

**TAX REFORMS AND TAX COMPLIANCE AMONG SMALL AND MEDIUM
ENTERPRISES IN NYERI COUNTY, KENYA.**

ERIC MUCEKE MATHENGE

D53/CTY/PT /37331/2017

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS (ACCOUNTING
OPTION), KENYATTA UNIVERSITY.**

NOVEMBER, 2021

DECLARATION

This project is my own original work and has not been presented for award of any degree in any University. No part of this proposal should be reproduced without the permission of the author or Kenyatta University.

Signed: _____

ERIC MATHENGE

DATE:

D53/CTY/PT/37331/2017

This research project has been submitted for the course examination with my approval as the University supervisor.

Signed: _____

Dr. Farida Abdul,

DATE:

Department of Accounting and Finance,

School of Business,

Kenyatta University.

DEDICATION

This research is dedicated to my family for their unending love and support as I pursued my master's degree. To God for His blessings and gift of life.

ACKNOWLEDGEMENTS

I acknowledge Dr. Farida Abdul for her guidance and knowledge during the development of research project. She remained committed to ensure the study was developed according to the set standards and timelines.

TABLE OF CONTENTS

Declaration	iii
Dedication	iv
Acknowledgements	v
Table of Contents	vi
List of Tables	ix
List of Figures	x
Abbreviations and Acronyms	xi
Operational Definition of Terms	xiii
Abstract	xv
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Tax Compliance	2
1.1.2 Tax Reforms	3
1.1.3 Small and Medium Enterprises.....	6
1.2 Statement of the Problem.....	7
1.3 Objectives of the Study.....	9
1.3.1 General Objective	9
1.3.2 Specific Objectives	9
1.4 Research Hypothesis.....	10
1.5 Significance of the Study.....	10
1.6 Scope of the study.....	11
1.7 Organization of the study.....	11
CHAPTER TWO: LITERATURE REVIEW	12
2.1 Introduction.....	12
2.2 Theoretical Literature Review	12
2.2.1 Economic Deterrence Theory	12
2.2.2 Fiscal Exchange Theory	13
2.2.3 Optimal Theory of Taxation	14
2.3 Empirical Literature Review.....	15
2.3.1 Technological Tax Reforms	15
2.3.2 Administrative Tax Reforms and Tax Compliance	18
2.3.3 Policy Tax Reforms	20
2.4 Summary of Literature Review and Knowledge Gaps	21
2.5 Conceptual Framework.....	28

CHAPTER THREE: RESEARCH METHODOLOGY 29

3.1 Introduction..... 29
3.2 Research Design 29
3.3 Target Population..... 29
3.4 Sampling Design..... 30
3.5 Data Collection Instruments 31
3.5.1 Validity of the Research Instrument 31
3.5.2 Reliability of the Research Instrument 32
3.6 Data Collection Procedure 32
3.7 Operationalization of Variables 33
3.8 Data Analysis and Presentation 34
3.9 Ethical Considerations 35

**CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION
..... 36**

4.1 Introduction..... 36
4.2 General Information..... 36
4.2.1 Reliability of the Research Instrument 36
4.2.2 Response Rate..... 37
4.2.3 Profile of SMEs and Respondents 37
4.3 Descriptive statistics. 39
4.3.1 Tax Compliance..... 39
4.3.2 Administrative Tax Reforms 41
4.3.3 Technological Tax Reforms 42
4.3.4 Policy Tax Reforms 43
4.4 Inferential Statistics 44
4.4.1 Correlation Analysis 45
4.4.2 Diagnostic tests 46
4.4.3 Regression Analysis..... 48
4.5 Summary of Key Findings..... 51

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 53

5.1 Introduction..... 53
5.2 Summary of Findings 53
5.2.1 Tax Compliance of SMEs in Nyeri County..... 53
5.2.2 Tax Reforms and SMEs' Tax Compliance..... 54
5.2.3 Administrative Tax Reforms and SMEs' Tax Compliance 54
5.2.4 Technological Tax Reforms and SMEs' Tax Compliance 54
5.2.5 Policy Tax Reforms and SMEs' Tax Compliance..... 55
5.3 Conclusion of the Study..... 56

5.4 Recommendations of the Study	57
5.5 Contribution to Knowledge	58
5.6 Limitations of the Study	58
5.7 Areas for Further Study	59
References.....	60
Appendix I: Letter of Transmittal.....	66
Appendix II: Questionnaire	67
Appendix III: Secondary Data Review Guide	71
Appendix IV: Research Authorisation by Kenyatta University	72
Appendix V: Research Authorisation by NACOSTI.....	73

LIST OF TABLES

Table 2.1: Summary of Literature Review and Knowledge Gaps	26
Table 2: Target Respondents	31
Table 3.2: Operationalization of the Variables	33
Table 4.1: Chronbach's Alpha Reliability Analysis.....	36
Table 4.2: Highest Level of Education	37
Table 4.3: SME Business Segment.....	38
Table 4.4: Tax Compliance of SMEs	39
Table 4.5: SMEs Tax Registration.....	40
Table 4.6: Tax Revenue from SMEs	40
Table 4.7: Administrative Tax Reforms	41
Table 4.8: Technological Tax Reforms	42
Table 4.9: SME Adoption of Various Tax Innovations implemented by KRA	43
Table 4.10: Policy Tax Reforms	44
Table 4.11: Pearson Correlation Analysis	45
Table 4.12: Shapiro-Wilk test of Normality	46
Table 4.13: Multi Collinearity Test	47
Table 4.14: Test Glejser for Heteroscedacity	48
Table 4.15: F- Test on ANOVA	48
Table 4.16: Regression Model Summary	49
Table 4.17: Regression Model Coefficients	50

LIST OF FIGURES

Figure 2.1: Conceptual Framework	28
--	----

ABBREVIATIONS AND ACRONYMS

ADB	African Development Bank
CBK	Central Bank of Kenya
DFA	Development Finance Associates
ETR	Electronic Tax Register
EU	European Union
GDP	Gross Domestic Product
ICPAK	Institute of Certified Public Accountants of Kenya
IFC	International Finance Corporation
ITMS	Integrated Tax Management
KIPPRA	Kenya Institute of Public Policy and Research
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue
KU	Kenyatta University
NACOSTI	National Commission for Science, Technology and Innovation
OECD	Organization for Economic Cooperation and Development
PIN	Personal Identification Number
SAS	Self-assessment Systems
SMEs	Small Scale Enterprises

SPSS	Statistical Package for Social Scientists
SSA	Sub Saharan Africa
TIN	Taxpayer Identification
TOT	Turnover Tax
TMP	Tax Modernization Programme
UNECA	United Nations Economic Commission for Africa
USD	United States Dollar
VAT	Value Added Tax

OPERATIONAL DEFINITION OF TERMS

Administrative Compliance	Refers to complying with administrative rules of lodging (filing) and paying tax obligations.
Administrative Tax Reforms	these are reforms that address the ‘how to do it’ aspect of a tax system enhanced through tax payer education, technical support and decentralization of services closer to taxpayers.
Income Level	The extent to which the firm makes revenue or profit from their operations.
Policy Compliance	Represents the level to which the laid out tax laws and processes or guidelines are adhered to by taxpayers.
Tax compliance	The extent to which the tax payers observe the established tax rules by fulfilling obligations such as income declaration, filing of returns, and paying assessment due in time.
Technical Compliance	Refers to complying with technical requirements of the tax laws in calculating taxes or provisions of the tax laws in paying the share of the tax.
Tax Evasion	Constitutes failure to follow the tax commitments by way of illegal non-payment or underpayment of tax.

Tax Reforms

Involve the process of redefining the manner by which taxes are collected or managed by regimes and usually seeks to enhance tax administration or to provide economic or social benefits.

Policy Tax Reforms

These are the established legal principles, guidelines and procedures of a tax system that seek to enhance compliance through institution of tax laws, sanctions, fines and penalties and carrying out tax audits.

Technological Tax Reforms

These are improvements that take advantage of technological advancements to enhance the efficiency and effectiveness of the tax system.

ABSTRACT

Kenya has had to contend with a consistent imbalance between government revenue and expenditure resulting in large and chronic fiscal deficits. High level of non-compliance by SMEs has continued to deprive the economy the much needed revenue to fill the persistent tax gap. Through a wide range of reforms, the government of Kenya has tried to include SMEs into the tax net. However, compliance among SMEs still remains low. This study sought to determine the effect of tax reforms on tax compliance among SMEs in Nyeri County, Kenya. Specifically, the determined the effect of administrative reforms, technological reforms and policy reforms on compliance among SMEs. The study was premised on the Fiscal Exchange Theory, the Economic Deterrence Theory and the Optimal Theory of Taxation. A descriptive survey research design was adopted. The study considered a ten year period from 2009/2010 to 2018/2019 when a wide range of tax reforms had been instituted by the revenue authority with a view to address numerous compliance shortcomings. The target population was made up of 891 SMEs registered and licensed by the County Government of Nyeri. Proportionate stratified random sampling technique was applied to select a sample of 95 respondents who comprised of SME owners. The study used both primary and secondary data. A semi structured questionnaire was used to collect primary data and was administered through the drop and pick method. Secondary data was gathered from the SMEs books of accounts and records as well as data from Kenya Revenue Authority. Validity of the instrument was tested through expert opinion and pretesting. Reliability was tested using Cronbach Alpha Reliability analysis. The Cronbach's alpha coefficient stood at 0.793 which indicated a high level of internal consistency of the instrument. Data was analysed using descriptive and inferential statistics. Inferential analysis tools used included the Pearson Correlation Analysis and Multiple Regression Analysis. The regression analysis results provided evidence that all the tax reforms variables; administrative tax reforms, policy tax reforms, and technological tax reforms have a positive and statistically significant effect on tax compliance. The coefficient for administrative tax reforms ($\beta=0.901$, $p=0.017$) shows that administrative tax reforms has a statistically significant effect on tax compliance. The coefficient for policy tax reforms ($\beta=0.801$, $p=0.002$) indicated that policy tax reforms has a statistically significant effect on tax compliance. The coefficient for technological tax reforms ($\beta=0.890$, $p=0.001$) indicates that technological tax reforms has a statistically significant effect on tax compliance. The results of Pearson correlation analysis indicated that administrative tax reforms ($r=0.780$, $p=0.002$), policy tax reforms ($r=0.603$, $p=0.001$), and technological tax reforms ($r=0.704$, $p=0.011$) have a strong positive and statistically significant relationship with tax compliance. The study recommends enhanced adoption and implementation of tax reforms, and particularly the administrative tax reforms which were found to be inadequately entrenched yet had the potential to shape the tax compliance levels of SMEs. The study recommends more regular financial literacy trainings and taxpayer education forums to ensure accurate of financial reporting and timely remittance of tax dues by SMEs. Further, the Kenya Revenue Authority should increase taxpayers' support desks established to ensure SMEs are well assisted on tax matters. In addition, the study recommends the establishment of more satellite technical centres to assist SMEs in complying. Finally, the study recommends that KRA carries out more regular tax audits to ensure SMEs comply with tax requirements.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Alstads, Johannesen and Zucman (2019), poor tax compliance has remained a headache for economies around the world, and especially so among small and medium enterprises, which are key players to growth. Schneider (2019) presents tax compliance as the extent to which the tax payers observe the established tax rules by fulfilling obligations such as income declaration, filing of returns, and paying assessment due in time. On the converse, tax evasion constitutes failure to follow the tax commitments by way of illegal non-payment or underpayment of tax (Musau, 2015). Through tax evasion, a person or entity deliberately avoids paying a true tax liability. In the year 2011, tax evasion cost the global economy approximately 5.1 percent of their GDP. In Europe, Tax evasion denied the region about 8 percent of their GDP (Rile, 2011).

Rile (2011) further highlights that the cost of tax evasion in South America and North America stood at 2 percent and 10 percent respectively. In the African continent, tax evasion costs the economies dearly. Just to illustrate, South Africa with a population three times smaller than Nigeria, collects \$57 billion in tax revenues which is more than double Nigeria's collection of \$27.5 billion (Fiawoo, 2018). In Kenya, although revenue collection has been improving, tax evasion has continued to make the authority miss the tax collection targets. In the year 2018, the Kenya Revenue Authority collected Sh1.58 trillion against the National Treasury's target of Sh1.8 trillion (KRA, 2018).

According to Kenya Revenue Authority (2018), Kenya has had to contend with a consistent imbalance between government revenue and expenditure resulting in large and chronic fiscal deficits. The revenue raised through taxation has been below targets and also unable to meet

projected government expenditures. This has forced the government to seek other deficit financing options especially through foreign borrowing or additional foreign financing which have had great negative ramifications on the economy. This has continued to negatively impact on interest rates, the balance of payments and the external value of the Kenyan currency.

In the recent past, the Kenyan government through the Kenya Revenue Authority (KRA) has put all efforts to improve the efficiency and effectiveness of the tax collection system (Waithera, 2018). Nonetheless, like other developing economies, the Kenyan tax revenue structure is yet to achieve desired productivity. Almost always, the growth in revenue has been largely unsuccessful in catching up with government spending pressures. This condition has seen the government confronted with huge imbalances between the demand and supply of public budgetary resources. These countries have then had to reform their tax structures, with the general objectives of revenue adequacy, economic efficiency, equity and fairness, and simplicity (Mabugu & Simbanegavi, 2015).

1.1.1 Tax Compliance

According to Mellon (2016), tax Compliance refers to the degree to which a taxpayer observes (or fails to observe) the tax rules of his or her country. This may include, but not limited to, declaration of income, filing of tax returns, and timely payment of the tax dues. In other words, tax compliance is presented as the extent to which a taxpayer obliges to tax rules and regulations. Rather than being a voluntary payment or donation, tax is a compulsory contribution anchored upon legislation and enforced by the government. Tax payers are more prone to tax non-compliance where the systems are complex (Schneider, 2019).

Okech and Mburu (2011) advocates dividing compliance into categories in considering definitions of tax compliance. These categories are administrative compliance and technical compliance.

Administrative compliance otherwise referred to as reporting compliance or procedural compliance or regulatory compliance refers to complying with administrative rules of lodging and paying. Technical compliance refers to complying with technical requirements of the tax laws in calculating taxes or provisions of the tax laws in paying the share of the tax. Nonetheless, the Organization for Economic Cooperation and Development (OECD, 2011), adds policy compliance as the third dimension of tax compliance. Policy compliance shows the level to which the laid out tax process or guidelines are adhered to by taxpayers.

According to Maseko (2014), tax compliance is multi-faceted measure and theoretically, it can be defined by considering three distinct types of compliance such as payment compliance, filing compliance, and reporting compliance. Tax compliance is also viewed as the willingness of an individual and other taxable entities to act in accordance and within the spirit as well as the letter of tax law and administration without the application of enforcement activity (Mellon, 2016).

Kirchler and Wahl (2010) also contributes to the understanding of the concept by observing that there are three forms of compliance, which include committed compliance, creative compliance and capitulative compliance. Committed compliance is the willingness to discharge tax obligations by a taxpayer without grumbling. However, creative compliance refers to any act by a taxpayer aimed at reducing taxes by redefining income and deductible expenditure within the confines of the law. On the other hand, capitulative compliance is the observance of tax obligations albeit reluctantly (Devos, 2014).

1.1.2 Tax Reforms

Tax reforms involve the process of redefining the manner by which taxes are collected or managed by regimes and usually seeks to enhance tax administration or to provide economic or social

benefits. Tax reforms have been pursued in Kenya with a view to make sure that the tax systems is efficient and effective in achieving revenue mobilization and reducing persistent fiscal imbalances. The key tax reforms pursued in Kenya include administrative tax reforms, policy tax reforms and technological tax reforms (Mutuku, 2015). The administrative tax reforms address the implementation framework or simply the ‘how to do it’ aspect of a tax system. Among the administrative tax reforms implemented by tax authorities include development of Self-assessment Systems (SAS) which aid tax payers to remit taxes devoid of coercion from agents. To achieve this, tax payers are Personal Identification Number (PIN) or Taxpayer Identification Number (TIN) to facilitate identification and tracking of taxpayers. The tax authorities also plan and implement tax clinics and seminars to empower people with tax payer education. Other dimensions of administrative reforms include merger of various tax department such as VAT and Income tax departments to enhance organizational efficiency (Institute of Certified Public Accountants of Kenya, 2015).

Policy tax reforms entail development of general principles, guidelines and procedures of a tax system (Keen & Slemrod, 2017). Tax policy involves the choice by a government as to what taxes to levy, in what amounts, and on whom. It has both microeconomic and macroeconomic aspects. The reforms aim at providing a wholesome approach to tax issues. Tax compliance clearance as a condition for government services is just an example of policy reforms introduced by revenue authority. Other policy reforms include the Simba system that has modernized tax management at customs department to international conventional standards (KRA, 2015).

Technological tax reforms are the improvements that take advantage of technological advancements to enhance the efficiency and effectiveness of the tax system (Biørn, 2017). Among the technological reforms implemented by Kenya Revenue Authority include introduction of I-

Tax system introduced in 2011. I-tax system was developed to address the inefficiencies of the Integrated Tax Management System (ITMS) (KRA, 2015). Other notable technological improvements include the implementation of the Electronic Tax Register (ETRs) implemented from 2004 (KRA 2016).

Despite achieving independence in 1963, Kenya continued to operate under the tax system inherited from the British colonial government (KIPPRA, 2013). This happened until early 1970s when policy and administrative changes on tax were commenced. According to KIPPRA (2014), the challenge with revenue mobilization came with the energy crisis of the 1970s and ignited the demand for tax reforms to upscale mobilization of revenue. Tax reforms involves the practice of redefining the way taxes are collected or managed by the state. African Development Bank Group (2010), *An Exodus of the Tax Reforms in Kenya*

According to African Development Bank Group (2010), solid tax reforms started with the income tax act of 1973. Later, more measures would be undertaken to widening the tax base through introduction of sales tax in 1973 and capital gains tax in 1975. The capital gains tax would later be abandoned in 1984. Three decades later, it was re-introduced and became applicable from 1st Jan 2015. However, tax reforms in Kenya were elaborately introduced through the tax modernization programme (TMP) in the late 1980s.

The quest for reforms was ignited by the need for a sustainable tax system that could generate adequate revenues to meet growing public expenditure demands in addition to solve the inequalities associated with old system (Musau, 2015). The tax reforms sought to enhance tax administration, increase tax productivity and control economic distortions brought about by taxes. Besides aiding the government in meeting their expenditure projections, tax reforms in Kenya are also designed with a motive to check inequalities, facilitate redistribution of wealth for the

common good, control cyclical fluctuations, enhance price stability, boost the economy and reduce unemployment (Ngotho & Kerongo, 2014).

1.1.3 Small and Medium Enterprises

World over, Small and Medium Enterprises make up the largest proportion of business establishments in all kinds of economies. This implies that SMEs are significant players in capital accumulation and revenue enhancement in an economy. In Europe, there are approximately 23 million SMEs in the larger European Union, which account for 99 percent of all enterprises. Oricchio, Lugaresi, Crovetto, and Fontana (2017) further assert that SMEs are the backbone of the EU economy representing 60 percent of GDP (total value added) and almost 70 percent of the total workforce. In the global scene, tax compliance among SMEs remain poor. According to United Nations Economic Commission for Africa (UNECA, 2016), African countries lose more than \$50 billion annually to illegal financial outflows, most especially through tax evasion.

Regionally, as gathered from the International Finance Corporation (2019), SMEs account for upto to 90 percent of all business establishments in Sub Saharan Africa. In fact, in some African economies, SMEs constitute virtually the whole set of businesses. In Zambia, a research by Development Finance Associates (DFA, 2018), indicated that of the 66,000 formally registered businesses, 99.5 percent were SMEs. Despite their significance in growing regional economies, the compliance of SMEs with tax regulations expectations remains meagre.

In Kenya, Fjose, Grünfeld, and Green (2010) observe that the informal sector, comprising of majorly SMEs accounted for 98 percent of business in Kenya, and made a 34.3 percent contribution to GDP. The Kenya National Bureau of Statistics (2018) estimates that Kenyan SMEs have employed approximately 14.9 million people, and accounted for 81.1 per cent of employment opportunities. SMEs in Kenya are categorized into small and medium level businesses. Small

business establishments are those with between 10-49 employees while the medium enterprises have between 50 and 99 employee. Small and Large firms have below 10 and above 100 employees respectively (KNBS, 2016).

SMEs control the lion's share of the underground economy that has consistently evaded payment of tax. The government of Kenya has tried to capture the SMEs as key partakers of the underground economy into the tax net. To achieve this the government introduced the presumptive tax regime, named Turnover Tax (TOT) through the Finance Bill of 2007. Under TOT, turnover is used as the tax base; all business establishments with an annual turnover of less than Kshs.5 million are taxed at a flat rate of 3% of the annual turnover. The tax therefore targeted small businesses that are unable to keep proper records of accounts or cope with complexities of the tax regime. Nevertheless, the Turnover Tax has not effectively achieved the objective of bringing the informal sector to compliance. Upon inception, Turnover Tax performed poorly at 31% with a total of Kshs. 136 Million in 2008/2009 which was way below the target of Kshs. 442 Million. The latter years would see the TOT above average but on a declining trend.

1.2 Statement of the Problem

Despite establishment of statutory provisions such introduction of turnover tax or presumptive tax targeting the informal sector, the level of tax compliance among SMEs Kenya continue to be below projections. The performance of the turnover tax which targets SMEs has on average remained below 50% with 2,890 SMEs registered for turnover tax against a target of 6,928 between 2009 and 2010. Concerned with the poor performance of the turnover tax, the presumptive tax was introduced hoping to net 15 per cent tax on the value of business licenses that targeted an estimated 2.7 million informal traders. Nevertheless, the presumptive tax performed so poorly that the government reverted to turnover tax effective 1st Jan. 2019 to address revenue gaps. It is clear that

despite their significance to the economy, accounting for 98 percent of business in Kenya, and 34.3 percent contribution to GDP, SMEs' compliance has remained the biggest headache for tax authorities. It remains unclear whether the wide range of tax reforms introduced have helped in improving the state of compliance among SMEs.

Ondieki (2017) studied the effect of I-tax system on revenue collection in Kenya. Results indicated that revenue collection almost doubled upon implementation of the I-tax system. A positive correlation was also discovered between use of I tax and revenue collection. The study presents conceptual gaps in that there are other technological reforms at the revenue authority, other than I-tax system that could be incorporated in to research for deeper and more meaningful understanding of how technological reforms impact on revenue collection and compliance in general. Waithera (2018) studied the tax compliance challenges among small and medium enterprises in Kenya. The results highlighted complexity of tax laws, scanty tax knowledge and high compliance costs as some key challenges hindering SMEs compliance. Empirically, the study presents gaps as it failed to make an attempt to link the reforms implemented against the background of the challenges highlighted to the level of SMEs' compliance.

Kim and Kim (2018) studied tax reform and tax compliance in Tanzania and Uganda. The study used data from the two countries to establish and compare the extent to which tax compliance was influenced by the level of tax reforms. Results indicated that administrative tax reforms positively influence the level of tax compliance. Inasius (2019) considered the factors that affect the level of SMEs' tax compliance through empirical evidence from Indonesia. The study entailed data collection through a survey in Jakarta, the capital city of Indonesia. Policy tax reforms were found to have a significant positive impact on the level of tax compliance. In particular, tax audits and the perception of equity and fairness positively impacted on tax compliance.

Ondimu (2015) studied the effects of tax reforms on compliance of small and medium enterprises in Kenya; a case of Kisumu town. The study sought to determine the effect of administrative tax reforms and turnover tax reforms on compliance of SMEs. Results established that turnover tax reforms and administrative tax reforms had a positive impact on compliance. Technological as well as tax policy reforms were not captured despite the importance laid on them by policy makers. Thus, to address the aforementioned gaps and enrich knowledge on the subject matter, the current study focused on tax reforms and their effect on compliance among SMEs in Nyeri County, Kenya.

1.3 Objectives of the Study

The study pursued the following objectives. The objectives were classified into the general and specific objectives.

1.3.1 General Objective

The general objective of the study was to establish the effect tax reforms on tax compliance among SMEs in Nyeri County, Kenya.

1.3.2 Specific Objectives

The study was guided by the following specific objectives.

- i) To determine the effect of administrative tax reforms on tax compliance among SMEs in Nyeri County, Kenya.
- ii) To establish the effect of tax policy reforms on tax compliance among SMEs in Nyeri County, Kenya.
- iii) To assess the effect of technological tax reforms on tax compliance among SMEs in Nyeri County, Kenya.

1.4 Research Hypothesis

The study sought to test the following null hypothesis.

H₀₁: There is no statistically significant effect of administrative tax reforms on tax compliance among SMEs in Nyeri County, Kenya.

H₀₂: There is no statistically significant effect of tax policy reforms on tax compliance among SMEs in Nyeri County, Kenya.

H₀₃: There is no statistically significant effect of technological tax reforms on tax compliance among SMEs in Nyeri County, Kenya.

1.5 Significance of the Study

The study will be helpful to policy makers and tax enforcers and especially to the Kenya Revenue Authority. The revenue collection body will get insights on how better to manage the tax system to enhance compliance among SMEs. The National Treasury will also benefit with recommendations on how to better target SMEs' compliance as a way to help close the tax gap that continues to persist. The government will also be able to evaluate if the taxation standards set are effective and efficient in revenue collection. The government will also be advised on plans to ensure the policies set are proficient to ensure that SMEs are competitive both locally and globally. The study will also add value to both existing and potential investors. The existing investors will be able to acquire knowledge of tax reforms implemented. The investors will be able to make financial decisions based on the existing tax system. Scholars and academicians will be in a position to understand existing gaps and how they can be addressed in future research. The study also enhances existing knowledge on tax reforms and compliance which might be insightful to the scholarly class.

1.6 Scope of the study

On content scope, the study addressed; tax reforms and tax compliance among SMEs in Nyeri County, Kenya. Specifically, the study addressed three objectives. These are; to determine the effect of administrative tax reforms, tax policy reforms and technological tax reforms on tax compliance among SMEs in Nyeri County, Kenya. Regarding the context scope, the study was confined to SMEs in Nyeri County, Kenya. The choice of Nyeri county was due to the fact that the county has been listed by Kenya National Bureau of statistics (2018) as among the ones registering highest growth of SMEs in Kenya. Finally, with regard to time scope, the study considered a ten year span from 2010 to 2019 financial year. This period was appropriate as a wide range of reforms had been pursued during this time. It was imperative to understand what bearing the reforms had on the level of compliance among the SMEs.

1.7 Organization of the study

The research project is presented in five chapters. Chapter one covers the background of the study which gives an overview of the research's subject matter and prompting issues. The chapter also highlights the statement of the problem and objectives of the study. Chapter two covers both theoretical and empirical review. While theoretical review present relevant theories on the subject at hand, the empirical review presents a review of past studies and identifies the gaps that needed to be filled. Chapter three presents the research methodology adopted in the actual field of the study. The chapter covers the research design, target population, sampling, data collection instruments and procedure, validity and reliability, analysis and presentation of data. Chapter four presents the actual research findings and interpretations. Chapter five then summarizes the findings, makes a conclusion and gives policy recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter highlights a review of relevant literature concerning the subject of tax reforms and tax compliance. The review is classified into theoretical and empirical review. The theoretical review takes note of key theories informing the study. The empirical review highlights contents of past studies on the subject matter and seeks to establish what has been done and what remains to be done.

2.2 Theoretical Literature Review

The study was guided by three key theories that have attempted to explain tax compliance in light of tax reforms. These are economic deterrence theory, fiscal exchange theory and the optimal theory of taxation.

2.2.1 Economic Deterrence Theory

Founded by Becker (1968), the economic deterrence theory asserts that the behaviors of taxpayers in regard to tax compliance or noncompliance is influenced by policy factors such as the tax rate determining the benefits of evasion, and the probability of detection and penalties for fraud which determine the costs. The implication is that if detection is highly probable and punishments or consequences are severe, there will be few tax evaders. The deterrence theory has its foundation on dealing with the challenges of tax compliance. According to Ortega and Sanguinetti (2013), the theory seeks to explain an enforcement mechanism which would best appeal to the tax payer's tax morality.

The theorists assert that the mind-set of tax payers while evading tax is the concept of maximizing the expected usefulness of the tax evasion gamble. Alm and El-Ganainy (2013) states that the deterrence theory is founded on weighting the benefits of successfully evading tax in comparison with the risk of sanctions if caught. When a taxpayer is involved in tax evasion, they wilfully and consciously apply unlawful methods to avoid complying with tax laws. They may do so by failing to report income earned or fabricating tax deductions or fraudulently employing other illegal means to reduce or extinguish the tax liability (Alstadsæter, Johannesen, & Zucman, 2018).

According to Pratt, Cullen, Blevins, Daigle and Madensen (2006), the deterrence theories generally predict compliance patterns based solely on the ability to pay approach. The government revenue and expenditures are treated separately and taxes are based on taxpayer's ability to pay. Deterrence can be achieved through a number of approaches which could be punitive or persuasive. The theorists presents a case for tax reforms as way of enhancing compliance. To yield high compliance, the reforms must be seen by tax payers to be enhancing the equity and fairness of the taxation system (Knoll, Riedel, Shamsfakhr, & Strohmaier, 2017). It should as well reduce and control the costs of compliance while increasing the cost associated with noncompliance. The deterrence theory therefore supports a case for technological, administrative and policy reforms as a way of improving the state of tax compliance.

2.2.2 Fiscal Exchange Theory

The fiscal exchange theory is associated with Alm, Jackson and McKee (1993) and suggests that voluntary tax compliance is affected by policy measures that dictate state expenditures and the manner in which the expenditure decisions are made. Bello and Danjuma (2014) state that the presence of government expenditures may motivate compliance and that governments can increase compliance by providing goods that citizens demand in a more efficient and accessible manner.

As viewed by McKerchar and Evans (2009), the fiscal exchange theory has evolved from the economic deterrence and the social psychology models and has its foundation upon the existence of a social, relational or psychological contract between the government and the taxpayers. The theorists assert that the primary determinant of tax compliance is the presence of government expenditures which principally serve as a motivating factors for taxpayer compliance. Thus, taxpayers will regularly evaluate what they get directly in return for their tax payments in the form of public services (quid pro quo). As such, taxation and the provision of public goods and services involves a contractual relationship between taxpayers and the government.

Bodea and LeBas (2013) therefore assets that the existence of positive benefits may increase the probability that taxpayers will comply voluntarily without direct coercion. Notwithstanding the fact that most taxpayers may not be in a position to accurately assess the exact value the benefits they get as a result of payment of taxes, the do have general impressions and attitudes concerning their own and others' terms of trade with the government (Hansen, 2018). As such, if taxpayers perceive that a tax system is unjust, then their levels of compliance will negatively affected. The fiscal exchange theory was instrumental to the current analysis as it suggests that it is the policy aspect of reforms that are likely to influence the compliance levels among taxpayers.

2.2.3 Optimal Theory of Taxation

The theory of optimal taxation was first associated with Ramsey (1927) and Mirrlees (1976), although it has been developed further by Mankiw, Weinzierl, and Yagan (2009) as the study of planning and implementing a tax system that maximizes a social welfare function subject to underlying economic constraints. The social welfare function applied is that of individuals' utilities. Thus the tax system is chosen to maximize the sum of individual utilities. Tax revenue is

required to fund the provision of public goods and other government services, as well as for redistribution from rich to poor individuals (Saez & Stantcheva, 2018).

However, Goldin (2015) observes that most taxes distort individual behavior, because the activity that was being taxed becomes relatively less desirable. The optimization problem involves minimizing these distortions away from the efficient state, caused by taxation, while achieving desired levels of redistribution and provision of public services (Tuomala, 2016). The theorists assert that a prudent taxation system is proportionate to incomes or abilities to pay. It should also be certain rather than arbitrary and should be payable at times and in ways convenient to the taxpayers. Finally, the taxation system should be cheap to administer and collect (Heathcote & Tsujiyama, 2015). Thus, the theorists suggest that technological reforms, policy reforms and administrative reforms are all necessary in order to achieve the desired criteria of a prudent taxation system.

2.3 Empirical Literature Review

The study reviewed past studies on the subject matter; tax reforms and tax compliance. The contents of past studies are outlined with a view to understand the knowledge gaps that required to be addressed.

2.3.1 Technological Tax Reforms

Ondieki (2017) studied the effect of I-tax system on revenue collection in Kenya. Results indicated that revenue collection almost doubled upon implementation of the I-tax system. The study was comparative in nature and comprised of two time classifications; period before i-tax and period after i-tax. A descriptive survey research approach was used while secondary data was used for study purposes. A positive correlation was also discovered between use of I tax and revenue collection. The study presented conceptual gaps in that there are other technological reforms at the

revenue authority, other than I-tax system that could be incorporated in to research for deeper and more meaningful understanding of how technological reforms impact on revenue collection and compliance in general.

Musa and Ibrahim (2016) studied Administrative and technological tax reforms and small corporate tax compliance behavior In Nigeria. On administrative reforms study dwells on tax structure variables namely tax rate, tax audit and penalties and how they influenced the level of compliance among small companies. On technological reforms, the study assess the indirect effects of tax compliance costs on the small corporate tax compliance behavior. Results show that both administrative and technological tax reforms have a positive effect on small corporate tax compliance. In context, gaps are clear on need to have the study done locally.

The study by Livoi (2017) was interested with determination of the effect of tax reforms on corporate tax compliance to Kenya Revenue Authority. The study assessed the effect of technological tax reforms, policy tax reforms and administrative tax reforms on compliance among corporates at Kenya Revenue Authority. A descriptive survey research design was applied. The study carried out a census of staff working at the domestic tax department of Kenya Revenue Authority. Data analysis relied on both descriptive and inferential statistics. The results indicated a very weak inverse relationship between technological tax reforms and corporate tax compliance at KRA. Regression analysis results further confirmed that technological tax reforms impacted negatively on compliance levels among corporates.

Kanyinga, (2016) examined the effect of tax reforms on compliance with Turnover Tax among Small and Medium Enterprises in Industrial Area, Nairobi. The study employed a descriptive survey research design and relied on a target population of 1240 SMEs registered by KRA. The analysis was done by application of the logistic regression analysis. The study established that the level of

noncompliance by SMEs was at 40 percent. It was further indicated that more than three quarters of SMEs used the online platform to file their tax returns online. Results further indicated that there exists a strong positive relationship between technological tax reforms and tax compliance. Conceptually, gaps emerge on need to consider other dimensions of technological tax reforms besides online filing of tax.

Kiring'a et al. (2017) studied the impact of online tax filing on tax compliance among small and medium enterprises (MSE) in Kibwezi Sub-County in Kenya. The study assessed the impact of online tax filing on tax compliance among Medium Scale Enterprises in Kibwezi Sub County, Kenya. A descriptive survey research design was applied on a target population of 1,800 MSEs. Results indicated that online tax filing positively influences tax compliance among Medium Scale Enterprises. Conceptual gaps emerge as the study considered only a narrow perspective of technological reforms at the revenue authority. It is imperative to consider other aspects of technological reforms besides online tax filling.

Ngigi (2015) studied Integrated Tax Management System and Tax Compliance by SMEs in the Central Business District, Nairobi County. A descriptive survey research design was used to study a sample of one hundred and seventy three SMEs. Inferential statistics were used in the analysis. In particular, the multiple linear regression was applied in order to effectively explain the effect of Integrated Tax Management System on Tax Compliance. Results demonstrated that the integrated tax management system influences tax compliance by SMEs. In concept, the study represents gaps on need to broaden the assessment to cover more parameters under technological reforms besides the Integrated Tax Management System.

2.3.2 Administrative Tax Reforms and Tax Compliance

Livoi (2017) analyzed tax Reforms and corporate tax compliance to Kenya Revenue Authority. Specifically, the study sought to determine the effect of policy reforms, administrative reforms and technological tax reforms on corporate tax compliance at Kenya revenue authority. The study adopted a census approach targeting all the staff at KRA's domestic taxes department based at the head office in Nairobi. Analysis of data was done through descriptive as well as inferential analysis. It was established that tax reforms instituted by KRA were yet to yield the intended benefits with regard to raising levels of compliance among corporates. In general, the Pearson correlation analysis results indicated that tax reforms have an inverse effect on corporate tax compliance. Nonetheless, administrative tax reforms yielded a moderate and positive association with compliance. The regression analysis output however indicated that administrative tax reforms yielded a negative effect on compliance. Empirically, gaps are established as past studies such as Ondimu (2015) had established compliance enhancement effects of administrative tax reforms.

Lisa and Hermanto (2018) studied the effect of administrative and policy tax reforms in Indonesia. Policy reforms addressed tax amnesty while administrative reforms was confined to taxpayer awareness. The study used the Structural Equation Modeling (SEM) in the analysis. Findings revealed that policy tax reforms (Tax Amnesties) has a positive effect on compliance. In addition, administrative tax reforms (enhanced taxpayer awareness) also showed a positive effect on compliance level. If the taxpayer has the willingness to pay tax, compliance in paying taxes will be high.

Kim and Kim (2018) studied tax reform and tax compliance in Tanzania and Uganda. The study used data from the two countries to establish and compare the extent to which tax compliance was influenced by the level of tax reforms. Compliance was represented by quasi voluntary compliance

and general level of tax performance. Despite introducing the same tax administration reforms, the study notes that Tanzania achieved better outcomes in terms of tax performance and quasi voluntary compliance. Nonetheless, it is noted that in both cases, administrative tax reforms positively influence the level of tax compliance.

Waithera (2018) studied the tax compliance challenges among small and medium enterprises in Kenya. The study used a desk study approach that involved review of already existing studies on the subject matter. The results highlighted complexity of tax laws, scanty tax knowledge and high compliance costs as some key challenges hindering SMEs compliance. Empirically, the study presents gaps as it failed to make an attempt to link the reforms implemented against the background of the challenges highlighted to the level of SMEs' compliance.

Ondimu (2015) studied the effects of tax reforms on compliance of small and medium enterprises in Kenya; a case of Kisumu town. The study sought to determine the effect of administrative tax reforms and turnover tax reforms on compliance of SMEs. A combination of both descriptive and explanatory research designs was employed while analysis relied on both descriptive and inferential analysis. Results established that administrative tax reforms had a positive impact on compliance. Empirically, gaps arise as the study failed to capture an expanded dimension of reforms for assessment. Technological and tax policy reforms were not captured despite the importance laid on them by policy makers.

Musa and Ibrahim (2016) studied Administrative and technological tax reforms and small corporate tax compliance behavior In Nigeria. On administrative reforms study dwells on tax structure variables namely tax rate, tax audit and penalties and how they influenced the level of compliance among small companies. On technological reforms, the study assess the indirect effects of tax compliance costs on the small corporate tax compliance behavior. Results show that

both administrative and technological tax reforms have a positive effect on small corporate tax compliance. In context, gaps are clear on need to have the study done locally.

2.3.3 Policy Tax Reforms

Kariba (2011) studied policy tax reforms and tax compliance in Kenya. A descriptive survey research design was employed. The study was comparative in approach and considered tax collection data from Kenya revenue authority for the period before and after policy reforms. In particular, the study sampled 10 years, 5 years before institution of the policy reforms and 5 years after institutions of the policy reforms. Secondary data was used and was obtained from published statistics from Kenya Revenue Authority. The findings indicated that the policy tax reforms had positively influenced tax compliance and tax revenues at Kenya Revenue Authority. Conceptually, gaps emerge in that the study considered only the policy dimension of reforms and left out administrative and technical aspects of reforms.

Inasius (2019) considered the factors that affect the level of SMEs' tax compliance through empirical evidence from Indonesia. The study entailed data collection through a survey in Jakarta, the capital city of Indonesia. A total of 328 small business taxpayers were sampled as respondents. The study relied on a self-administrated questionnaire method of data collection. Policy tax reforms were found to have a significant positive impact on the level of tax compliance. In particular, tax audits and the perception of equity and fairness positively impacted on tax compliance

The Livoi (2017) study dwelt on tax reforms and their effect on corporate tax compliance to Kenya Revenue Authority. Policy tax reforms was among the reforms assessed along with administrative reforms and technological tax reforms. The study used a descriptive survey research design and a census approach in conducting the study. Analysis was done using both descriptive and inferential

statistics. The study, through the Pearson correlation analysis established that policy tax reforms were strongly negatively related with corporate tax compliance at KRA. Regression analysis results confirmed existence of a negative effect of policy tax reforms on compliance.

Lisa and Hermanto (2018) studied the effect of administrative and policy tax reforms in Indonesia. Policy reforms addressed tax amnesty while administrative reforms was confined to taxpayer awareness. The study used the Structural Equation Modeling (SEM) in the analysis. Findings revealed that policy tax reforms (Tax Amnesties) has a positive effect on compliance. In addition, administrative tax reforms (enhanced taxpayer awareness) also showed a positive effect on compliance level. If the taxpayer has the willingness to pay tax, compliance in paying taxes will be high.

Kanyi (2015) assessed policy tax reforms and tax revenue as an indicator of compliance in Kenya. The study compared and contrasted the strengths and weakness of the tax system through its evolution over a ten period span from 2003/2004 to 2012/2013. The study adopted a correlational research design to determine the relationships between policy tax reforms and revenue growth which is an indicator of compliance. Results demonstrated that policy tax reforms positively influence the level of compliance and total tax revenue at Kenya revenue authority. Conceptually, gaps emerge on need to cover more aspects of policy tax reforms such as organizational policy reforms. Contextually, gaps also emerge on need for updated studies as considerable time has elapsed since the study was carried out.

2.4 Summary of Literature Review and Knowledge Gaps

The review of literature addressed the subject; tax reforms and compliance. The subject has attracted attention from past theorists and researchers. Nevertheless, a wide range of issues remained unresolved or unaddressed. There are knowledge gaps that have not been adequately

filled. The gaps are either contextual, conceptual, or empirical in nature. Empirical gaps are established study results have directly conflicted earlier propositions or findings. For instance Livoi (2017) established that administrative tax reforms yield a negative effect on compliance contradicting Ondimu (2015) who found that administrative tax reforms positively influence compliance. Other dimensions of empirical gaps are established as some studies described the state of reforms or compliance without attempting to demonstrate the relationships between the two variables (Waithera , 2018).

Conceptual gaps emerge on need to consider an all-inclusive model of tax reforms for assessment, away from a narrow oriented assessment (Ondimu, 2015, Kariba, 2011). Conceptual gaps also concern the need to expand the conceptual representation of each reform component or variable to cover more aspects (Ondieki, 2017, Kanyinga, (2016, Kiring'a et al., 2017). Contextually, gaps also emerge on need for updated studies as considerable time has elapsed since some studies were carried out, challenging their applicability in the current environment (Kanyi, 2015, Ondimu, 2015, Ngigi, 2015, Kariba, 2011). The gaps are further summarized in Table 2.1 which further provides the framework to be used in filling the gaps highlighted.

Author	Subject of Study	Study Findings	Knowledge Gaps	How to Address the Gaps
Livoi (2017)	Tax Reforms and corporate tax compliance to Kenya Revenue Authority.	The regression analysis output indicated that administrative tax reforms yielded a negative effect on compliance.	Gaps are established as results conflict with past studies such as Ondimu (2015) who had established compliance enhancement effects of administrative tax reforms.	Gaps filled by a through comparison of current results against theoretical and empirical foundations to reach justifiable conclusions.
Waithera (2018)	Tax compliance challenges among small and medium enterprises in Kenya.	Results highlighted complexity of tax laws, scanty tax knowledge and high compliance costs as some key challenges hindering SMEs compliance.	Gaps emerge as the study failed to make an attempt to link the reforms implemented against the background of the challenges highlighted to the level of SMEs' compliance.	The study filled the gaps by expanding the assessment to cover the effect of tax reforms on tax compliance.

Ondimu (2015)	The effects of tax reforms on compliance of small and medium enterprises in Kenya.	Results established that administrative tax reforms had a positive impact on compliance.	Gaps arise as the study omitted policy and technological tax reforms from the assessment.	The study considered as well, technological and tax policy reforms which were not captured despite the importance laid on them by policy makers.
Kariba (2011)	Policy tax reforms and tax compliance in Kenya.	The findings indicated that the policy tax reforms had positively influenced tax compliance and tax revenues at Kenya Revenue Authority.	Conceptually, gaps emerge in that the study considered only the policy dimension of reforms and left out administrative and technical aspects of reforms.	The study considered all the facet of reforms at the Kenya Revenue Authority including technological and administrative reforms.
Kanyi (2015)	Policy tax reforms and tax revenue as an indicator of	Results demonstrated that policy tax reforms positively influence the level of compliance and total	Contextually, gaps also emerge on need for updated studies as considerable time	The current study expanded the scope to cover more years and consider recent period as well.

	compliance in Kenya.	tax revenue at Kenya revenue authority.	has elapsed since the study was carried out.	
Ondieki (2017)	The effect of I-tax system on revenue collection in Kenya.	Results indicated that revenue collection almost doubled upon implementation of the I-tax system.	The study presents conceptual gaps in that there are other technological reforms at the revenue authority, other than I-tax system that could be incorporated in to research.	The current study addressed other dimensions of technological reforms besides I-tax.
Kanyinga, (2016)	Effect of tax reforms on compliance with Turnover Tax among SMEs in Industrial Area, Nairobi.	Results further indicated that there exists a strong positive relationship between technological tax reforms and tax compliance.	Conceptually, gaps emerge on need to consider other dimensions of technological tax reforms besides online filing of tax.	Other aspects of technological reforms were also considered.

Kiring'a et al. (2017)	The impact of online tax filing on tax compliance among small and medium enterprises (MSE) in Kibwezi Sub-County in Kenya.	Results indicated that online tax filing positively influences tax compliance among Medium Scale Enterprises.	Conceptual gaps emerge as the study considered only a narrow perspective of technological reforms at the revenue authority.	The current study considered other part of technological reforms besides online tax filling.
Ngigi (2015)	Integrated Tax Management System and Tax Compliance by SMEs in the Central Business District, Nairobi County.	Results demonstrated that the integrated tax management system influences tax compliance by SMEs.	In concept, the study represents gaps on need to broaden the assessment to cover more parameters under technological reforms besides ITMS.	The study considered other technological reforms as well at the revenue authority and how they have impacted on compliance.

Table 2.1: Summary of Literature Review and Knowledge Gaps

2.5 Conceptual Framework

The conceptual framework shows hypothetical connections between the variables used in the current analysis. The variables are broadly classified into the independent and dependent variables. The independent variables are tax reforms as effected by Kenya Revenue Authority. These include Technological Reforms, Policy Reforms and Administrative Reforms. The dependent variable is tax compliance as indicated by tax registration, tax filing, accuracy of reporting, and tax payment.

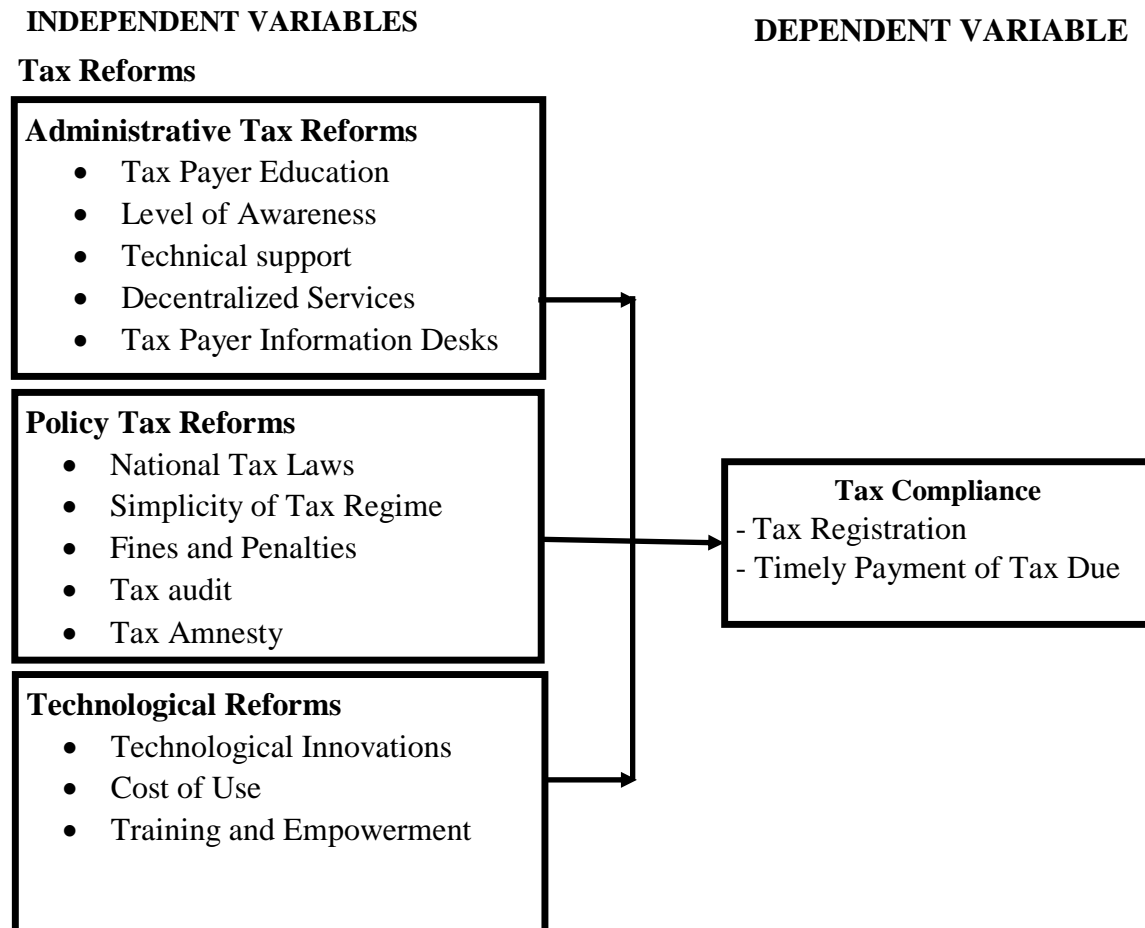


Figure 2.1: Conceptual Framework

Source: *Researcher (2019)*

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter covers the methodological framework used for carrying out the actual field study. It outlines the methods, processes, procedures and activities that were followed. The chapter gives a highlight of how the research objectives were fulfilled. Among the areas outlined are the research design, target population, sampling design, data collection instruments and procedure, data analysis and presentation and ethical considerations.

3.2 Research Design

A descriptive survey research design was adopted in the study. Jackson (2015) posits that a descriptive survey research explains the what, where, how and when of a given phenomenon. It aims at establishing the existing conditions regarding certain factors of interest to a research undertaking and report them as they are. A descriptive survey research design allows the researcher to go further to discover and report already existing associations between variables without having to alter anything in that environment (Mugenda & Mugenda (2003). The justification for adoption of this design was fact that the current study sought to determine conditions as they were and explain relations as they existed regarding tax reforms and tax compliance among SMEs in Nyeri County, Kenya.

3.3 Target Population

Creswell and Creswell (2017) describe target population as the complete set of elements or objects that have the same recognizable characteristics. A target population consists of the whole group or units which the study is planning to research on. The target population comprised of 891 SMEs spread across different industries in Nyeri County, Kenya as licensed by the County Government

of Nyeri as at June 2019. The target respondents were the owners or managers of the SMEs, identified purposively or through judgmental sampling.

3.4 Sampling Design

Sampling design entails the technique applied by a researcher to draw a sample from the target population (Bell, Bryman, & Harley, 2018). The study applied the formula developed by Trek (2015) to determine a statistically representative sample from a known population. The formula is presented as; $n = \frac{N}{1+N(e)^2}$

Where: n- Sample Size

N-Population Size

e- Level of Precision at 90 percent Confidence level. Using the formula, the sample size was determined as follows; $n = \frac{891}{1+841(0.1)^2} = 94.69$. The sample therefore consisted of 95 SMEs. Proportionate stratified random sampling technique was applied to select a sample from the target population. According to Kothari (2011), the technique involved dividing the target population into small groups called strata to ensure that the sample obtained is representative. The following formula was applied by the study to obtain sample $S = (N_h/N) * n$

S=Sample size

N_h =Population size for stratum

N-Target population

n=Total Sample size.

Table 3.1: Target Respondents

No	SME segment	Target Population(N)	$nh=(Nh/N)Xn$	Sample size (for SMEs)
1	Manufacturing and Textiles	85	9.06	9
3	Health	97	10.34	10
2	Retail	84	8.96	9
4	Transport	91	9.70	10
6	Construction and Mining	17	1.81	2
5	Hospitality and Tourism	90	9.59	10
7	Financial Services	63	6.71	7
9	Marketing	85	9.06	9
8	Agriculture	89	9.48	9
11	Telecommunication and ICT	80	8.53	9
10	Energy	68	7.25	7
12	Education	42	4.48	4
	Total	891	94.98	= 95

Source: *Nyeri County Government (2018)*

3.5 Data Collection Instruments

A data collection instrument is the tool used by a researcher to collect raw data from the field (Mugenda & Mugenda, 2003). The study used a semi structured questionnaire containing both closed and open ended questions. Questionnaires are preferred as they have the ability to arrange responses in a standardized manner and deliver more objective responses (Mugenda & Mugenda, 2003). Tests were carried out to assess and improve the validity status of the research instruments.

3.5.1 Validity of the Research Instrument

Kothari (2011) states that validity is an indication that the data collection instrument measures exactly what it is supposed to measure. The researcher determined both construct and content validity status of the research instrument. Expert opinion and pretesting methods were applied for this end. The study sought expert opinion from the supervisor and other lecturers in the school of

business of Kenyatta University. Improvements were effected on the instrument on account of their advice. The pre testing targeted 5 SMEs in Nyeri County, Kenya which were selected randomly.

3.5.2 Reliability of the Research Instrument

According to Mugenda and Mugenda (2003), reliability concerns the consistency and repeatability of measurements acquired by administering the research instrument. Kothari (2011) holds that measurements are considered solid, if the instrument that collects them can provide comparable results upon repeated administration. The study applied the Cronbach's Alpha Reliability Analysis to effectively assess the internal consistency reliability status of the instrument. According to Gliem and Gliem (2003), an Alpha reliability coefficient of more than 0.70 would be taken as ideal and would reflect acceptable level of internal consistency.

3.6 Data Collection Procedure

The Drop and pick method was applied in the study to deliver the questionnaire to the respondents. The method involves personally submission of the instrument to the respondents in person and then collecting the instrument back at a later date. According to Mugenda and Mugenda (2012), the method eliminates the problem of non-response owing to various study limitations. The researcher explained the importance of the research and give an assurance that any information disclosed will serve purely academic ends. Secondary data was collected from published and other documented reports available with the Kenya Revenue Authority which is the entity mandated to manage the national tax system. Secondary data was purely for tax compliance, which was the dependent variable.

3.7 Operationalization of Variables

Table 2.2 lists the study variables which include the dependent and independent variables. The operationalization captures the operational representation and the measurements used to estimate the variables. The measures included are the ones that have been validated by past researchers and theorists.

Table 2.2: Operationalization of the Variables

Type of Variable	Variable	Indicator	Measure	Measurement Scale
Dependent	Tax Compliance	Tax Registration	Proportion of SMEs Registered For Tax.	Ratio/Interval
		Timely Payment of Tax Due	Tax Revenue from SMEs	
Independent	Administrative Tax Reforms	Tax Payer Education	Sensitization by tax authority/ stakeholders	Ordinal
		Level of Awareness	Extent to which SME owners understand tax issues.	
		Technical support	The extent to which KRA officers offered support on technical tax issues.	
		Decentralized Services	Proximity of tax collection sites to SMEs	
		Tax Payer Information Desks	Extent to which information desks are availed by authorities.	
Independent	Policy Tax Reforms	National Tax Laws	Extent to which new tax laws affected SMEs	Ordinal
		Simplicity of Tax Regime	Ease of comprehension and conformity to tax laws.	
		Fines and Penalties	Extent to which sanctions affected non complying SMEs.	
		Tax audit	Probability of tax audits being carried out.	

Independent	Technological Tax Reforms	<ul style="list-style-type: none"> • Technological Innovations 	Extent to which new technology was adopted.	Ordinal
		<ul style="list-style-type: none"> • Cost of Use 	Cost of using the technological based platforms to comply.	
		<ul style="list-style-type: none"> • Training and Empowerment 	SMEs understanding of how to use the tax technology.	

Source: Researcher (2019)

3.8 Data Analysis and Presentation

Data analysis was done using descriptive and inferential analysis. Means and standard deviations were the key descriptive statistics. On the other hand, the multiple regression analysis and Pearson correlation analysis made up the inferential analysis methods. The inferential statistics were considered paramount in fulfilling the study objectives by demonstrating objectively, the effect and relationship between the independent variable (tax reforms) and the dependent variable (tax compliance). Mugenda and Mugenda (2003) outlines that descriptive statistics, on their own, may not effectively aid in explaining links and effects among variables. As such, for justifiable inferences to be made, it is paramount that inferential statistics be incorporated. The regression models will be presented as follows:

General Model

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

Where; **Y= Tax Compliance**

β_0 = Intercept

X_1 = Administrative Tax Reforms

X_2 = Technological Tax Reforms

X_3 = Policy Tax Reforms

β_1 - β_4 = Regression Coefficients

ε = error term.

3.9 Ethical Considerations

As held by Collis and Hussey (2009), ethics are essentially the standards for conduct which differentiate between right and wrong. In the context of empirical research, ethical practices may concern dimension on voluntary participation, informed consent and confidentiality of participants (Kothari, 2011). The study sought clearance and authority to conduct research from Kenyatta University and National Commission for Science, Technology and Innovation (NACOSTI). This helped assure the respondents regarding the purpose of the study. The respondents were not at all coerced to participate but were persuaded to do so respectfully and voluntarily. All information provided was treated with high level of confidentiality.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The chapter provides data analysis results and derives meaning from the output. The key output includes descriptive and inferential statistics. In addition, as part of introduction, the study provides as well the response rates and useful background information. For each output, interpretations are also provided along with key comparisons, contrast and discussions. The presentation is aligned to the research objectives.

4.2 General Information

This section gives reliability analysis results and a summary of the response rate achieved. Reliability is represented by the results of the Cronbach's Alpha Reliability Analysis.

4.2.1 Reliability of the Research Instrument

The study used the Cronbach's Alpha reliability analysis method for testing the instrument's reliability. The results of the reliability analysis are captured in Table 4.1.

Table 4.1: Chronbach's Alpha Reliability Analysis

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Administrative Tax Reforms	.723	.798	5
Tax Policy Reforms	.701	.790	11
Technological Tax Reforms	.725	.796	4
Tax Compliance	.710	.788	3
Average	.715	.793	23

Source: Survey data (2020)

Gliem and Gliem (2003) posits that in social science research situations, a reliability coefficient of greater than 0.70 would be deemed as acceptable. The Cronbach's alpha coefficient for 23 items stood at 0.793. This indicated a high level of internal consistency of the instrument.

4.2.2 Response Rate

Using the drop and pick method, the researcher distributed a total of 95 questionnaires to the various targeted respondents. Out of these, however, only 79 questionnaires were returned. This represented a response rate of 83.16 per cent. According to Mugenda and Mugenda (2003), a response rate of 50 percent is considered adequate, 60 percent good and above 70 percent very good. Hence, the response rate was very good and therefore acceptable for analysis purposes.

4.2.3 Profile of SMEs and Respondents

This sub section profiles the SMEs and the respondents targeted by the study. The statistics cover the gender, level of education, business segment and period of SME existence.

4.2.3.1 Level of Education

Table 4.2 captures statistics on respondent's level of education. The information is useful in determining the ability of the respondents to participate in the study and effectively provide the information sought.

Table 4.2: Highest Level of Education

	Frequency	Percent
Secondary	43	54.4
Certificate	10	12.7
Diploma	24	30.4
Undergraduate	2	2.5
Total	79	100.0

Source: Survey data (2020)

More than half of the participants (54.40%) had only secondary school qualifications. Only a small proportion (2.5%) of SME owners had degree qualifications. A conclusion was therefore reached that most SMEs' owners only had basic educational knowledge and experience.

4.2.3.2 Gender

More than half of the respondents (55.70%) were male while the remaining proportion (44.30%) were female. This indicates that majority of SMEs in the county may be owned by male

entrepreneurs. The statistics echo past indications by Mwobobia (2012) and Belwal, Tamiru, and Singh (2012) on need to advance and promote women entrepreneurship in Kenya.

4.2.3.3 Age of the Business

Respondents were asked to indicate the period during which the small scale enterprises had been in existence. Close to half of the enterprises had existed for less than 5 years. Only a small proportion of 12.66 percent of SMEs had existed for more than 10 years. As such, most SMEs in the county had been existence for just a short period of time.

The respondents were also required to indicate their SMEs' business segment. Table 4.3 provides this information as provided by the participants.

Table 4.3: SME Business Segment

	Frequency	Percent
Manufacturing and Textiles	7	8.9
Retail	7	11.4
Health	8	10.1
Transport	8	10.1
Hospitality and Tourism	9	8.9
Construction and Mining	1	1.3
Financial Services	6	7.6
Agriculture	8	10.1
Marketing	8	10.1
Energy	6	7.6
Telecommunication and ICT	8	10.1
Education	3	3.8
Total	79	100.0

Source: Survey data (2020)

The highest number of participating SMEs were from the retail business segment. The least number of SMEs participating in the study was from the construction and mining segment.

Nonetheless, results suggested that respondents were distributed across all the business segments targeted.

4.3 Descriptive statistics.

This part covers the descriptive statistics on the variables conceptualised in the study. These include tax reforms and tax compliance among SMEs in Nyeri County, Kenya. The tax reforms addressed include administrative reforms, technological reforms and policy reforms.

4.3.1 Tax Compliance

This section presents descriptive statistics on tax compliance of the SMEs in Nyeri County, Kenya. Table 4.4 provides statistics on tax compliance of SMEs as indicated by tax registration, accuracy of reporting and timely tax payment.

Table 4.4: Tax Compliance of SMEs

	N	Minimum	Maximum	Mean	Std. Deviation
Tax Registration	79	1.0	5.0	3.692	.90434
Accuracy of Tax Reporting	79	1.0	5.0	3.353	.74256
Timeliness of Tax Payment	79	1.0	5.0	3.061	.92798
Average				3.368	.85829

Source: Survey data (2020)

The mean for tax registration (3.692) indicates that the SMEs registration for tax purposes was fairly good. Nonetheless, the means for accuracy of tax reporting (3.353) and timeliness of tax payment (3.061) demonstrated only a moderate extent of compliance. On the overall, the mean of the means (3.37) indicate that the SMEs registered moderate level of tax compliance as rated by the respondents. Although registration was not badly off, results showed that there was only a moderate level of compliance with regard to accuracy of tax reporting and timely remittance of tax

dues. This is affirmed by the low average standard deviation (0.86) which shows that data was held close to the mean.

The study also sought to understand the condition of specific elements of compliance. Table 4.5 shows statistics on the proportion of SMEs registered for tax purposes tax registration of SMEs in Nyeri County over the past 10 years.

Table 4.5: SMEs Tax Registration

	N	Minimum	Maximum	Mean	Std. Deviation
Proportion of registered SMEs against annual projections.	79	34.724	67.653	50.765	15.342

Source: Survey data (2020)

On average, it was estimated registration compliance by SMEs stood at 50.8 percent. Thus, it was estimated that only half of SMEs in the county had been registered for tax purposes. The least proportion of annual tax registration compliance over the past ten years stood at slightly above a quarter of SMEs (34 percent) with the highest compliance standing at fairly above two thirds (68 percent). Thus, it was concluded that there was poor registration of SMEs to the tax net in Nyeri County.

The study further sought to understand the tax revenues raised from SMEs over the past 10 years from 2010 to 2019. Table 4.6 shows the results of the revenue raised in Millions.

Table 4.6: Tax Revenue from SMEs

	N	Minimum	Maximum	Mean	Std. Deviation
Tax Revenues (Kshs)	79	8.0967	12.8763	10.6203	9.52938

Source: Survey data (2020)

As the results indicate, tax revenue attributable to SMEs in Nyeri County averaged at 10.62 Million annually over the past ten years from 2010 to 2019. The least amounts of revenue collected from SMEs over this period was 8.1 Million with the highest being 12.9 Million.

4.3.2 Administrative Tax Reforms

This section covers descriptive statistics on administrative tax reforms as a key dimension to the current analysis. Table 4.8 provides statistics on various factors of administrative tax reforms for SMEs operating in Nyeri County, Kenya. Respondents were also requested to provide their opinion on various aspects administrative tax reforms.

Table 4.7: Administrative Tax Reforms

	N	Mean	Std. Dev
There are usually regular tax payer education forums organised by the revenue authorities to empower SMEs on tax issues.	79	2.4500	.81746
The revenue authority offer enough technical support to SMEs by the tax authorities.	79	3.4667	1.13931
The technical staff at KRA are competent committed in handling SME tax issues	79	3.5500	.33486
There are adequate taxpayers' support desks to ensure SMEs are well assisted on tax matters.	79	3.2001	1.30732
The tax authority is well decentralised to ensure that tax services are reachable to taxpayers including SMEs.	79	3.5833	.85538
Average	79	3.2501	.89087

Source: Survey data (2020)

As indicated by the mean of means (3.2), there was moderate level of agreement on the effectiveness and efficiency of the administrative tax reforms as implemented by KRA in Nyeri County. There was a shared opinion, as demonstrated by the mean (2.45) that that the tax payer education forums organized by the revenue authorities to empower SMEs on tax issues were not sufficient or regular enough. The revenue authority only moderately offered technical support to SMEs. The respondents further shared that the taxpayers' support desks established by KRA to ensure SMEs are well assisted on tax matters were inadequate. It was largely agreed that the tax

authority was well decentralized to ensure that tax services are reachable to taxpayers including SMEs. Further, the technical staff at KRA were largely competent and committed in handling SME tax issues. Respondents shared that administrative tax reforms affected their compliance largely by empowering them to self-comply and easing the hitches or difficulties involved.

4.3.3 Technological Tax Reforms

This part covers statistics on technological tax reforms which comprised a key variable to the study. Table 4.8 presents statistics on technological tax reforms and the impact on SMEs in Nyeri County.

Table 4.8: Technological Tax Reforms

	N	Mean	Std. Dev
The SME is aware of the many technology based innovations implemented by the revenue authority to enhance effective registration, filing and payment of tax obligations	79	3.8462	.75257
The tax technology infrastructure implemented by the tax authority has lowered the cost of compliance for the SME.	79	4.6424	1.3852
The revenue authority regularly conducts training among SMEs on use of technology to meet tax obligations.	79	3.1025	.54215
The technology backed reforms have made the process of complying more efficient for the SME.	79	3.7643	1.0847
The tax authorities have established satellite technical centres where SMEs can find technological assistance tax on tax compliance.	79	3.0251	.47279
Average	79	3.6761	.84748

Source: Survey data (2020)

The mean of means (3.68) shows that SMEs largely agreed on the efficiency and effectiveness of implementation of technological tax reforms in Nyeri County. The SMEs were largely cognizant of the many technology based innovations implemented by the revenue authority to enhance effective registration, filing and payment of tax obligations . Results showed that the tax technology infrastructure implemented by the tax authority had greatly lowered the cost of compliance for the SME. It was also largely held that technology backed reforms have made the process of complying more efficient for the SMEs. However, there was only moderate agreement

that the revenue authority regularly conducted training among SMEs on use of technology to meet tax obligations. The tax authorities had also only moderately established satellite technical centres where SMEs could seek technological assistance tax on tax compliance.

Respondents were also requested to indicate the extent to which various aspects of tax innovations as implemented by KRA were adopted for usage by the firm. Table 4.9 provides the statistics to this end.

Table 4.9: SME Adoption of Various Tax Innovations implemented by KRA

	N	Mean	Std. Dev
E-registration	79	3.8624	.70023
E-Filing	79	3.5234	1.0034
I-tax system	79	3.9286	.48302
Integrated Tax Management System	79	3.3202	.93857
Electronic Tax Register	79	3.0310	.87293
Average	79	3.5331	.79958

Source: Survey data (2020)

The mean of the means (3.53) represent high level of adoption and usage of various technological tax innovations implemented by Kenya Revenue Authority by the SMEs in Nyeri County. The highest adopted innovation is I-tax system with the least being the Electronic Tax Register. Respondents indicated that technological tax reforms impacted on SMEs' tax compliance by making it much time and cost efficient to comply with tax requirements such as through E-filing.

4.3.4 Policy Tax Reforms

This part covers descriptive statistics on policy tax reforms as a study variable guiding the current study. Table 4.10 gives statistics on various aspects of policy tax reforms and how they were implemented among SMEs and their likely impact on the firms.

Table 4.10: Policy Tax Reforms

	N	Mean	Std. Dev
The tax authority has implemented a simple tax regime for small and medium enterprises.	79	3.8004	.46467
The tax authority effects fines and penalties to punish illegal tax evaders.	79	3.5257	.87368
It has been easy and simple to understand and comply with the turnover tax targeting SMEs.	79	3.7747	.74747
The tax authorities provides incentives to motivate and encourage compliance among SMEs.	79	3.8001	.96739
The tax authorities carry out regular tax audits to ensure SMEs oblige to tax requirements.	79	3.0352	.95579
Average	79	3.5872	.80180

Source: Survey data (2020)

From the results (mean of means 3.59), it was indicated that the policy tax reforms were largely implemented among SMEs in Nyeri county, Kenya. This is validated by the low average standard deviation (0.80) which shows proximity of observations to the mean. It was largely held that the tax authority had implemented a simple tax regime for small and medium enterprises. The SMEs reported that the tax authority also largely effected fines and penalties to punish illegal tax evaders. SMEs further highly acknowledged that it has been easy and simple to understand and comply with the turnover tax targeting the firms. In addition, the tax authorities largely provided incentives to motivate and encourage compliance among SMEs. Nonetheless, the tax authorities only moderately carried out regular tax audits to ensure SMEs oblige to tax requirements. Respondents indicated that the policy tax reforms enhanced compliance by simplifying the process and conditions.

4.4 Inferential Statistics

The study also used inferential statistics (correlation and regression analysis) to determine the effect of the independent variables considered (tax reforms) on tax compliance of SMEs. The statistics were considered key as they allow for generalisations on the entire study population.

4.4.1 Correlation Analysis

The Pearson Correlation analysis was applied to explain the nature, strength and direction of relationship between each tax reform variable and tax compliance. Table 4.11 presents the Pearson correlation output.

Table 4.11: Pearson Correlation Analysis

		Tax Compliance
Administrative Tax Reforms	Pearson Correlation	.780**
	Sig. (2-tailed)	.002
	N	79
Policy Tax Reforms	Pearson Correlation	.603**
	Sig. (2-tailed)	.001
	N	79
Technological Tax Reforms	Pearson Correlation	.704**
	Sig. (2-tailed)	.011
	N	79

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

Source: Survey data (2020)

The Pearson Correlation Analysis results indicate that the independent variable with the greatest relationship with tax compliance is administrative tax reforms. This is followed by technological tax reforms and policy tax reforms in that order. The Pearson Correlation Coefficient for administrative tax reforms (0.780) represents a very strong and positive relationship with tax compliance. The significance threshold is observed as the p-value (0.002) is below the 5% level of significance. The study findings agree with Lisa and Hermanto (2018), Kim and Kim (2018), Ondimu (2015) and Musa and Ibrahim (2016) who established a positive correlation between administration tax reforms and tax compliance.

The Pearson Correlation Coefficients for policy tax reforms (0.603) shows a strong and positive relationship with tax compliance. The significance threshold is met as the p-value (0.001) is below the 5% level of significance. The study agrees with past studies including Kariba (2011), Inasius

(2019), Lisa and Hermanto (2018) and Kanyi (2015) who indicated that policy tax reforms showed a significant positive relationship with the level of tax compliance. The study however conflicts with Livoi (2017) who established that policy tax reforms were strongly negatively related with tax compliance.

The Pearson Correlation Coefficients for technological tax reforms (0.704) shows a very strong and positive relationship with tax compliance. The relationship is statistically significant since the p-value (0.011) is below the 5% level of significance. The study findings agree with past studies such as Ondieki (2017), Musa and Ibrahim (2016), Kanyinga, (2016), Kiring'a et al. (2017) and Ngigi (2015) who indicated that technological tax reforms have a positive relationship with tax compliance. The results however disagree with Livoi (2017) who indicated a very weak inverse relationship between technological tax reforms and corporate tax compliance at KRA.

4.4.2 Diagnostic tests

Diagnostic tests were considered key in ensuring that the general assumptions of the statistical procedures were observed. The tests included normality, multicollinearity, and heteroskedasticity tests. The Shapiro-Wilk test of normality was preferred for the normality test since the responses were only 79, a value that is less than 2000. If the responses were above this figure, the Kolmogorov-Smirnov test would have been appropriate. Key hypothesis were developed as follows for purposes of testing the data for normality. H_0 : The observed distribution fits the normal distribution. H_a : The observed distribution does not fit the normal distribution. As such, failure to reject the null hypothesis would imply assumption of normality status of the data set. Table 4.12 gives statistics of the normality test.

Table 4.12: Shapiro-Wilk test of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Tax Compliance	.443	79	.075	.893	79	.079

a. Lilliefors Significance Correction

Source: Survey data (2020)

The P value of the Shapiro-wilk test of normality (0.79) is greater than 0.05 for tax compliance.

As such, the study failed to reject the null hypothesis H_0 . To that effect, an supposition was made that the data set was normally distributed (Shapiro & Wilk, 1965; Razali & Wah, 2011).

The study also tested the research data for multi collinearity. Table 4.13 provides statistics on multicollinearity output using Tolerance and Variance of Inflation factors.

Table 4.13: Multi Collinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Administrative Tax Reforms	.560	1.786
	Policy Tax Reforms	.339	2.950
	Technological Tax Reforms	.301	3.322

a. Dependent Variable: Tax Compliance

Source: Survey data (2020)

Tolerance values stood at 0.560, 0.339 and 0.301 for administrative tax reforms, policy tax reforms and technological tax reforms respectively. The Tolerance values all surpass the minimum threshold of 0.10 as recommended by the authors (Liu, Kuang, Gong, & Hou, 2003). Similarly, the Variance of Inflation Factors (VIF) output for the predictor variables stand at 1.786, 2.950, and 3.322 for administrative tax reforms, policy tax reforms and technological tax reforms respectively. The VIF values are all below the maximum or cut off point of 10. As such, the multi-collinearity problem was absent in the data set.

Finally, data was also tested for Heteroskedacity using Test Glejser as the choice method. The study developed the following decision rule for interpreting Heteroskedasticity Test: If the value Sig. > 0.05, then a conclusion would be made on the absence of the heteroscedasticity problem. In contrast, if the value Sig. <0.05, then it would be concluded that the problem of heteroscedasticity is present (Glejser, 1969; Long & Ervin, 2000). Table 4.14 presents the test results to this regard.

Table 4.14: Test Glejser for Heteroscedacity

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.305	.211		1.005	.071
Administrative Tax Reforms	.400	.211	1.150	2.819	.057
Policy Tax Reforms	.202	.109	.703	1.189	.062
Technological Tax Reforms	.801	.742	3.102	5.336	.076

a. Dependent Variable: AbsUt

Source: Survey data (2020)

Based on output, the obtained P values for administrative tax reforms, policy tax reforms and technological tax reforms stood at 0.057, 0.062, and 0.076 respectively. In all cases, the values are greater than 0.05 (> 0.05). A conclusion was reached to that extent that there was no heteroscedasticity problem in the data set (Long & Ervin, 2000).

4.4.3 Regression Analysis

Regression analysis was done to determine the effect of tax reforms on tax compliance among SMEs in Nyeri County, Kenya. Table 4.15 provides statistical output of the F test.

Table 4.15: F- Test on ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	223.548	3	74.516	106.007	.001
Residual	17.399	76	.228		
Total	240.947	79			

a. Predictors: (Constant), Administrative Tax Reforms, Policy Tax Reforms, Technological Tax Reforms

b. Dependent Variable: Tax Compliance

Source: Survey data (2020)

The p value output (0.001) is less than 0.05 level of significance. Therefore, there was evidence that at least one of the tax policy reforms were useful predictors of tax compliance by SMEs.

The regression model summary, a key output of the regression analysis, was useful in explaining the usefulness of the model in predicting tax compliance of SMEs. Table 4.16 presents the regression model summary.

Table 4.16: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.869 ^a	.755	.738	.21501	2.331

a. Predictors: (Constant), Administrative Tax Reforms, Policy Tax Reforms, Technological Tax Reforms

b. Dependent Variable: Tax Compliance

Source: Survey data (2020)

As explained by R Square, the coefficient of determination, 75.50% of the variation in tax compliance (the dependent variable) is explained by variability in tax reforms variables i.e. administrative tax reforms, policy tax reforms, and technological tax reforms. To that effect, only 24.50% of variation in the tax compliance was explained by other predictors not included in the model.

Table 4.17 captures the multiple linear regression coefficients. Tax compliance was analysed as the dependent variable while tax reforms (administrative tax reforms, policy tax reforms, and technological tax reforms) formed the independent variables.

Table 4.17: Regression Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.007	.087		34.463	.017
Administrative Tax Reforms	.901	.302	.603	2.813	.002
Policy Tax Reforms	.801	.284	.341	2.713	.010
Technological Tax Reforms	.890	.316	.408	2.162	.001

a. Dependent Variable: Tax Compliance

Source: Survey data (2020)

From the regression analysis results, the coefficients for all the tax reforms variables (administrative tax reforms, policy tax reforms, and technological tax reforms) show that they are all significant determinants of SMEs' Tax Compliance. Thus, tax reforms and their components are all useful predictors of tax compliance. The regression model is developed as:

$$\text{Tax Compliance} = 3.007 + 0.901 (\text{Administrative Tax Reforms}) + 0.801 (\text{Policy Tax Reforms}) + 0.890 (\text{Technological Tax Reforms}) + \text{Error Term.}$$

The coefficient for administrative tax reforms (0.901) has a p-value of 0.002 which is less than 0.05 or 5% level of significance. For that reason, the null hypothesis was therefore rejected and a conclusion made that administrative tax reforms is a useful predictor of tax compliance. The statistics further demonstrate that a unit enhancement in administrative tax reforms would result to a 0.901 unit improvement in tax compliance. The study findings agree with Lisa and Hermanto (2018), Kim and Kim (2018), Ondimu (2015) and Musa and Ibrahim (2016) who established a positive correlation between administration tax reforms and tax compliance. Nonetheless, the

study conflicts with Livoi (2017) who only found that administrative tax reforms yielded a negative effect on compliance.

The coefficient for policy tax reforms (0.801) has an associated p-value of 0.010 which is less than 0.05 statistical significance threshold. As such, the null hypothesis was rejected and a conclusion reached that policy tax reforms is a useful predictor of tax compliance. Therefore, a unit improvement in policy tax reforms would lead to a 0.801 unit increase in tax compliance by the SMEs. The study agrees with past studies including Kariba (2011), Inasius (2019), Lisa and Hermanto (2018) and Kanyi (2015) who indicated that policy tax reforms had a significant positive effect on the level of tax compliance. The study however conflicts with Livoi (2017) who confirmed existence of a negative effect of policy tax reforms on compliance.

The coefficient for technological tax reforms (0.890) has an associated p-value of 0.001 which is below the 5% level of significance. Thus, the null hypothesis was rejected and a conclusion reached that technological tax reforms is a significant determinant of SMEs' tax compliance. A unit increase in technological tax reforms would result in a 0.890 unit increase in SMEs' tax compliance levels. The study findings agree with past studies such as Ondieki (2017), Musa and Ibrahim (2016), Kanyinga, (2016), Kiring'a et al. (2017) and Ngigi (2015) who indicated that technological tax reforms have a positive effect on tax compliance. In context, gaps are clear on need to have the study done locally. The results however disagree with Livoi (2017) who indicated that technological tax reforms impacted negatively on tax compliance.

4.5 Summary of Key Findings

In summary, the regression analysis results provided evidence that all the tax reforms variables; administrative tax reforms, policy tax reforms, and technological tax reforms have a positive and

statistically significant effect on tax compliance. The coefficient for administrative tax reforms ($\beta=0.901$, $p=0.017$) shows that administrative tax reforms has a statistically significant effect on tax compliance. The coefficient for policy tax reforms ($\beta=0.801$, $p=0.002$) indicated that policy tax reforms has a statistically significant effect on tax compliance. The coefficient for technological tax reforms ($\beta=0.890$, $p=0.001$) indicates that technological tax reforms has a statistically significant effect on tax compliance. The results of Pearson correlation analysis indicated that administrative tax reforms ($r=0.780$, $p=0.002$), policy tax reforms ($r=0.603$, $p=0.001$), and technological tax reforms ($r=0.704$, $p=0.011$) have a strong positive and statistically significant relationship with tax compliance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter gives a quick review of the study and its findings. It covers a summary of study results, conclusions and policy recommendations on best tax reforms framework to improve SMEs' tax compliance. This chapter further covers important suggestions for further research.

5.2 Summary of Findings

The study sought to determine the effect of tax reforms on tax compliance by SMEs in Nyeri County, Kenya. The tax reforms variables analysed were administrative tax reforms, policy tax reforms and technological tax reforms. As such, the specific objectives were: to determine the effect of administrative tax reforms, policy tax reforms and technological tax reforms on SMEs tax compliance in Nyeri County, Kenya. Tax compliance was indicated by tax registration, accuracy of reporting and timely tax payments. A descriptive survey research design was adopted in the study. Analysis was done using both descriptive and inferential statistics. The inferential analysis included the multiple regression analysis and Pearson correlation Analysis.

5.2.1 Tax Compliance of SMEs in Nyeri County

On tax compliance, results indicated that the SMEs registered moderate level of tax compliance as rated by the respondents. Although registration was not badly off, results showed that there was only a moderate level of compliance with regard to accuracy of financial reporting and timely remittance of tax dues. It was observed that half of SMEs in the county were non-compliant on basis of tax registration. Thus, it was concluded that there was poor registration of SMEs to the tax net in Nyeri County.

5.2.2 Tax Reforms and SMEs' Tax Compliance

Tax reforms, the study indicated, plays a key role in determining the level of tax compliance among SMEs. Specifically, all types of reforms instituted by KRA (administrative tax reforms, policy tax reforms, and technological tax reforms) had an implication on SMEs' tax compliance levels. The institution of various reforms (administrative tax reforms, policy tax reforms, and technological tax reforms) by KRA accounted for more than three quarters of the variation in tax compliance. Thus, the authority should advance the implementation of tax reforms so as to continually deliver positive compliance levels among small businesses.

5.2.3 Administrative Tax Reforms and SMEs' Tax Compliance

The results demonstrated that administrative tax reforms play a key role in positively enhancing the level of tax compliance among SMEs. Thus, enhancement of administrative tax reforms would also lead to an improvement in tax compliance. There was only moderate level of agreement on the effectiveness and efficiency of the administrative tax reforms as implemented by KRA in Nyeri County. The tax payer education forums organized by the revenue authorities to empower SMEs on tax issues were found to be insufficient and not regular enough. The revenue authority only moderately offered technical support to SMEs. The taxpayers' support desks established by KRA to ensure SMEs are well assisted on tax matters were inadequate. Nonetheless, the tax authority was well decentralized to ensure that tax services are reachable to taxpayers. The competency and commitment of the technical staff at KRA was not questioned.

5.2.4 Technological Tax Reforms and SMEs' Tax Compliance

Technological tax reforms, the results demonstrated, played a critical role in positively shaping the level of SMEs' tax compliance. The results demonstrated that an improvement in the implementation of technological tax reforms would result in an improvement in tax compliance.

The results showed that there was high level of efficiency and effectiveness in implementation of technological tax reforms in Nyeri County. The SMEs were largely cognizant of the many technology based innovations implemented by the revenue authority to enhance effective registration, filing and payment of tax obligations.

Results showed that the tax technology infrastructure implemented by the tax authority had greatly lowered the cost of compliance for the SME. It was also largely held that technology backed reforms had eased the process of complying for the SMEs. However, the revenue authority only moderately organised training among SMEs on use of technology to meet tax obligations. The tax authorities had also only moderately established satellite technical centres where SMEs could seek technological assistance tax on tax compliance. The results further indicated high level of adoption and usage of various technological tax innovations implemented by Kenya Revenue Authority including E-registration, E-Filing, I-tax system, Integrated Tax Management System and Electronic Tax Register.

5.2.5 Policy Tax Reforms and SMEs' Tax Compliance

Policy tax reforms, the study established, are useful in positively driving the level of SMEs' tax compliance. An enhancement in policy tax reforms would lead to an improvement on tax compliance. Results showed that the policy tax reforms were largely implemented among SMEs in Nyeri County, Kenya. The tax authority had largely implemented a simple tax regime for small and medium enterprises. The SMEs reported that the tax authority also largely effected fines and penalties to punish illegal tax evaders. SMEs further highly acknowledged that it has been easy and simple to understand and comply with the turnover tax targeting the firms. In addition, the tax authorities largely provided incentives to motivate and encourage compliance among SMEs.

Nonetheless, the tax authorities only moderately carried out regular tax audits to ensure SMEs oblige to tax requirements.

5.3 Conclusion of the Study

A number of conclusions were made regarding tax reforms and tax compliance of SMEs. The study concluded that there was poor tax compliance by SMEs in Nyeri County, Kenya. Regarding administrative tax reforms, regression analysis concluded that administrative tax reforms play a significant role in determining the level of tax compliance among SMEs. The Pearson Correlation Analysis concluded that administrative tax reforms were strongly and positively related with tax compliance. Nonetheless, it was concluded that the tax authority was only moderately effective and efficient in implementing the administrative tax reforms in Nyeri County. It was further concluded that the technical support offered to SMEs was inadequate. Further, the taxpayers' support desks established by KRA to ensure SMEs are well assisted on tax matters were inadequate as reported by respondents.

Regression analysis results led to a conclusion that technological tax reforms plays a key role in determining the level of SMEs' tax compliance. On the same note, the Pearson Correlation Analysis informed a conclusion that technological tax reforms and tax compliance were strongly and positively correlated. Although results indicated a high level of efficiency and effectiveness in implementation of technological tax reforms in Nyeri County, it was concluded that the revenue authority only moderately organised training among SMEs on use of technology to meet tax obligations. Further, it was concluded that the satellite technical centres established to assist SMEs were inadequate as reported by participants.

Regression analysis results informed a conclusion that policy tax reforms was a useful predictor of tax compliance among SMEs. The Pearson Correlation Analysis results further informed a conclusion that policy tax reforms and tax compliance were strongly and positively correlated. Nonetheless, although the results showed that the policy tax reforms were largely implemented, it was concluded that tax audits were not sufficiently conducted to ensure SMEs oblige to tax requirements.

5.4 Recommendations of the Study

Policy recommendations are made based on unique findings of the study. The study recommends enhanced adoption and implementation of tax reforms, and particularly the administrative tax reforms which were found to be inadequately entrenched yet had the potential to shape the tax compliance levels of SMEs. The study recommends heightened activities towards getting the high number of non-compliant SMEs into the tax net, so as to enhance the tax revenues which were quite low. There should as well be regular tax trainings to ensure accurate of financial reporting and timely remittance of tax dues by SMEs. There should also be enhanced taxpayer education on matters related to I tax.

The direct technical support offered to SMEs by the tax authorities should be enhanced. The revenue authority should engage more dedicated tax personnel who understand the dynamics of the SME sector and how to enhance compliance. Further, the Kenya Revenue Authority should increase taxpayers' support desks established at various outlets to ensure SMEs are well assisted on tax matters. The study recommends that the Kenya Revenue Authority carries out regular training to empower SMEs on use of technology to meet tax obligations. Specifically, the study recommends enhanced training on I-Tax. In addition, the study recommends the establishment of more satellite technical centres to assist SMEs in complying. With regard to policy tax reforms,

the study recommends that KRA carries out more regular tax audits to ensure SMEs oblige to tax requirements. The study further recommends adoption of simpler payment options such as mobile money platforms such as Mpesa, Airtel Money and other mobile banking innovations.

5.5 Contribution to Knowledge

The study makes significant contribution to existing body of knowledge on the subject matter; tax reforms and tax compliance among SMEs. While past studies have concentrated with tax reforms and general performance of the tax authority, the current study focused on tax compliance among SMEs which has been a thorny issue in policy circles. Specifically, the study gives insights on tax registration, accuracy of financial reporting and timeliness of tax remittance, factors that are scarcely addressed in past studies. This is a paradigm shift from past studies and is key in determining various aspects of tax compliance among SMEs and the extent to which tax reforms have been able to provide working solutions. The theory underlines the importance of tax reforms as fronted by deterrence theory and the optimal theory of taxation which supports a case for technological, administrative and policy reforms as a way of improving the state of tax compliance.

5.6 Limitations of the Study

The study was constrained by a number of factors. Limited time was one of the shortcomings of the study. The scope was limited to Nyeri County as time would not allow consideration of an expanded scope. The researcher's limited resources were also a limiting factor that hindered consideration of a larger scope for analysis. Some respondents were hesitant to give information with fear that information would be divulged. To mitigate this, the study acquired necessary research permits and approvals from Kenyatta University and National Commission for Science, Technology and Innovation (NACOSTI) to guarantee the respondents on the purely academic goal of the study. The study also encountered non-response owing to the busy nature of work of the

respondents. This constraint was addressed by adopting the drop and pick method of administration.

5.7 Areas for Further Study

Owing to research constraints occasioned by limited resources, the study was limited to analysis of Small and Medium Scale Enterprises in Nyeri County, Kenya. The study recommends future studies to consider a wider contextual scope such as all the SMEs in sub-Saharan Africa so as to appraise various tax authorities within the region. As such, the study recommends a further study on tax reforms and SMEs' tax compliance in Sub-Saharan Africa. More contextual gaps remain unfulfilled on need to cover other types of organisations such as the manufacturing firms which have been identified as key sectors that can turn the fortunes of Kenya's economic growth and which are often hurt by tax issues with the revenue authorities. Specifically, the study recommends a study on tax reforms and tax compliance among manufacturing firms in Kenya. On methodological gaps that remain inadequately addressed, it is recommended that future studies use a wide range of indicators for compliance, other than just the registration, accuracy of financial reporting and timely payment of tax. The study relied purely on primary data resources. It is recommended that future studies seek to exploit use of secondary data from the tax authority for more authoritative findings.

References

- Alm, J., & El-Ganainy, A. (2013). Value-added taxation and consumption. *International Tax and Public Finance*, 20(1), 105–128.
- Alm, J., Jackson, B. R., & McKee, M. (1993). Fiscal exchange, collective decision institutions, and tax compliance. *Journal of Economic Behavior & Organization*, 22(3), 285–303.
- Alstads, A., Johannesen, N., & Zucman, G. (2019). Tax evasion and inequality. *American Economic Review*, 109(6), 2073–2103.
- Alstadsæter, A., Johannesen, N., & Zucman, G. (2018). *Tax Evasion and Tax Avoidance*. Unpublished.
- Becker, G. S. (1968). Crime and punishment: An economic approach. In *The economic dimensions of crime* (pp. 13–68). Springer.
- Bell, E., Bryman, A., & Harley, B. (2018). *Business research methods*. Oxford university press.
- Bello, K. B., & Danjuma, I. (2014). Review of Models/Theories Explaining Tax Compliance Behavior. *Sains Humanika*, 2(3).
- Biørn, E. (2017). *Taxation, technology, and the user cost of capital* (Vol. 182). Elsevier.
- Bodea, C., & LeBas, A. (2013). *The origins of social contracts: Attitudes towards taxation in urban Nigeria*. Oxford: Centre for the study of African Economies.
- Central Bank of Kenya (2019), Government Finance Statistics. Accessed through:
<https://www.centralbank.go.ke/statistics/government-finance-statistics/>
- Collis, J., & Hussey, R. (2009). *Business research: A practical guide for undergraduate & postgraduate students* (3rd ed). Hampshire, [UK] ; New York, NY: Palgrave Macmillan.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

- Devos, K. (2014). Tax compliance theory and the literature. In *Factors Influencing Individual Taxpayer Compliance Behaviour* (pp. 13–65). Springer.
- Fiawoo, J. (2018). *Closing Africa's Tax Revenue Gap*. Retrieved from International Monetary Fund website: <https://www.theglobalist.com>
- Fjose, S., Grünfeld, L. A., & Green, C. (2010). Identifying SME roles and obstacles to SME growth. *MENON-Publication No. 14*.
- Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*. Retrieved from <https://scholarworks.iupui.edu>
- Goldin, J. (2015). Optimal tax salience. *Journal of Public Economics*, 131, 115–123.
- Hansen, A. H. (2018). *Monetary theory and fiscal policy*. Pickle Partners Publishing.
- Heathcote, J., & Tsujiyama, H. (2015). *Optimal income taxation: Mirrlees meets Ramsey*.
- Inasius, F. (2019). Factors influencing SME tax compliance: Evidence from Indonesia. *International Journal of Public Administration*, 42(5), 367–379.
- Institute of Certified Public Accountants of Kenya (2015), *Income Tax Policy Updates*, www.icpak.com
- Jackson, S. L. (2015). *Research methods and statistics: A critical thinking approach*. Cengage Learning.
- Kanyi, P. (2015). *Effect of tax policy reforms on tax revenue in Kenya* (PhD Thesis). Egerton University.
- Kanyinga, E. M. (2016). *Effect of Tax Reforms on Compliance with Turnover Tax among Small and Medium Enterprises in Industrial Area, Nairobi*. (PhD Thesis). University of Nairobi.
- Kariba, L. W. (2011). An analysis of tax reform policies and tax revenues in Kenya. *Unpublished MBA Paper, University of Nairobi*.

- Keen, M., & Slemrod, J. (2017). Optimal tax administration. *Journal of Public Economics*, 152, 133–142.
- Kenya National Bureau of Statistics (2018), Micro, Small and Medium Enterprises (MSME) Survey. Accessed through <https://www.knbs.or.ke>
- Kenya Revenue Authority (2018), Annual Revenue Performance Report. Accessed through: <https://www.kra.go.ke/images/publications/Revenue-Performance-Report-2018-19.pdf>
- Kenya Revenue Authority (2015), Annual Revenue Performance Report. Accessed through: <https://www.kra.go.ke/images/publications/Revenue-Performance-Report-2015-16.pdf>
- Kenya Institute for Public Policy Research and Analysis (2013), Analysis of the Kenyan Taxation system. Accessed through: <https://kippra.or.ke>
- Kim, S., & Kim, T. (2018). Tax Reform, Tax Compliance and State-building in Tanzania and Uganda. *Africa Development / Afrique et Développement*, 43(2), 35–64. Retrieved from JSTOR.
- Kirchler, E., & Wahl, I. (2010). Tax Compliance Inventory: TAX-I Voluntary tax compliance, enforced tax compliance, tax avoidance, and tax evasion. *Journal of Economic Psychology*, 31(3), 331–346. <https://doi.org>
- Kiring'a, S. E., Jagongo, A., Kio, J. M., Njuguna, I. M., Muguongo, G. K., Nganyi, M. S., Mwangi, M. (2017). Impact of online tax filing on tax compliance among small and medium enterprises (MSE) in Kibwezi Sub-County in Kenya. *International Journal of Current Research*, 9(4), 45196–45206.
- Knoll, B., Riedel, N., Shamsfakhr, F., & Strohmaier, K. (2017). Corporate tax evasion and avoidance in developing countries. In *The Routledge Companion to Tax Avoidance Research* (pp. 225–241). Routledge.

- Kothari, C. R. (2011). *Research methodology: Methods and techniques*. Retrieved from <http://books.google.com>
- Livoi, G. M. (2017). *The Effect of Tax Reforms on Corporate Tax Compliance to Kenya Revenue Authority* (PhD Thesis). KCA University.
- Mabugu, R. E., & Simbanegavi, W. (2015). Tax and expenditure reforms in Africa: An overview. *Journal of African Economies*, 24(suppl_2), ii3–ii15.
- Mankiw, N. G., Weinzierl, M., & Yagan, D. (2009). Optimal taxation in theory and practice. *Journal of Economic Perspectives*, 23(4), 147–74.
- Maseko, N. (2014). Determinants of tax compliance by small and medium enterprises in Zimbabwe. *Journal of Economics and International Business Research*, 2(3), 48–57.
- McKerchar, M., & Evans, C. (2009). Sustaining Growth in Developing Countries through Improved Taxpayer Compliance. *Challenges for Policy Makers and Revenue Authorities. Ejournal of Tax Research*, 7–171.
- Mellon, A. W. (2016). *Taxation: The people's business*. Pickle Partners Publishing.
- Mirrlees, J. A. (1976). Optimal tax theory: A synthesis. *Journal of Public Economics*, 6(4), 327–358.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods*. Nairobi: ACTS.
- Mugenda, O. M., & Mugenda, A. G. (2012). *Research methods dictionary*. Applied Research & Training Services (Nairobi).
- Musau, N. (2015). Determinants of tax compliance among small and medium enterprises in Kenya: A case of Nairobi County. *School of Economics, University Of Nairobi*.
- Mutuku, C. (2015). Assessing fiscal policy cyclicity and sustainability: A fiscal reaction function for Kenya. *Journal of Economics Library*, 2(3), 173–191.

- Ngigi, M. B. (2015). *The Effect of Integrated Tax Management System on Tax Compliance by Small and Medium Enterprises in the Central Business District, Nairobi County. Unpublished Master's Thesis, University of Nairobi, Nairobi, Kenya.*
- Ngotho, J., & Kerongo, F. (2014). Determinants of revenue collection in developing countries: Kenya's tax collection perspective. *Journal of Management and Business Administration, 1*(1).
- Okech, T. C., & Mburu, P. G. (2011). *Analysis of responsiveness of tax revenue to changes in national income in Kenya between 1986-2009.*
- Ondieki, D. B. (2017). *The Effect of Itax System on Revenue Collection in Kenya.*
- Ondimu, O. M. (2015). *Effects of tax reforms on compliance of small and medium enterprises in Kenya; a case of Kisumu town. (PhD Thesis). Kenyatta University.*
- Oricchio, G., Lugaresi, S., Crovetto, A., & Fontana, S. (2017). SMEs in Europe: An Overview. In G. Oricchio, A. Crovetto, S. Lugaresi, & S. Fontana (Eds.), *SME Funding: The Role of Shadow Banking and Alternative Funding Options* (pp. 7–41). https://doi.org/10.1057/978-1-137-58608-7_2
- Organization for Economic Cooperation and Development (OECD, 2011), *Taxation in Perspective*. Accessed through: <https://www.oecd.org>
- Ortega, D., & Sanguinetti, P. (2013). *Deterrence and reciprocity effects on tax compliance: Experimental evidence from Venezuela.*
- Pratt, T. C., Cullen, F. T., Blevins, K. R., Daigle, L. E., & Madensen, T. D. (2006). The empirical status of deterrence theory: A meta-analysis. *Taking Stock: The Status of Criminological Theory, 15*, 367–396.

- Ramsey, F. P. (1927). A Contribution to the Theory of Taxation. *The Economic Journal*, 37(145), 47–61.
- Rile, R. M. (2011). The cost of tax abuse; A paper on the cost of Tax evasion. *Tax Justice Network*.
- Saez, E., & Stantcheva, S. (2018). A simpler theory of optimal capital taxation. *Journal of Public Economics*, 162, 120–142.
- Schneider, M. (2019). Taxation, Innovation, and Entrepreneurship. *The Economic Journal*, 129(620), 1731–1781.
- Trek, S. (2015). *Poisson distribution*. Retrieved from <http://terras-altas.net.br>
- Tuomala, M. (2016). *Optimal redistributive taxation*. Oxford University Press.
- Waithera, S. (2018). *Tax Compliance Challenges Among Small and Medium Enterprises in Kenya*. (pp. 31–40). University of Nairobi.

Appendix I: Letter of Transmittal

Dear Respondent,

RE: Request for Research Data

I am a postgraduate student of Kenyatta University. I am pursuing an MBA degree in Accounts and currently undertaking a research on the effects of tax policy reforms and tax compliance among Small and Medium Enterprises in Nyeri County, Kenya. The attached questionnaire is meant for collection of data to assist in fulfilling the objectives of the study.

The instrument is structured into three main sections; A, B and C. Section A contains general questions and aims at obtaining background data that helps understand the respondents. Section B contains objective questions on various variables informing the study; administrative tax reforms, policy tax reforms and technological tax reforms. Section C contains questions on SMEs' tax compliance.

You are kindly requested to complete the questionnaire as honestly as possible. All information provided will be handled in confidence and will not be used for other objectives apart from fulfilment of the academic endeavor.

Yours,

Erick Muceke Mathenge

Appendix II: Questionnaire

This questionnaire seeks to collect data on tax reforms and tax compliance among SMEs in Nyeri County, Kenya. The instrument is structured into three main sections; A, B and C. Section A covers general questions regarding the SME owners and their business. Section B contains objective questions on the independent variables (tax reforms); administrative tax reforms, technological tax reforms, and policy tax reforms. Section C covers questions on the dependent variable; tax compliance among SMEs in Nyeri County, Kenya. Kindly respond to the questionnaire items as guided by specific instructions given.

SECTION A: GENERAL INFORMATION

1. Indicate your gender by ticking one category. Male Female

2. Indicate by ticking appropriately, the SME Business Segment.

Financial Services Agriculture Marketing

Transport Hospitality and Tourism Construction

Manufacturing Retail Health

Others. -Indicate in the space provided.....

3. For how long has the SME been in existence? Tick accordingly.

Less than 1 year 1-4 years

5-8 years 8-10 years

More than 10 years

4. Indicate your level of education. Tick accordingly.

Primary Level Secondary Level

College Certificate Diploma Level

Degree

Others . State briefly.....

SECTION B: TAX REFORMS

I: ADMINISTRATIVE TAX REFORMS

5. To what extent are the following statements valid administrative tax reforms and their implication on SMEs? Tick appropriately.

SCALE: Use; 1- not at all, 2-small extent, 3- moderate extent, 4- great extent and 5 – very great extent.

	1	2	3	4	5
There are usually regular tax payer education forums organised by the revenue authorities to empower SMEs on tax issues.					
The revenue authority offer enough technical support to SMEs by the tax authorities.					
There are adequate taxpayers’ support desks to ensure SMEs are well assisted on tax matters.					
The technical staff at KRA are competent committed in handling SME tax issues					
The tax authority is well decentralised to ensure that tax services are reachable to taxpayers including SMEs.					

6. In what ways have the administrative tax reforms impacted on SMEs’ tax compliance? Indicate in the space provided.

.....

.....

.....

II: TECHNOLOGICAL TAX REFORMS

7. Indicate in your very honest opinion, the extent to which the following statements are true regarding the state of technological reforms.

SCALE: Use; 1- not at all, 2-small extent, 3- moderate extent, 4- great extent and 5 – very great extent

	1	2	3	4	5
The SME is aware of the many technology based innovations implemented by the revenue authority to enhance effective registration, filing and payment of tax obligations					
The tax technology infrastructure implemented by the tax authority has lowered the cost of compliance for the SME.					
The revenue authority regular conducts training among SMEs on use of technology to meet tax obligations.					

The technology backed reforms have made the process of complying more efficient for the SME.					
The tax authorities have established satellite technical centres where SMEs can find technological assistance tax on tax compliance.					

8. Rate the extent to which the SME uses the following the following aspects of tax innovations at the Kenya Revenue Authority. SCALE: Use; 1- not at all, 2-small extent, 3- moderate extent, 4- great extent and 5 – very great extent

	1	2	3	4	5
• E-registration					
• E-Filing					
• I-tax system					
• Integrated Tax Management System					
• Electronic Tax Register					
• E-registration					

9. In what ways have the technological tax reforms impacted on SMEs’ tax compliance? Indicate in the space provided.

.....

.....

.....

III: POLICY TAX REFORMS

10. Please indicate the extent to which the following propositions are correct with regard to policy tax reforms? Tick appropriately.

SCALE: Use; 1- not at all, 2-small extent, 3- moderate extent, 4- great extent and 5 – very great extent

	1	2	3	4	5
The tax authority has implemented a simple tax regime for small and medium enterprises.					

The tax authority effects fines and penalties to punish illegal tax evaders.					
It has been easy and simple to understand and comply with the turnover tax targeting SMEs.					
The tax authorities provides incentives to motivate and encourage compliance among SMEs.					
The tax authorities carry out regular tax audits to ensure SMEs oblige to tax requirements.					

11. In what ways have the policy tax reforms impacted on SMEs' tax compliance? Indicate in the space provided.

.....

.....

.....

PART C: TAX COMPLIANCE

14. How would you rate your SME tax compliance based on the different indicators listed in the table? Tick appropriately.

SCALE: Use; 1- Very Poor, 2-Poor, 3- Average, 4- Good and 5 – Excellent

	1	2	3	4	5
Tax Registration					
Accurate reporting					
Timely Tax Payment					

-END-

Appendix III: Secondary Data Review Guide

TAX COMPLIANCE AMONG SMEs

1. a) Registration (number) of SMEs to the tax net over the past ten years.

YEAR	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Registered SMES										

b) Estimates of SMEs yet to be registered for tax purposes.

YEAR	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Unregistered SMES										

c) Proportion of SMEs registered over the past ten years for taxation purposes.

YEAR	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Proportion Of Registered SMEs										

2. Tax revenue raised from the SMEs in this region over the past ten years.

YEAR	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Tax from SMEs										

Appendix IV: Research Authorisation by Kenyatta University

Appendix V: Research Authorisation by NACOSTI