3.3.1 Sampling Procedure

According to Kothari (2006), sampling allows researchers to assess unknown population characteristics and generate summaries with general accuracy. A random sample is used where each person or element has an equal chance of being represented (Cooper & Schindler, 2003). Stratified sampling was used in order to ensure that the different categories of SMEs in manufacturing sector were adequately represented in the sample.

The study purposely targeted the business owners and partners in the businesses to fill the questionnaire. Stratified purposive sampling is an unbiased sampling method used to group heterogeneous populations into homogeneous subgroups and then select within each subgroup to ensure representativeness. According to Kothari (2004), individuals are chosen from a stratified random sample in such a way that the population's existing subgroups are more or less represented.

3.3.2 Sample Size

A sample is a subset of the entire population, or a selection of the population (Lohr, 2010). The number of observations or iterations to be included in the statistical sample is chosen when establishing the sample size. The sample size for this investigation was calculated using Bridget and Lewin's formula (2005). This formula assumes a normal distribution with the assumption that SMEs are normally distributed according to the parameters examined.

Using the formula and a precision level of 5%, desired sample size was determined as indicated.

$$n = \frac{N}{1 + N(e)^2} = \frac{9{,}120}{1 + 9{,}120(0.05)^2} = \mathbf{383\ SMEs}$$

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

This sample size was considered adequate since it is greater than 1% sample size of the target population (Gravetter & Forzano, 2012). The sample was purposively distributed across all manufacturing sectors. These sectors include textile & apparel,

plastics & rubber, timber sector, automotive sector, food & beverages, leather & footwear, chemical & allied and metal & allied as shown in Table 3.1.

Table 3.1: Sampling Frame

Sector	Population	Percentage	Sample
Textile & Apparel	776	8.5	33
Plastics & Rubber	831	9.0	34
Electrical & Electronics	843	9.2	35
Timber Sector	688	7.5	29
Building & Construction	967	10.6	41
Automotive Sector	1048	11.5	44
Food & Beverages	981	10.8	41
Paper Sector	238	2.6	10
Leather & Footwear	714	7.9	30
Chemical & Allied v	708	7.8	30
Pharmaceutical Sector	443	4.9	19
Metal & Allied	883	9.7	37
Total	**9120**	**100**	**383**

3.4 Data Types and Sources

Both quantitative and qualitative data was used in this study. Questions were formulated and data collected using self-administered questionnaire. This was used as the main instrument for collecting primary data from each respondent. Cooper and Schindler (2012) show that questionnaires work best with standard questions that are bound to be interpreted the same way by all respondents. Moreover, they claim that the questionnaire is mainly used for descriptive or explanatory research. For the purposes of this study, the questionnaire was based on closed-ended questions aimed at generating short and specific responses from participants. The questionnaire was prepared in the form of a five-point Likert scale and organized in line with the research objectives. Five-point Likert scale was deemed appropriate for the study since it is easily understood by respondents and effective in evaluating results from a large sample of respondents (Creswell, 2014).

3.5 Data Collection Procedure

Before starting data collection, necessary approval was received, including a cover letter from the university and NACOSTI license. Upon clearance, the questionnaires were administered by the researcher with the help of research assistants directly to the respondents at their workstation. For respondents who needed guidance of filling the questionnaire, the researcher and or assistants read and filled the responses on their behalf based on their responses. The researcher engaged three research assistants who had a training background in statistics and were experienced in data collection activities.

3.6 Pilot Study

A pilot study, according to Payne (2016), is a scaled-down replica of a full-scaled study that is carried out exactly as planned for the original study but on a smaller size. Pilot study is essential in establishing appropriateness of a research instrument before it is subjected to the respondents. Pilot studies help pre-test a particular research instrument such as a questionnaire or an interview guide in order to check for problems in understanding questions in the way they are worded, clarity of instructions as well as any other problem inherent in the data collection instrument that may affect collection of data in a systematic and economical manner.

A pilot test was carried on a smaller group of SMEs representing 10% of the sampled population within Nairobi South tax district among the manufacturers who were not part of the sampled respondents for the main study twice to pre-test questions in the questionnaire (Mugenda & Mugenda, 2003).

The respondents were encouraged to make comments and suggestions in questions that were not clear. The questionnaire was then adjusted based on the comments of

the respondents and given to them for the second time. The scores of the first and the second time was recorded and correlated to test for reliability of the questionnaire.

3.6.1 Reliability Test

The questionnaire was tested for reliability during the pilot study. A test re-test technique was used which involve issuing the same instrument twice to a different group after a certain time interval has elapsed since the previous test. The results of the first- and second-time tests were recorded and compared to see if the instrument was reliable. In this study, the Cronbach's Alpha Coefficient was used to assess the instrument's measure of reliability. An acceptable indicator of internal consistency was a test with reliability values greater than or equal to 0.7. (Mohsen and Reg, 2011).

3.6.2 Validity Test

Validity of a research instrument assesses the extent to which the instrument measures what it is designed to measure (Mohajan, 2017). This is high when the research covers what you want to learn and nothing else. The research objectives were used to determine content validity. Individual questions were created to see if the formulation of the elements used to measure a concept is related to that concept or one of its dimensions. This is done to guarantee that each metric accurately examines the design it is supposed to assess. The questionnaire was then verified by the supervisory authority. The supervisor reviewed the contents of the questionnaire and gave advise to ensure that the instrument aimed at getting responses that contribute to achievement of the study objectives.

3.6.3 Diagnostic Tests

Diagnostic tests are usually carried out to empirically determine the quantitative effect of study design shortcoming of estimates of diagnostic accuracy according to Wheeler and Tiefelsdorf (2005). The study conducted diagnostic tests before the data was

analyzed to validate the accuracy and reliability of the findings. Normality, heteroscedasticity, linearity, and multicollinearity tests were performed. The concept was that VAT compliance is linked to taxpayer awareness, compliance costs, and tax morale. Moderating effect of automation on of taxpayer awareness, compliance costs, and tax morale on VAT compliance was thereafter considered. The study also assumed that errors were normally distributed, there was equal variance around the regression line during the analysis of the variables and that the relationship was independent of one another to diagnostically test the relationship between the variables.

3.6.3.1 Normality Test

The normality test is performed to see if a data set is evenly distributed. The visual representation of the test result distribution decides whether it follows a bell-shaped normal curve (Amata, 2017). The Shapiro Wilk Test was used to determine normality, which is considered the most powerful test for all sorts of distributions and sample sizes (Razali & Yap, 2011).

3.6.3.2 Heteroscedasticity Test

The distribution of the residual or error term throughout the graph is a critical assumption of linear regression, and if this assumption is broken, the statistical results may be skewed due to biased coefficients. Heteroscedasticity refers to the fact that the variance of the regression line's errors is not constant and not homoscedastic (Pallant 2010). The Breusch-Pagan-Godfrey test was used to test heteroscedasticity in the regression model.

3.6.3.3 Linearity Test

Multiple linear regressions models require that the relationship between dependent and independent variables be linear in order for analysis to be reliable and valid (Hair

et al. 2010). One way to confirm linearity is through producing scatter plots of the relationship between each of dependent and independent variables.

3.6.3.4 Multicollinearity Test

Testing for multicollinearity among independent variables is crucial, according to Zainodin and Yap (2011), because multicollinearity leads to many errors in data analysis. According to Alin (2010), when two or more independent variables are linearly dependent on each other, just one of them should be used in data analysis rather than the two or more, as this increases standard errors and biases the results. Using a Variance Inflation Factor (VIF) of values to measure whether the independent variables (IVs) suffer multicollinearity problem, a VIF value ≥10 shows there is a multicollinearity while any VIF value <10 with a tolerance factor of ≥ 0.2 is ideal and acceptable measure of multicollinearity.

3.7 Limitations of the Study

The research project had some limitations as it did not achieve a 100% response rate. One issue is that taxpayers were hesitant to complete questionnaires for fear of their responses being used against them in the event of a dispute or being forwarded to the tax authorities. However, these restrictions were relaxed by assuring respondents that the data collected would only be used for academic research.

3.8 Data Analysis Techniques and Presentation

Data analysis is a multi-step process that begins with data gathering and finishes with interpretation and processing (Cresswell, 2015). As a result, before the answers were processed, the entire questionnaire was checked for completeness and consistency. The data was analyzed using both quantitative and inferential methods. The table shows the quantitative statistics generated as percentages and average values. Linear regression was used to show a linear relationship between the independent variables

and dependent variable. The study adopted normality, and multiple regression to measure the degree to which the dependent variable was affected by the independent variables. ANOVA t- and f- tests were used to measure the significance of the model while measuring the relationship between determinants of VAT compliance at 95% confidence level and 5% significance level. Significance level of between 90% and 99% are sufficient to make conclusion on the model's significance while tested at P value. The strength and direction of the relationship between the dependent variable and each independent variable were determined and measured using Pearson correlation analysis (r). The coefficient of determination (r^2) is a statistic that indicates how much of the variance in the dependent variable can be explained by the independent variable.

3.9 Analytical Model Specification

The study used three multiple regression models as follows:

$$\mathbf{Y= \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + Ɛ} \text{ ……. (1)}$$

Where: Y – Value Added Tax compliance

β_0 – intercept

β_1– β_3 - regression coefficient of independent variables

X_1 – taxpayer awareness

X_2 – cost of compliance

X_3 – tax morale

Ɛ – error term, it considers all the possible factors that would possibly influence the dependent variable though not captured in the model.

Equation (2) demonstrates the regression analysis between taxpayer awareness, cost of compliance, tax morale and automation on VAT compliance.

$$\mathbf{Y= \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + Ɛ} \text{ ……..……. (2)}$$

Where: Y – Value Added Tax compliance

β_0 – intercept

β_1– β_4- regression coefficient of independent variables

X_1 – taxpayer awareness

X_2 – cost of compliance

X_3 – tax morale

X_4 – automation

Ɛ – error term, it considers all the possible factors that would possibly influence the dependent variable though not captured in the model.

Equation (3) demonstrates the moderating effect of automation on the relationship between each of the independent variables and dependent variable. The study adopted Baron and Kenny (1986) moderation approach.

$$\mathbf{Y= \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+ \beta_5X_1X_4+ \beta_6X_2X_4+ \beta_7X_3X_4 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)}$$

Where: Y = Value Added Tax Compliance

β_0 – Intercept

β_1– β_7 = regression coefficient of independent variables

X_1 = Taxpayer awareness

X_2 = Cost of compliance

X_3 = Tax morale

X_4 = Automation

$X_5 = X_1X_4$ = Taxpayer awareness * Automation

$X_7 = X_2X_4$ = Cost of Compliance * Automation

$X_7 = X_3X_4$ = Tax morale * Automation

3.10 Operationalization and Measurement of Variables

Table 3.2 presents the measurements and operationalization of the study variables.

Table 3.2: Operationalization and Measurement of Variables

Type	Variable	Measurement Indicators	Source	Data Collection Instrument & Measurement Scale	Analysis Method
Dependent Variable	Value Added Tax (VAT) Compliance	• VAT registration. • VAT returns filed. • VAT paid	Mohamad, Zakaria & Hamid (2016) Newman *et al.* (2018)	Questionnaire 5 – Point Likert Scale	• Regression Analysis • Correlation Analysis • Correlation Analysis
Independent Variables	Taxpayer awareness	• Tax seminar • Media campaigns • Stakeholder sensitization forums	Eragabhe & Modgu (2014) Arnaout & Esposito (2018 Puspasari (2021)	Questionnaire 5 – Point Likert Scale	• Regression Analysis • Correlation Analysis • Correlation Analysis
	Cost of Compliance	• Time • Accounting fees • Audit fees	Huerta *et al.* (2017) Pope (2016), Maseko (2014)	Questionnaire 5 – Point Likert Scale	• Regression Analysis • Correlation Analysis • Correlation Analysis
	Tax morale	• Perception • Beliefs	Brink & Porcano (2016) Cyan *et al.* (2016)	Questionnaire 5 – Point Likert Scale	• Regression Analysis • Correlation Analysis
Moderating variable	Automation	• Electronic Tax Register (ETR) • Electronic filing of returns • Electronic payment system	Ringim, Razalli and Hasnan (2012)	Questionnaire 5 - Point Likert Scale 5 – Point Likert Scale	• Regression Analysis • Correlation Analysis • Correlation Analysis

3.11 Ethical Considerations

The researcher assured respondents that all the information provided would be treated with utmost confidentiality and that their identity would always be protected. The researcher also adhered to all ethical issues of honesty, privacy, cultural sensitivity, informed consent, and voluntary participation. Moreover, respect for intellectual property was ensured by honoring patents, copyrights, and acknowledgement of other contributions from various parties and scholars. Permission was obtained from Moi University and NACOSTI to undertake data collection. The ethics of the survey was supported by the protection of respondents' rights, namely anonymity and confidentiality. This was done by informing respondents in advance about the importance of the survey and voluntary participation. In addition, respondents were told that they could opt out of the survey at any time if they felt uncomfortable continuing with it. Personal data such as name and address were not passed on.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

The findings and interpretation of the variables, such as the response rate, inferential, and descriptive statistics, are presented in this chapter. Multiple regressions and correlation analyses were used. Taxpayer awareness, cost of compliance and tax morale were the study's independent variables. Automation was the moderating variable. Value added tax compliance among small and medium manufacturing companies in the East of Nairobi tax district was the dependent variable.

4.1 Reliability of Research Instruments

The degree to which a research instrument produces consistent outcomes or data after repeated trials is known as reliability. It contributes to the standardization of research tools, allowing the findings of a study to be applied to a larger population. To achieve reliability Cronbach Alpha of more than 0.7 should be attained. The findings of this research are presented in table 4.1 where taxpayer awareness, cost of compliance, tax morale and automation had Cronbach's Alpha of 0.868, 0.779, 0.826 and 0.943 respectively hence they were found to be reliable. With a Cronbach Alpha of 0.881, value added tax compliance was likewise found to be trustworthy.

Table 4.1: Test of Reliability of Questionnaire

Factor	Number of Items	Cronbach Alpha score	Conclusion
Taxpayer awareness	5	0.868	Reliable
Cost of compliance	5	0.779	Reliable
Tax Morale	4	0.826	Reliable
Automation	5	0.943	Reliable
VAT compliance	5	0.881	Reliable

4.2 Response Rate

As indicated in Figure 4.1, the study circulated 383 questionnaires, 278 of which were fully completed and returned, resulting in a total response rate of 72.6 percent. Return rates of 50% are acceptable for analysis and publication, 60% are good, and 70% are exceptional, according to Babbie (2004). The study's response rate of 72.6 percent was deemed appropriate.

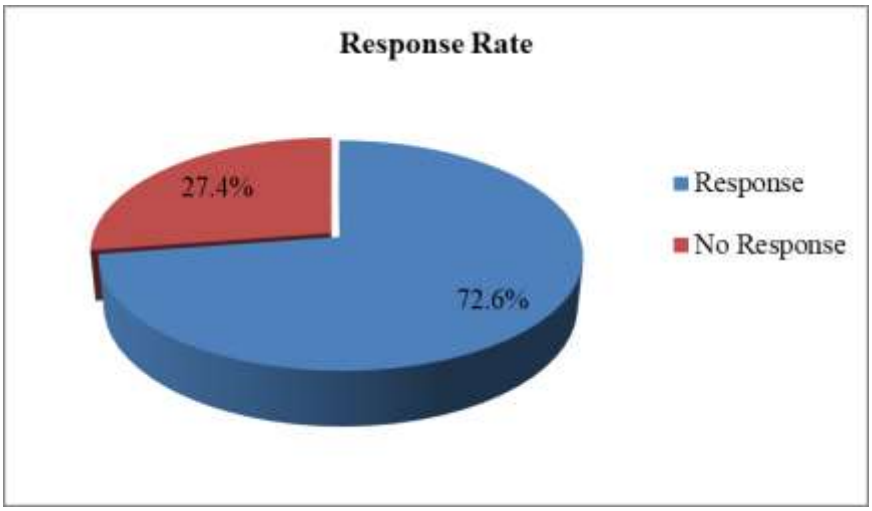

Figure 4.1: Response Rate
Survey Data (2021)

4.3 Demographic Characteristic

The study found it necessary to determine the demographic information of the participants from the data collected through the questionnaires to gain a better understanding of the sample.

4.3.1 Gender of the respondents

The study categorized the respondents according to gender and the findings indicated that most of the respondents were male representing 52.5% while female represented 47.5% of all the respondents.

Table 4.2: Respondent Gender

Gender	Frequency	Percentage
Male	146	52.5
Female	132	47.5
Total	**278**	**100**

4.3.2 Age

The respondents were also asked to indicate their age range. The majority of respondents (40.3 percent) were between the ages of 29 and 39, 32 percent were between the ages of 18 and 28, 16.2 percent were between the ages of 40 and 49, 7.2 percent were between the ages of 50 and 59, and 4.3 percent were over the age of 60, according to Table 4.3.

Table 4.3: Respondents' Age Group

Age Group	Frequency	Percentage
18 – 28 years	89	32.0
29 – 39 years	112	40.3
40 – 49 years	45	16.2
50 – 59 years	20	7.2
Above 60 years	12	4.3
Total	**278**	**100**

4.3.3 Level of Education

In addition, the survey determined the respondents' educational level. Results in table 4.4 show that majority 46.7% had acquired secondary school education, 42.1% had tertiary education, 8.3% had none while 2.9% had primary education.

Table 4.4: Highest Level of Education

Qualification	Frequency	Percentage
Primary	8	2.9
Secondary	130	46.7
Tertiary	117	42.1
None	23	8.3
Total	**278**	**100**

4.3.4 Position

The study sought to establish the position of respondents. Results revealed that 45.7% were the business owners, 41.7% were partners in the businesses, 8.3% were employees in the businesses and lastly, 4.3% were the family members. The results demonstrate majority of the businesses were operated by the owners.

Table 4.5: Position

Position	Frequency	Percentage
Owner	127	45.7
Partner	116	41.7
Employee	23	8.3
Family	12	4.3
Total	**278**	**100**

4.3.5 Business Registered

The research sought to know if the business is registered with government business registration services and the findings were indicative that most of the respondents had registered businesses representing 77.3% while non-registered businesses represented 23.7%.

Table 4.6: Business Registered

Registered	Frequency	Percentage
Yes	215	77.3
No	63	23.7
Total	**278**	**100**

4.3.6 Registered for Value Added Tax

The research sought to find out if the business is registered for value added tax (VAT) and the findings were that most of the respondents were registered representing 75.2% while non-registered represented 24.8% of all the respondents.

Table 4.7: Registered for Value Added Tax

Registered	Frequency	Percentage
Yes	209	75.2
No	69	24.8
Total	**278**	**100**

4.3.7 Business Annual Turnover

The respondents were also asked about their annual business turnover in KES. This was to gauge their eligibility for VAT registration. Majority of the respondents indicated that their annual turnover was above KES 15 Million at 48.6%, followed by those within KES 10-15 Million at 39.2%. Businesses with annual turnover of KES 5-10 Million were 10.8% while those within KES 1-5 Million were 1.4%.

Table 4.8: Annual Turnover in the Business

Turnover	Frequency	Percentage
KES 1-5 Million	4	1.4
KES 5-10 Million	30	10.8
KES 10-15 Million	109	39.2
Above KES 15 Million	135	48.6
Total	**278**	**100**

4.4 Descriptive Statistics

This section discusses descriptive statistics on taxpayer awareness, cost of compliance, tax morale, automation and VAT compliance.

4.4.1 Taxpayer Awareness

The goal of the study was to see how taxpayer knowledge affected value-added tax compliance among small and medium manufacturing businesses. Results in table 4.9 prove I know that businesses that have or anticipate their annual turnover to be KES 5 million and above are required to register for VAT with a mean score of 4.31. Respondents agreed that I know that there are goods and services which are zero (0%) rated, 8% rated and 16% rated as per the requirements of VAT legislation with mean of 3.77. The statement I am aware that value added tax (VAT) is computed as the difference between VAT on goods and services sold by the business and VAT on goods and services purchased from other businesses had a mean score of 4.39. Results also indicated that I am aware that value added tax (VAT) is computed, filed and tax due is paid on or before the 20th of every month succeeding the month in which sales were made going by the mean of 4.43. On whether I am aware that collecting and failing to remit VAT revenue due for the month in which it was realized amounts to tax evasion which is punishable by law had an aggregate score of 4.91.

Table 4.9: Taxpayer awareness

Statements	Mean	Std. Deviation
I know that businesses that have or anticipate their annual turnover to be KES 5 million and above are required to register for VAT	4.31	.378
I know that there are goods and services which are zero (0%) rated, 8% rated and 16% rated as per the requirements of VAT legislation	3.77	.631
I am aware that value added tax (VAT) is computed as the difference between VAT on goods and services sold by the business and VAT on goods and services purchased from other businesses	4.39	.674
I am aware that value added tax (VAT) is computed, filed and tax due is paid on or before the 20th of every month succeeding the month in which sales were made	4.43	.570
I am aware that collecting and failing to remit VAT revenue due for the month in which it was realized amounts to tax evasion which is punishable by law	4.91	.649
Mean	**4.36**	

4.4.2 Cost of compliance

The second objective entailed the need to determine the effect of cost of compliance on value added tax compliance among small and medium manufacturing enterprises. Table 4.10, Computation, filing and payment of Value Added Tax (VAT) consumes significant time that would have been spent on business had a mean score of 4.07. iTax system of filing returns, generating e-slip and making payment is complicated hence consumes business time with a mean score of 3.16. Respondents also agreed Hiring tax agents and auditors is expensive, and this somehow discourages our firm from being compliant with a mean score of 4.35, In regard to My business hires an auditor to audit my books of accounts for the purposes of being tax compliant and to avoid tax fines and penalties respondents agreed with an aggregate score 4.47. Additionally, respondents agreed on It is costly to install, train and maintain

accounting software that helps me keep records of VAT sales and VAT purchases with a mean score of 4.28.

Table 4.10: Cost of compliance

Statements	Mean	Std. Deviation
Computation, filing and payment of Value Added Tax (VAT) consumes significant time that would have been spent on business.	4.07	.236
iTax system of filing returns, generating e-slip and making payment is complicated hence consumes business time.	3.16	.233
Hiring tax agents and auditors is expensive, and this somehow discourages our firm from being compliant	4.35	.852
My business hires an auditor to audit my books of accounts for the purposes of being tax compliant and to avoid tax fines and penalties.	4.47	.350
It is costly to install, train and maintain accounting software that helps me keep records of VAT sales and VAT purchases.	4.28	.691
Mean	**4.06**	

4.4.3 Tax Morale

The goal of the study was to see how tax morale affected value added tax compliance among small and medium manufacturing businesses. Results in table 4.11 prove that When I pay taxes my contribution does not count due to misappropriation of tax revenue by the government with a mean score of 3.68, respondents agreed that I believe that tax revenue is often lost due to corruption and that discourages me from being compliant with mean score of 4.07, I pay the taxes due because it is a moral obligation with an aggregate score of 4.18. I trust the government with my tax contributions, and this encourages me to effectively comply with all tax requirements with a mean score of 4.53, while agreement was made on my faith often encourages me to pay all my taxes as provided for in tax laws because it is the right thing to do with an aggregate score of 4.45.

Table 4.11: Tax morale

Statement	Mean	SD
When I pay taxes, my contribution does not count due to misappropriation of tax revenue by the government.	3.68	0.41
I believe that tax revenue is often lost due to corruption and that discourages me from being compliant.	4.07	0.58
I pay the taxes due because it is a moral obligation.	4.18	0.30
I trust the government with my tax payments, and this encourages me to effectively comply with all tax requirements.	4.53	0.39
My faith often motivates me to pay all my taxes as provided for in tax laws because it is the right thing to do.	4.45	0.87
Mean	**3.94**	

4.4.4 Automation

The goal was to source data from respondents in order to ascertain the effect of automation on value added tax compliance among small and medium manufacturing enterprises. Making inferences from statistics presented on table 4.12, My business owns and uses ETR machine to issue VAT invoices and receipts for all sales made in my businesses with a mean score of 4.68. I choose when to and not to issue electronic tax register receipts and invoices depending on the prevailing circumstances with a mean score of 4.08. Respondents agreed that my business initiates VAT returns filing, and payment of taxes due using the iTax system with a mean score of 3.23. I know how to check and confirm my business ledger and correct any wrong entries that might have been made during data entry had a mean 3.89.

Table 4.12: Automation

Statement	Mean	Std. Deviation
My business owns and uses ETR machine to issue VAT invoices and receipts for all sales made in my businesses.	4.68	.338
I choose when to and not to issue electronic tax register receipts and invoices depending on the prevailing circumstances.	4.08	.319
My business initiates VAT returns filing, and payment of taxes due using the iTax system.	3.23	.228
I know how to check and confirm my business ledger and correct any wrong entries that might have been made during data entry.	3.89	.275
Mean	**3.97**	

4.4.5 VAT Compliance

The study sought to establish the effect of Value Added Tax Compliance. Results in table 4.13 prove that My business pays VAT due as per the computed differences between the Sales VAT and Purchases VAT each month as required by the law with a mean score of 4.86, respondents agreed that My business makes VAT returns for every month and has never been late as per the requirement of VAT regulations with mean score of 4.65. My business was penalized for late returns and complete failure to account for the VAT due within the last one year with a mean score of 3.71. Computation, filing and payment for VAT due is complex and encourages involuntary non-compliance with a mean score of 3.15; while agreement was made on Our business pays VAT by the due date because we believe it is morally right with an aggregate score of 4.94.

Table 4.13: VAT Compliance

Statement	Mean	SD
Our business pays VAT due as per the computed differences between the Sales VAT and Purchases VAT each month as required by the law.	4.86	0.74
Our business makes VAT returns for every month and has never been late as per the requirement of VAT regulations.	4.65	0.58
Our business was penalized for late returns and complete failure to account for the VAT due within the last one year.	3.71	0.42
Computation, filing and payment for VAT due is complex and encourages involuntary non-compliance.	3.15	0.28
Our business pays VAT by the due date because we believe it is morally right	4.94	0.99
Mean	**4.54**	

4.5 Assumptions of Regression

Before analyzing the results, statistical assumptions were used to check whether the data met the assumptions of normality and collinearity, and tests for associations and predictions were performed based on these results.

4.5.1 Test of Normality

The Shapiro-Wilk test was employed to determine whether or not the data was normal. This test detects the presence of bias, excess, or both to determine the degree of normalcy of the data. With figures above 0.05, Shapiro-Wilk statistics range from zero to one, suggesting that the data are normal (De Vos, Strydom, Fouche & Delport, 2011).

The Shapiro-Wilk test was used to check for normality, and the findings showed that all variables were above 0.05 ($p>0.05$), indicating that the data was normal. The assumption of normality is that the sample mean distribution is normal. The P values for the Shapiro-Wilk test for taxpayer awareness, compliance costs, tax morale, automation, and VAT compliance are 0.56 for taxpayer awareness, 0.49 for

compliance costs, 0.37 for tax morale, 0.16 for automation, and 0.68 for VAT compliance. At the 95 percent confidence level, all p-values were above the 0.05 limit, indicating that the data was taken from a normally distributed population.

Table 4.14: Tests of Normality

	Shapiro-Wilk	
	Statistic	**Sig**
Taxpayer awareness	1.034	0.56
Cost of compliance	0.309	0.49
Tax Morale	1.872	0.37
Automation	1.872	0.16
VAT compliance	1.064	0.68

a. Lilliefors Significance Correction

4.5.2 Homoscedasticity Test

Lani (2011) states that the assumption of homoscedasticity is the center of the linear regression model. Homoscedasticity describes a situation where the error is the same for all values of the independent variable. Heteroscedasticity occurs when the size of the error term differs in the value of different independent variables. The effect of violating the assumption of homoscedasticity is gradual and increases with increasing heteroscedasticity. The Breusch-Pagan-Godfrey test was performed in Table 4.15.

Table 4.15 Homoscedasticity Test

F-statistic	1.619436	Prob. F (3,6)	0.2813
Obs*R-squared	4.474278	Prob. Chi-Square (3)	0.2146
Scaled explained SS	0.454489	Prob. Chi-Square (3)	0.9288

Table 4.15 showed the results from the Breusch-Pagan-Godfrey test with results showing F (3, 6) 0.2813 $p>0.05$. Conclusion was that the assumption for homoscedasticity was not violated.

4.5.3 Linearity Test

Tests were conducted to determine whether the relationship between the independent variable and the dependent variable was linear or not. The assumption tested on table 4.16 show linearity, if the p value > 0.05. If the p value is less than <0.05, then there is nonlinearity and the assumption is violated.

Table 4.16 Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Value Added Tax compliance*	Between Groups	(Combined)	.028	276	.001	2.101	.218
		Linearity	.001	1	.001	2.759	.158
		Deviation from Linearity	.001	1	.001	1.444	.283
	Within Groups		.002	5	.000		
	Total		.038	278			

The deviation from linearity showed that there was p value of 0.283 p>0.05 therefore the assumption of linearity hasn't been violated.

4.5.4 Multicollinearity Test

Multicollinearity is a phenomenon in which independent variables have a strong correlation. When there is a high correlation between these predictor variables in multiple regression models, this results in an incorrect estimate of the regression coefficient. When attempting to evaluate the extent to which various independent factors assist to comprehend the dependent variable, this produces strange findings (Creswell, 2014).

Multicollinearity increases the standard error of beta estimations, resulting in lower reliability and findings that are frequently confusing and misleading. A multicollinearity test was used to see if one or more of the study's variables were substantially associated with one or more of the other independent variables. The Variance Inflation Factor (VIF) estimates the variance to rise due to a linear relationship with other explanatory factors by measuring the degree of correlation between the predictor variables. The test is carried out by calculating the VIF and its reciprocity, tolerance.

In this study, tolerance was in the range of 0.227 to 0.306 and thus reciprocal, with a VIF between two and six, which is below the maximum threshold. It is generally accepted that a VIF of 10 or higher (conservatively above 5) indicates severe multicollinearity affecting research (Osborne & Waters, 2014). The tolerance threshold below 0.2 indicates collinearity (Ary, Jacobs & Sorensen, 2015). The results showed that there was no problem with multicollinearity. The survey variable shows a VIF score of 2.232 for taxpayer awareness, 4.190 for compliance efforts, 5.567 for tax morale, and 2.090 for automation that was less than 10. This indicated that there is no multicollinearity in the data set.

Table 4.17: Multicollinearity Tests

(Constant)	**Collinearity Statistics**	
	Tolerance	**VIF**
Taxpayer awareness	0.242	2.232
Cost of compliance	0.227	4.190
Tax Morale	0.306	5.567
Automation	0.254	2.090

Dependent Variable: Value Added Tax Compliance

4.6 Correlation Analysis

Pearson correlation coefficient (r) was used to assess strength of association between the study variables. Where (r) is more than 0.7, variables indicate strong correlation. The findings of the correlation study are shown in Table 4.18. As indicated in the results (r=0.675 and p=0.000<0.05), taxpayer awareness is favourably and substantially associated to VAT compliance. The results also show that cost of compliance is negatively and meaningfully related with VAT compliance (r= -0.665 and p=0.000<0.05). Further, results show that tax morale is positively and meaningfully related with VAT compliance (r=0.659 and p=0.000<0.05). Additionally, table 4.18 shows the moderating effect of the moderating variable Automation, which (r=0.151 and p =0.000<0.05) indicating that automation had positive and statistically significant correlation with VAT compliance.

Table 4.18: Correlation Analysis

		VAT compliance	Taxpayer awareness	Cost of compliance	Tax morale	Automation
VAT compliance	Pearson Correlation	1				
	Sig. (2-tailed)					
Taxpayer awareness	Pearson Correlation	.675**	1			
	Sig. (2-tailed)	.000				
Cost of compliance	Pearson Correlation	-.665**	-.746**	1		
	Sig. (2-tailed)	.000	.000			
Tax morale	Pearson Correlation	.659**	.842**	-.692**	1	
	Sig. (2-tailed)	.000	.000	.000		
Automation	Pearson Correlation	.151**	.165**	.351**	.182**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
N		**278**	**278**	**278**	**278**	**278**

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

Source: Research Data, (2021)

4.7 Regression Analysis without Moderation (Direct Effect)

The study's main goal was to look at the factors that influence VAT compliance among small and medium manufacturing businesses in Nairobi's East tax zone. Four objectives and assumptions were developed and formulated in order to reach this goal. Multiple regression analysis and inferential statistical methods were used in the investigation.

4.7.1 Model Summary

The results in Table 4.19 show that taxpayer awareness, compliance efforts and tax morale have a strong relationship with VAT compliance up to 72.8% or (R = 0.728). The findings showed that taxpayer awareness, compliance costs and tax morale caused deviations of 53.1% or (R^2 = 0.531 and adjusted R^2 = 0.525) on VAT compliance. That is, the remaining 46.9% is caused by other factors that are not included in the model, such as attitudes, behavior of taxpayers, among others.

Table 4.19: Model Summary of Taxpayer Awareness, Cost of Compliance, Tax Morale on Value Added Tax Compliance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.728[a]	.531	.525	.38799

Source: Research Data, (2021)

a. Predictors: (Constant), Taxpayer awareness, Cost of compliance, Tax morale

4.7.2 Regression Coefficients

Regression analysis was used to see how well the model explained the relationship between taxpayer awareness, cost of compliance, and tax morale in the context of VAT compliance.

Table 4.20: Effect of Taxpayer Awareness, Cost of Compliance and Tax Morale on Value Added Tax Compliance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.714	.384		9.678	.000
	Taxpayer awareness	.194	.071	.230	2.718	.007
	Cost of compliance	-.234	.045	.328	-5.197	.000
	Tax morale	.164	.054	.239	3.063	.002

a. Dependent Variable: VAT Compliance

Source: Research Data, (2021)

Régression Equation

$Y = 3.714 + .194X_1 - .234X_2 + .164X_3$

Whereby: Y = Value Added Tax Compliance

β_0 – intercept

$\beta_1 - \beta_3$ - regression coefficient of independent variables

X_1 -taxpayer awareness

X_2 -cost of compliance

X_3 – tax morale

The regression equation shows a constant of 3.714, a unit change in taxpayer awareness causes an increase of 0.194 in VAT compliance, a unit change in compliance costs will reduce VAT compliance by 0.234, and a unit change in tax morale causes an increase of 0.164 on VAT compliance.

4.7.3 Taxpayer Awareness, Cost of Compliance, Tax Morale and Automation model summary

The second regression analytical model was between Tax Awareness, Cost of Compliance, Tax Morale and Automation on VAT compliance. Table 4.21 show that taxpayer awareness, compliance efforts, tax morale and automation have a strong relationship with VAT compliance up to 72.9% or (R = 0.729). The findings showed that taxpayer awareness, compliance costs, tax morale and automation caused deviations of 53.1% or (R^2 = 0.531 and adjusted R^2 = 0.524) on VAT compliance. That is, the remaining 46.9% is caused by other factors that are not included in the model, such as attitudes, behavior of taxpayers, and others.

Table 4.21: Model Summary of Taxpayer Awareness, Cost of Compliance Tax Morale and Automation on Value Added Tax Compliance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.729[a]	.531	.524	.38862

a. Predictors: (Constant), Automation, Cost of Compliance, Tax Morale, Taxpayer Awareness

4.7.4 Tax Awareness, Cost of Compliance, Tax Morale and Automation Analysis of variance

Table 4.22 presented the ANOVA test showing an F statistics value of 77.224 with a significance level of P=0.000<0.05, hence, establishing the model is statistically significant. The implication was that each independent variable contributed significantly to changes in the dependent variable.

Table 4.22: Taxpayer Awareness, Cost of Compliance, Tax Morale and Automation on Value Added Tax Compliance Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	46.651	4	11.663	77.224	.000[b]
	Residual	41.230	273	.151		
	Total	87.880	277			

a. Dependent Variable: VAT Compliance

b. Predictors: (Constant), Taxpayer Awareness Cost of Compliance, Tax Morale, Automation

4.7.5 Taxpayer Awareness, Cost of Compliance, Tax Morale and Automation Regression Analysis Model

The regression analysis model exhibited between taxpayer awareness, cost of compliance and tax compliance and Automation as shown in table 4.23.

Table 4.23: Taxpayer Awareness, Cost of Compliance, Tax Morale and Automation Regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.718	.385		9.668	.000
	TaxpayerAwareness	.175	.059	.207	2.966	.012
	CostOfCompliance	-.233	.045	-.327	-5.151	.000
	TaxMorale	.152	.064	.221	2.375	.018
	Automation	.029	.087	.042	3.346	.000

a. Dependent Variable: VAT Compliance

$$\mathbf{Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

From table 4.23 the regression model is:

$$Y = 3.718 + 0.175X_1 - 0.233X_2 + 0.152X_3 + 0.029X_4$$

Where: Y - VAT compliance

β1 - β4 - Regression coefficient of independent variables

X_1= Taxpayer Awareness on VAT compliance

X_2 = Cost of Compliance on VAT compliance

X_3 = Tax morale on VAT compliance

X_4 = Automation on VAT compliance.

ε = error term.

The regression analysis indicated a constant of 3.718 and a unit change in tax awareness caused a 0.175 increase in VAT compliance, a unit change in cost of compliance causes a 0.233 decrease in VAT compliance, a unit change in tax morale causes a 0.152 increase in VAT compliance and finally a unit change in Automation causes a 0.029 increase in VAT compliance.

4.8 Regression Analysis with Moderation

The study sought to determine the moderating effect of automation on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. The approach that was used involves interacting each of the independent variables with the moderator and then regression against the dependent variable. Baron and Kenny (1986) stated that moderation can only be justified if path C (the interaction of pathways A and B) is statistically significant ($p<0.05$). According to the hypothesis;

> *H_{04}: Automation has no significant moderating effect on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.*

To test for moderation effect a hierarchical regression analysis was conducted; Step one investigated the impact of taxpayer awareness, compliance costs, and tax morale on value added tax compliance. The second step examined the impact of automation on VAT compliance. Step three involved introduction of the interaction term into the equation and determining its significance while controlling for independent variables and VAT compliance. The interaction term was computed as the product of standardized scores of taxpayer awareness, compliance costs, and tax morale and value added tax compliance. The procedure to determine the influence of the interaction term should be significant. The relationship was depicted in figure 4.2.

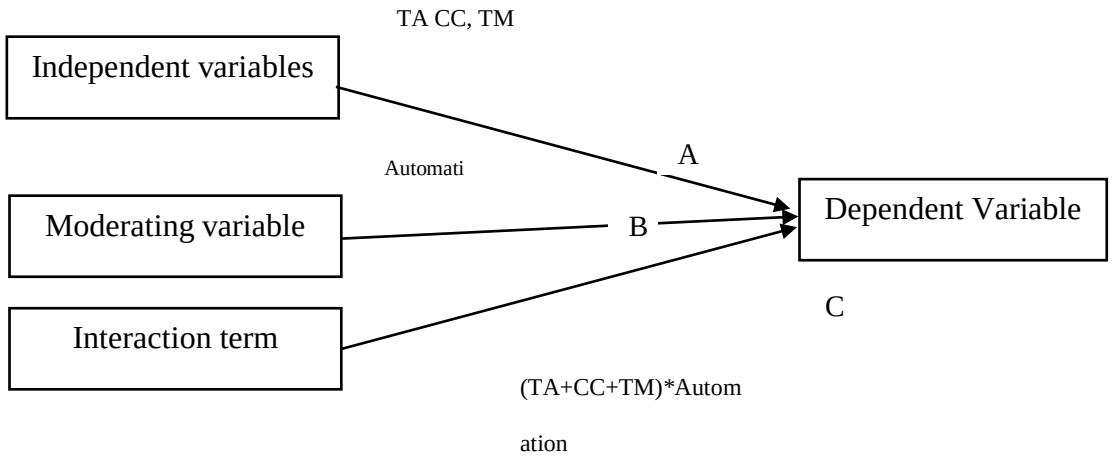

Figure 4.2: Test of moderation – Path Diagram for Direct and Indirect effects
Source: Jose (2013).

Figure 4.2 Illustrates that each row in the path represents a causal relationship between two variables to which are assigned the change statistics (R^2 and F-Ratio). This shows the direct and magnitude of the effect of one variable on the other. Using hierarchical regression analysis, both direct and indirect causalities were determined by first regressing taxpayer awareness, compliance costs, and tax morale on value added tax compliance.

4.8.1 Moderating effect of Automation on the relationship between Taxpayer Awareness, Cost of compliance, Tax Morale and VAT compliance Model summary

Table 4.33 model 3 indicated a positive correlation of R=0.828 or 82.8% between the independent variables Taxpayer awareness, Cost of compliance, taxpayer morale and automation with the VAT compliance. The independent variables caused a variation indicated by R^2 =0.686 or 68.6% on the VAT compliance meaning that the remaining 31.4% of the variation was caused by factors not captured in the current model. R square change of 0.155 or 15.5% was observed to be the measure of the interaction of Automation as a moderator variable.

Table 4.24: Moderating Effect of Automation on the relationship between Taxpayer Awareness, Cost of compliance, Tax Morale and VAT compliance model summary

Model	R	R Square	Adjusted RSquare	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.728[a]	.531	.525	.38799	.531	103.257	3	274	.000
2	.729[b]	.531	.524	.38862	.000	.120	1	273	.729
3	.828[c]	.686	.678	.31977	.155	44.406	3	270	.000

a. Predictors: (Constant), TaxMorale, CostofCompliance, TaxpayerAwareness

b. Predictors: (Constant), TaxMorale, CostofCompliance, TaxpayerAwareness, Automation

c. Predictors: (Constant), TaxMorale, CostofCompliance, TaxpayerAwareness, Automation, X_7, X_6, X_5

Source: Research Data, (2021)

Table 4.25 Moderating effect of Automation on the relationship between Taxpayer Awareness, Cost of compliance, Tax Morale and VAT compliance ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.633	3	15.544	103.257	.000[b]
	Residual	41.248	274	.151		
	Total	87.880	277			
2	Regression	46.651	4	11.663	77.224	.000[c]
	Residual	41.230	273	.151		
	Total	87.880	277			
3	Regression	60.273	7	8.610	84.208	.000[d]
	Residual	27.608	270	.102		
	Total	87.880	277			

a. Dependent Variable: VATCompliance

b. Predictors: (Constant), TaxMorale, CostofCompliance, TaxpayerAwareness

c. Predictors: (Constant), TaxMorale, CostofCompliance, TaxpayerAwareness, Automation

d. Predictors: (Constant), TaxMorale, CostofCompliance, TaxpayerAwareness, Automation, X_7, X_6, X_5

Source: Research Data, (2021)

The ANOVA captured on table 4.34 model 3 indicated a F 84.208 and a p value of 0.000 P<=0.05 indicating that the model was statistically significant.

Table 4.26: Moderating effect of Automation on the relationship between Taxpayer Awareness, Cost of compliance, Tax Morale and VAT compliance Regression Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.714	.384		9.678	.000
	TaxpayerAwareness	.194	.071	.230	2.718	.007
	CostofCompliance	-.234	.045	-.328	-5.197	.000
	TaxMorale	.164	.054	.239	3.063	.002
2	(Constant)	3.718	.385		9.668	.000
	TaxpayerAwareness	.175	.049	.207	3.510	.000
	CostofCompliance	-.233	.045	-.327	-5.151	.000
	TaxMorale	.152	.064	.221	2.375	.018
	Automation	.035	.00805	.042	4.346	.000
3	(Constant)	19.818	2.064		9.600	.000
	TaxpayerAwareness	1.661	.210	1.963	7.906	.000
	CostofCompliance	-3.394	.323	4.753	-10.512	.000
	TaxMorale	.646	.126	.938	5.141	.000
	Automation	5.100	.448	7.299	11.391	.000
	X_5	-.302	.045	-3.057	-6.646	.000
	X_6	-.785	.069	-4.036	-11.407	.000
	X_7	-.128	.033	-1.337	-3.880	.000

a. Dependent Variable: VATCompliance
Source: Research Data, (2021)

Régression equation with Automation as a moderating variable

Régression Equation with Automation as a moderating variable

$$Y = \mathbf{19.818 + 1.661}X_1 \mathbf{- 3.394}X_2 + \mathbf{0.646}X_3 + \mathbf{5.100}X_4 \mathbf{- 0.302}X_5 \mathbf{- 0.785}X_6 \mathbf{- 0.128}X_7$$

Whereby: Y = Value Added Tax Compliance

β_0 – Intercept

X_1 = Taxpayer awareness

X_2 = Cost of compliance

X_3 = Tax morale

X_4 = Automation

$X_5 = X_1X_4$= Taxpayer awareness * Automation

$X_6 = X_2X_4$ = Cost of Compliance * Automation

$X_7 = X_3X_4$ = Tax morale * Automation

The regression equation shows a constant of 19.818, a unit change in taxpayer awareness with automation as a moderating variable causes an increase of 1.661 in VAT compliance, a unit change in compliance costs with automation as a moderating variable will decrease VAT compliance by 3.394, and a unit change in tax morale with automation as a moderating variable causes an increase of 0.646 on VAT compliance. A unit change in automation caused a 5.100 increase in VAT compliance. Interaction terms X_5, X_6 and X_7 indicated p values of 0.000 each, indicating that Moderating effect was statistically significant $p=0.000<0.05$

The hierarchical regression results from the three paths were illustrated on table 4.27 which broke down the moderating effect as the regression and variation differences occurred progressively.

Table 4.27 Moderating effect of Automation on the relationship between Taxpayer Awareness, Cost of Compliance, Tax Morale and VAT compliance coefficient table with Moderation

	Model I	Model II	Model III
Constant	3.714***	3.718**	19.818***
TaxpayerAwareness	0.194	0.175	1.661***
CostofCompliance	-0.234	-0.233	-3.394***
TaxMorale	0.164	0.152	0.646***
Automation		0.035	5.100***
X_5			-0.302***
X_6			-0.785***
X_7			-0.128***
F	103.257***	77.224***	84.208***
R^2	0.531	0.540	0.686
Adjusted R^2	0.525	0.544	0.678
ΔR^2		0.009	0.155

Source: Research Data, (2021)

4.9 Test of Hypotheses

The first hypothesis Ho_1 stated that Taxpayer awareness has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. Taxpayer awareness has a positive impact on VAT compliance for small and medium-sized manufacturing companies in eastern Nairobi District. The results in Table 4.26 show that the p value is 0.000 less than 0.05, which indicates that the relationship is statistically significant, so the hypothesis is rejected.

The second hypothesis Ho_2 stated that Cost of compliance has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. Compliance costs negatively impact VAT compliance for small and medium-sized manufacturing businesses in the East Nairobi tax district. The results in Table 4.26 show that the p value is 0.000 less than 0.05, indicating that the relationship is statistically significant, so the hypothesis is rejected.

The third hypothesis Ho_3 stated that Tax morale has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. Tax morale has a positive impact on VAT compliance for small and medium-sized manufacturing companies in eastern Nairobi District. The results in table 4.26 show that the p value is 0.000 less than 0.05, which indicates that the relationship is statistically significant, so null hypothesis was rejected.

The fourth hypothesis Ho_4 stated that Automation has no significant moderating effect on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. The hypothesis is rejected since the

p value of the interaction term in Table 4.26 is 0.000 less than 0.05, suggesting that Automation has a statistically significant moderating effect on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance.

Table 4.28 Hypotheses Testing

Hypothesis	Objective	P–Value	Verdict
Ho_1 Taxpayer awareness has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	Establish the influence of taxpayer awareness on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	P=0.000< 0.05	Rejected
Ho_2: Cost of Compliance has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	Determine the influence of cost of compliance on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	P=0.000< 0.05	Rejected
Ho_3: Tax Morale has no significant influence on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	Establish the influence of Tax morale on value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	P=0.000< 0.05	Rejected
Ho_4: Automation has no significant moderating effect on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	Determine the influence of automation on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district	P=0.000< 0.05	Rejected

4.10 Discussion of the Findings

This section contains a discussion of the findings of the study's several tests. The findings of each of the study's hypotheses are discussed.

4.10.1 Effect of Taxpayer Awareness on Value Added Tax Compliance

The first objective of this study was to determine the impact of taxpayer awareness on VAT compliance among small and medium-sized manufacturing companies in eastern Nairobi District. The findings revealed that there was a statistically significant association between taxpayer knowledge and VAT compliance, with a p-value of 0.000, which is lower than the standard 0.05 probability significance level. The findings were in agreement with Puspasari *et al*. (2021) who noted that majority of SMEs assume that the government uses the wrong approach to them concerning tax. That instead of using the carrot approach, the government chases them, undermines and subjects them to unpleasant treatment. Further, the findings concur with Belkaoui (2004) whose study showed when taxpaying SMEs are aware of the tax laws and have the economic freedom to conduct their businesses, they are most likely to comply.

4.10.2 Effect of Cost of Compliance on Value Added Tax Compliance

The second objective of this study was to determine the effect of compliance costs on VAT compliance in small and medium-sized manufacturing companies in eastern Nairobi. The findings revealed a statistically significant association between compliance costs and VAT compliance, with a p-value of 0.000, which is lower than the standard 0.05 probability significance level. The findings of the study were in agreement with Pope (2016) and Maseko (2014) who established that cost of compliance tend to contribute to either non-compliance or compliance based on the size of the organization and their capabilities to seek professional tax and accounting professionals to assist them. The results also concur with Abdul & Wang'ombe (2017), whose study showed that tax compliance significantly declines with increase in tax compliance costs. The findings contradict the findings of Faridy et al. (2014)

who established that the likelihood of audits, penalties and sanctions were found to have less effect on VAT non-compliance for non-compliant taxpayers.

4.10.3 Effect of Tax Morale on Value Added Tax Compliance

The third objective of this study was to determine the effect of tax morale on VAT compliance among small and medium-sized manufacturing firms in the East Nairobi Tax District. The findings revealed that there was a statistically significant association between tax morale and VAT compliance at a p-value of 0.000, which is lower than the conventional 0.05 probability significance level. The finding is in agreement with Ahmad *et al.* (2020) who conducted a study on the determinants of tax morale: survey evidence from undergraduate students in Malaysia. The study variables included perception of tax morale among accounting and non-accounting students. The study used adapted survey questionnaire from previous literature using the data collected from the undergraduate students. The data was measured against a four-point Likert scale. The findings of the study showed that tax rate, fair tax system, government spending, corruption in government, taxpayer financial constraints and religion influence the student's perception on the level of tax morale. The findings support Alshirah, Abdul-Jabbar, and Samsudin (2019) study, which indicated that tax morale has a considerable favorable impact on sales tax compliance among Jordanian SMEs.

4.10.4 Moderator effect of Automation on Value Added Tax Compliance

The fourth objective of this study was to determine the moderating effect of automation on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. The findings revealed that automation has a statistically significant moderating influence on the connection between the predictor variables and VAT compliance at a p-value of 0.000, which is

lower than the typical 0.05 level of statistical significance. The findings concurred with Ringim, Razalli and Hasnan (2012) who found out that IT skills moderated the relationship between business process reengineering (BPR) factors such as change management, customer focus, management involvement, and the bank's overall organizational performance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a discussion on the thesis summary based on the earlier established hypothesis. It further discusses major study findings, conclusions and eventually provides directions in the form of recommendations.

5.1 Summary of Findings

The overall objective of this study was to examine the determinants of VAT compliance in small and medium-sized manufacturing firms in Nairobi East tax district, Kenya. The first objective was to determine the impact of taxpayer awareness on VAT compliance for small and medium-sized manufacturing companies in the eastern Nairobi district. Correlation analysis showed that taxpayer awareness on VAT compliance has a positive and significant relationship. In addition, regression analysis show that there is a significant positive linear relationship between taxpayer awareness of VAT compliance in the East Nairobi tax district of $p = 0.000$, <0.05. The second objective was to determine the impact of compliance costs on VAT compliance for small and medium-sized manufacturing companies in East of Nairobi tax district. Correlation analysis shows that the cost of VAT compliance is negatively and significantly related. In addition, regression analysis shows that in East of Nairobi's Tax District data, for $p = 0.000$, <0.05, there is a significant negative linear relationship between VAT compliance and costs. The third objective was to determine the impact of tax ethics on VAT compliance for small and medium-sized manufacturing companies in the East Nairobi Tax District. Correlation analysis shows that tax morale is positively and significantly related to VAT compliance in the tax district of Nairobi East. In addition, the regression analysis shows that the evidence

for the East of Nairobi tax district p = 0.000, < 0.05, there is a significant positive linear relationship between tax morale in relation to VAT compliance.

The fourth objective was to determine the moderating effect of automation on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. Regression analysis showed that there was a significant positive moderating influence of automation on the relationship between predictor variables and VAT compliance, evidence p = 0.000, <0.05.

5.2 Conclusions

Therefore, based on the above results, this study concludes that taxpayer awareness has a significant impact on VAT compliance for small and medium-sized manufacturing companies in eastern Nairobi District. The study further concludes that increasing taxpayers' awareness through taxpayer seminars, sensitization sessions, media campaigns and clearly highlighting the adverse consequences of VAT non-compliance does enhance VAT compliance to greater extent.

Compliance costs were found to play an important role in VAT compliance for small and medium-sized manufacturing firms in the East of Nairobi Tax District. Given that taxpayers are inherently predisposed to spend time and make use of professional skills to meet their VAT compliance obligations, the research concludes that having a simple and cost effective VAT compliance system automatically increases VAT compliance since such measures presents an incentive for traders to adhere to the requirements of tax body.

Noting that Tax morale was found to play an important role in VAT compliance for small and medium-sized manufacturing businesses in the East Nairobi Tax District,

the study concludes that taxpayers trust in the government greatly enhances adherence to tax requirements.

Finally, the study noted that automation has a significant moderating effect on the relationship between taxpayer awareness, cost of compliance, tax morale, and value added tax compliance among small and medium manufacturing enterprises within the East of Nairobi tax district. In this regard, the research concludes that availability of mobile phones, computers, internet connection services has been instrumental in establishing the requisite records, registering eligible taxpayers, online filing of tax returns and payment of taxes to the revenue authority.

5.3 Recommendations

Based on the findings of the study and the analyses of data collected from the respondents, VAT compliance is affected by several factors however for this study, taxpayer awareness, cost of compliance, tax morale, and automation significantly affected VAT compliance. From the theory of fiscal exchange position, taxpayer awareness is impacted by the perceived benefits that taxpayers receive from the government as an exchange for paying taxes. Even though the critics of fiscal exchange theory argue that there is no quid pro quo in taxation, the study recommends that the Government of Kenya should formulate policies targeted towards creating taxpayer awareness on how tax revenue supports provision of public goods and services. This would encourage more taxpayers to comply with their VAT obligations, hence raising compliance levels.

The outcome of the study also indicated that cost of compliance to tax laws and regulations whether administrative or technical, is negatively correlated but significantly determines compliance. Drawing from the theory of transaction cost and the reviewed literature, when cost of compliance becomes a burden or beyond

affordability, taxpayers' compliance tend to decline. Canons of taxation dictates that tax should be affordable and the cost of compliance should not be a hindrance in itself. The study therefore recommends that as much as the government depends on the revenue to implement its economic and development goals, the cost of complying with applicable tax laws and regulations should not be expensive to taxpayers as this would lead to increased non-compliance. Therefore the KRA should ensure that compliance costs to the taxpayers are at the rock bottom.

On moderating effect of automation to the relationship between predictor variables and VAT compliance, the findings of the study showed that automation is significant to VAT compliance. The goal of tax authorities is to deter any forms of non-compliance as these increase tax leakages which is not good for revenue performance. The theory of economic deterrence posits that the government actions such as penalties, fines, systems automations and other deterrence mechanisms are all aimed at improving compliance. However, automation must also be simple, uncomplicated and able to achieve the goal to which it was established with minimal efforts. For these reasons therefore, the study recommends that KRA should make deliberate efforts to ensure that VAT compliance automated tools are affordable, simple to understand and to operate so as to improve on compliance.

It is incumbent on the tax authority and the government to adopt the proposed recommendations so that the economic and development goals can be attained from the tax revenue resources.

5.4 Suggestions for Further Studies

This study focused on three independent variables: taxpayer awareness, compliance costs and tax morale. The study also used automation as a moderating variable. Further studies could be conducted to determine whether other factors, such as

enforcement measures and human factors, significantly affect VAT compliance. In addition, this study concentrated on East of Nairobi tax district only. Further research is needed in other geographical regions and tax regions to draw objective conclusions because different geographical and tax regions have different operating environments.

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APPENDICES

Appendix I: Letter of Introduction

Dear respondent,

I am a student at Kenya School of Revenue Administration conducting a study on the **determinants of value added tax (VAT) compliance among small and medium manufacturing enterprises within the East of Nairobi tax district.** This study will enlighten the business community, policy makers and the general public about the above area of study. In order to accomplish the study, I request you to complete this questionnaire.

The information obtained will be used purely for academic purposes and therefore, will be treated with utmost confidentiality and good faith. Thank you in advance for participating and making this study a success.

Yours sincerely

……..

Harrison Muthoka

KESRA105/0136/2019

Appendix II: Research Questionnaire

Instructions for Respondents

This questionnaire is divided into six parts namely Part 1, Part 2, Part 3, Part 4, 5, and Part 6. You are requested to be as honest as possible while answering the questions. You are to put a tick, circle or put an X mark in the spaces provided and as instructed where applicable.

PART 1: GENERAL INFORMATION

1. What is your gender?

   Male ☐ Female ☐ Choose not to say ☐

2. How old are you?

   18 – 28 years ☐ 29 – 39 years ☐ 40 – 49 years ☐

   50 – 59 years ☐ 60 and above ☐

3. What is your level of education?

   Primary ☐ Secondary ☐ Tertiary ☐ None ☐

4. What is your position in this business?

   Owner ☐ Partner ☐ Employee ☐ Family ☐

5. Is your business registered with government business registration services?

   Yes ☐ No ☐

6. Is your business registered for value added tax (VAT)?

   Yes ☐ No ☐

7. What was your annual sales turnover for year 2020 in Kenya shillings?

   1,000,000 – 5,000,000 ☐ 5,000,000 – 10,000,000 ☐

   10,000,000 – 15,000,000 ☐ 15,000,000 and above ☐

8. How many employees do you have if any?

1 – 10 ☐ 11 – 20 ☐ 21 and above ☐

PART 2: TAXPAYER AWARENESS AND VALUE ADDED TAX COMPLIANCE

This section aims at understanding how taxpayer awareness may determine valued added tax compliance among small and medium manufacturing enterprises. To what extend do you agree or disagree with the following statements. Kindly put a cross (X) where applicable.

Use a scale of 1-5 where; 1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.

		1	2	3	4	5
1.	I know that businesses that have or anticipate their annual turnover to be KES 5 million and above are required to register for VAT.					
2.	I know that there are goods and services which are zero (0%) rated, 8% rated and 16% rated as per the requirements of VAT legislation.					
3.	I am aware that value added tax (VAT) is computed as the difference between VAT on goods and services sold by the business and VAT on goods and services purchased from other businesses.					
4.	I am aware that value added tax (VAT) is computed, filed and tax due is paid on or before the 20th of every month succeeding the month in which sales were made.					

5.	I am aware that collecting and failing to remit VAT revenue due for the month in which it was realized amounts to tax evasion which is punishable by law.					

PART 3: COST OF VALUE ADDED TAX COMPLIANCE

This section aims at understanding cost of compliance as a factor that may determine value added tax compliance among small and medium enterprises. To what extent do you agree or disagree with the following statements. Put a cross (X) in the spaces provided. *Use a scale of 1-5 where;* ***1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.***

		1	2	3	4	5
1.	Computation, filing and payment of Value Added Tax (VAT) consumes significant time that would have been spent on business.					
2.	iTax system of filing returns, generating e-slip and making payment is complicated hence consumes business time.					
3.	Hiring tax agents and auditors is expensive, and this somehow discourages our firm from being compliant					
4.	My business hires an auditor to audit my books of accounts for the purposes of being tax compliant and to avoid tax fines and penalties.					
5.	It is costly to install, train and maintain accounting software that helps me keep records of VAT sales and VAT purchases.					

PART 4: AUTOMATION AND VALUE ADDED TAX COMPLIANCE

This section aims at understanding automation as a factor that may determine value added tax compliance among small and medium enterprises. To what extent do you agree or disagree with the following statements. Put a cross (X) in the spaces provided. *Use a scale of 1-5 where;* ***1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.***

		1	2	3	4	5
1.	My business owns and uses ETR machine to issue VAT invoices and receipts for all sales made in my businesses.					
2.	I choose when to and not to issue electronic tax register receipts and invoices depending on the prevailing circumstances.					
3.	My business initiates VAT returns filing, and payment of taxes due using the iTax system.					
4.	I know how to check and confirm my business ledger and correct any wrong entries that might have been made during data entry.					

PART 5: TAX MORALE AND VALUE ADDED TAX COMPLIANCE

This section aims at understanding tax morale elements that may determine value added tax compliance among small and medium manufacturing enterprises. To what extent do you agree or disagree with the following statements. Put a cross (X) in the spaces provided. *Use a scale of 1-5 where;* ***1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.***

		1	2	3	4	5
1.	When I pay taxes, my contribution does not count due to misappropriation of tax revenue by the government.					
2.	I believe that tax revenue is often lost due to corruption and that discourages me from being compliant.					
3.	I pay the taxes due because it is a moral obligation					
4.	I trust the government with my tax payments, and this encourages me to effectively comply with all tax requirements.					
5.	My faith often motivates me to pay all my taxes as provided for in tax laws because it is the right thing to do.					

PART 6: VALUE ADDED TAX COMPLIANCE

This section aims at understanding the extent to which value added tax compliance has been embraced by small and medium manufacturing enterprises. To what extent do you agree or disagree with the following statements. Put a cross (X) in the spaces provided. *Use a scale of 1-5 where;* ***1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.***

No.		1	2	3	4	5
1.	My business pays VAT due as per the computed differences between the Sales VAT and Purchases VAT each month as required by the law.					
2.	My business makes VAT returns for every month and has never been late as per the requirement of VAT regulations.					
3.	My business was penalized for late returns and complete failure to account for the VAT due within the last one year.					
4.	Computation, filing and payment for VAT due is complex and encourages involuntary non-compliance.					
5.	Our business pays VAT by the due date because we believe it is morally right					

THE END

Thank you for your time!

Appendix III: KESRA Permission Letter

Kenya School of Revenue Administration

KENYA REVENUE AUTHORITY

ISO 9001:2015 CERTIFIED

REF: KESRA/NBI/036

15th September 2021

TO: WHOM IT MAY CONCERN

RE: REQUEST FOR RESEARCH PERMIT

HARRISON MATIVO MUTHOKA - REG. NO.: KESRA/105 /0136/2019

This is to confirm that the above named is a student at Kenya School of Revenue Administration (KESRA) Nairobi Campus pursuing Masters in Tax and Customs Administration.

The named student is undertaking Research on TOPIC: **"DETERMINANTS OF VAT COMPLIANCE AMONG SMALL AND MEDIUM MANUFACTURING ENTERPRISES WITHIN EAST OF NAIROBI KENYA."**

The purpose of this letter is to request your good office to assist the above student with the information he requires to enable him work on his project.

Your support to KESRA in this regard will be highly appreciated.

Thank you.

Dr. Marion Nekesa, PHD,
Head Academic Research
KESRA

KENYA SCHOOL OF REVENUE ADMINISTRATION
DEAN OF STUDIES
15 SEP 2021
ACADEMIC AFFAIRS DIVISION

P. O. Box 48240 – 00100, Nairobi Email: kesratraining@kra.go.ke Tel: +254715877535/9

Tulipe Ushuru Tujitegemee!

Appendix IV: Moi University Permission Letter

MOI UNIVERSITY
MOI UNIVERSITY
ISO 9001:2015 CERTIFIED
SCHOOL OF BUSINESS AND ECONOMICS
Tel: (020) 2211206
Fax No: (020) 220247
Telex No. 33047 MOIVARSITY
P. o. Box 63056
Nairobi
KENYA

Ref: MU/EMBA/RES/14

26th October 2021

Dear Sir/Madam,

TO WHOM IT MAY CONCERN

RE: **HARRISON MATIVO MUTHOKA**
REG/NO:KESRA/0136/2019

This is to confirm that the above named is a bonafide student of Moi University registered for the MBA Programme offered in Nairobi Campus.

In partial fulfillment for the award of the MBA degree, students are expected to learn to apply theories using the latest tools and techniques and practice making real-world business decisions to help solve a wide range of problems. In this regard they are expected to carry out a **Research Project** on current issues affecting business and society.

His research topic is ***"Determinants of Value Added Tax Compliance among Small and Medium Manufacturing Enterprises within East of Nairobi Tax District, Kenya."***

This is to request you to assist him with information from your organization. All the information provided will only be used for academic purposes.

Any assistance given to him will be highly appreciated.

Yours faithfully,

27 OCT 2021

DR. ROBERT ODUNGA,
CO-ORDINATOR, MBA.

Appendix V: NACOSTI Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **201996**

Date of Issue: **21/September/2021**

RESEARCH LICENSE

This is to Certify that Mr.. HARRISON MATIVO MUTHOKA of Kenya School of Revenue Administration, has been licensed to conduct research in Nairobi on the topic: DETERMINANTS OF VALUE ADDED TAX COMPLIANCE AMONG SMALL AND MEDIUM MANUFACTURING ENTERPRISES WITHIN EAST OF NAIROBI TAX DISTRICT for the period ending : 21/September/2022.

License No: **NACOSTI/P/21/12982**

201996

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

1. The License is valid for the proposed research, location and specified period
2. The License any rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governo... commencement of the research
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Governm...
5. The License does not give authority to transfer research materials
6. NACOSTI may monitor and evaluate the licensed research project
7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one year of comple... research
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

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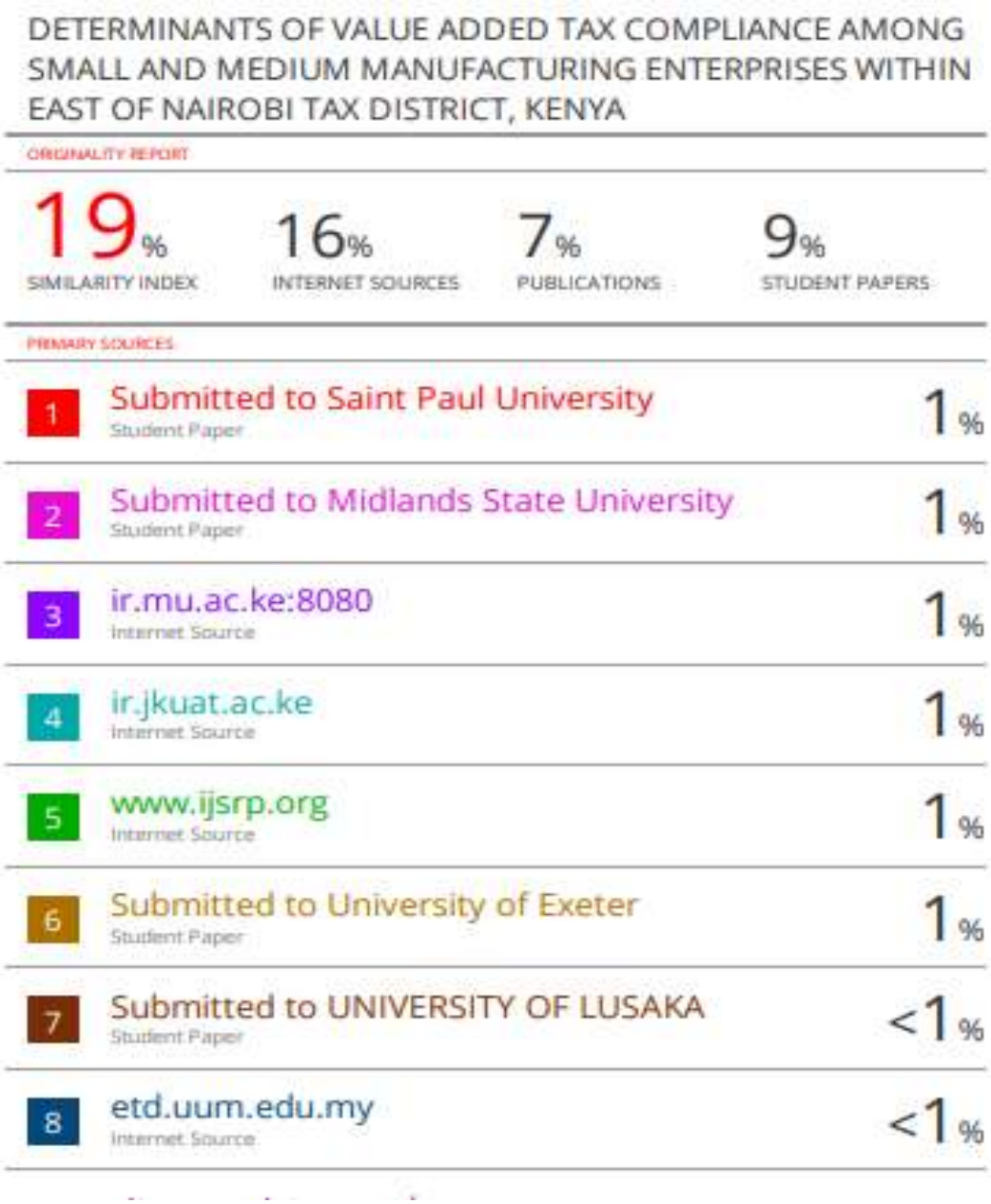
Appendix VI: Plagiarism Certificate



DETERMINANTS OF VALUE ADDED TAX COMPLIANCE AMONG SMALL AND MEDIUM MANUFACTURING ENTERPRISES WITHIN EAST OF NAIROBI TAX DISTRICT, KENYA

ORIGINALITY REPORT

19%	16%	7%	9%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

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