



UNIVERSITY OF NAIROBI

**DEPARTMENT OF REAL ESTATE AND CONSTRUCTION
MANAGEMENT**

**AN EVALUATION OF PROPERTY RATES COLLECTION
AND ENFORCEMENT IN DEVOLVED SYSTEMS OF
GOVERNANCE**

A CASE STUDY OF NAIROBI CITY COUNTY

BY

AYUB ODANYA NABURI

B92/81955/2015

RESEARCH PROJECT

SUBMITTED IN PARTIAL FULFILLMENT FOR AWARD OF

M.A. IN VALUATION AND PROPERTY MANAGEMENT

NOVEMBER 2017

DECLARATION

I, NABURI ODANYA AYUBU, do hereby declare that this is my original work and has not been presented in any other University for the award of degree.

Signature:

Date 30th November, 2017

NABURI ODANYA AYUBU

SUPERVISOR'S DECLARATION

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

Signature.....

Date 30th November, 2017

Dr. Winnie Mwangi, PhD

DEPARTMENT OF REAL ESTATE AND CONSTRUCTION MANAGEMENT

UNIVERSITY OF NAIROBI

DEDICATION

To God, the Abba Father

I would like to dedicate this project to God the Almighty, for His surpassing grace and unmerited favour in my life.

To Rateable Property Owners

To all rateable property owners globally who comply fully and promptly in payment of rates to devolved systems of governance.

ACKNOWLEDGEMENTS

I am grateful to the Almighty God for bringing me this far. I attribute the success of this research to the efforts of many people.

My utmost gratitude goes to my dedicated supervisor Dr. Winnie Mwangi, for her invaluable and consistent counsel, advice, patience and criticism throughout the execution of this research. My appreciation also goes to the members of staff of the Department of Real Estate and Construction Management who guided and assisted me in my studies. Great deal of gratitude goes especially to the lectures of the department all of whose criticisms and counsel I do appreciate.

I appreciate the efforts of Mercy Asiko and Martha Waithera, who diligently assisted in data collection. I am indebted to my colleagues in Ark Consultants Limited for their amazing support and encouragement through the research writing period. I am grateful to Charity Muringo (Department of Land Rates), Irene Kihara and Murathi Nyaga (Debt Collection Unit) of Nairobi City County who facilitated land rates' data availability and accessibility.

In addition, I thank my loving mother, siblings especially Daniel and close friends for their constant love, support and encouragement. I remain eternally indebted to you all.

Special appreciations to my dear friend Cherono Winnie for her amazing support, love and constant encouragement.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
CHAPTER ONE	1
INTRODUCTION AND THE STUDY BACKGROUND	1
1.0 Introduction	1
1.1 Problem Statement	2
1.2 Research Objectives	4
1.3 Research Questions.....	4
1.4 Research Hypothesis	4
1.5 The Scope and Area of Study	4
1.6 Significance of the Study	5
1.7 Organization of the Study	5
1.8 Definition of Terms	6
CHAPTER TWO	7
LITERATURE REVIEW	7
2.0 Introduction	7
2.1 Overview of Property Tax	7
2.1.1 Definition Property Tax	7
2.1.2 History of Property Rating	7
2.1.3 Principles of Property Taxation	9
2.1.4 Types of Property Taxation.....	11
2.1.5 Importance of Property Rating.....	11
2.1.6 Basis of Property Rating	12
2.1.7 Strengths of Property Rating.....	13
2.2 Property Rates Administration.....	14
2.2.1 Salient Features of an Effective Property Rates Administration System	16
2.3 Property Rates Collection.....	17
2.3.1 Methods and Players of Property Rates Collection.....	17

2.3.2 Collection Ratio and Penalties	18
2.3.3 Property Rates Collection Model	19
2.3.4 Factors Affecting Property Rates Collection Ratio	19
2.3.5 Challenges Facing Property Rates Collection	21
2.4 Legal Rating Framework in Kenya	24
2.5 Property Rates Reform in Kenya	26
2.6 Property Rates Enforcement Tools	27
2.7 Property Rating in Different Countries	29
2.8 Conceptual Framework	34
CHAPTER THREE.....	37
RESEARCH METHODOLOGY	37
3.0 Introduction	37
3.1 Background of the Area of Study	37
3.2 Research Design	37
3.3 Population, Sample Size and Sampling Technique	40
3.4 Data Collection Methods	42
3.5 Variable Identification, Description and Measurement.....	44
3.5.1 Dependent and Independent Variables.....	44
3.5.2 Measurement of Variables	44
3.5.3 Design of the Likert Scale.....	45
3.6 Data Analysis and Presentation	45
3.7 Hypothesis Testing	46
3.6 Summary	47
CHAPTER FOUR	48
DATA ANALYSIS AND PRESENTATION	48
4.0 Introduction	48
4.1 Respondents' Background Information	48
4.2 Respondents with Outstanding Property Rates.....	49
4.3 Compliance in Payment of Property Rates in NCC from 2010 to 2015.....	50
4.4 Contribution of Property Rates to Nairobi City County Revenue	51
4.5 Property Rates' Collection and Enforcement Tools in Nairobi City County	53
4.5.1 Improved Public Service	53
4.6 Challenges Hindering Compliance in Property Rates Payment in NCC.....	64
4.7 Hypothesis Testing	67
4.8 Summary	67

CHAPTER FIVE	68
CONCLUSIONS AND RECOMMENDATIONS	68
5.0 Introduction	68
5.1 Summary of Major Findings	68
5.2 Conclusions	69
5.3 Recommendations	70
5.4 Limitations of the Study	72
5.5 Areas of Further Research.....	72
BIBLIOGRAPHY	73
APPENDIX	79

LIST OF TABLES

Table 2.1: Land Rates in Nairobi City County.....	26
Table 3.1: Nairobi City Development Zones.....	43
Table 3.2: Critical Value of Z.....	47
Table 4.1: Response Rate of the Questionnaires Administered.....	48
Table 4.2: Respondents with Outstanding Property Rates.....	49
Table 4.3: Annual Property Rates Liability and Collected Amount.....	50
Table 4.3.1 Rating of ‘Improved Public Service’ by the Respondents.....	54
Table 4.3.2 Rating of ‘Training on Property Rating Structure’ by the Respondents.....	55
Table 4.3.3 Rating of ‘Reducing Compliance Cost’ by the Respondents.....	56
Table 4.3.4 Rating of ‘Social Pressure’ by the Respondents.....	57
Table 4.3.5 Rating of ‘Provision of Discounts and Waivers on Interests & Penalties’ by the Respondents.....	58
Table 4.3.6 Rating of ‘Sanctions and Penalties’ by the Respondents.....	59
Table 4.3.7 Rating of ‘Operational Tax Debt Recovery’ by the Respondents.....	60
Table 4.4: Descriptive Statistics of the Enforcement Tools.....	61
Table 4.5: Mean Rating of the Effectiveness of Enforcement	

Tools in Ensuring Compliance.....	61
Table 4.6: The Calculated Z-score.....	63
Table 4.7: Z- Test of Statistical Significance.....	64

LIST OF FIGURES

Figure 2.1: Contribution of Property Rates Share in Own-Source Revenues and GDP in Kenya.....	27
Figure 2.2: Contribution of Property Rates to State Revenue in USA.....	33
Figure 2.4: Property Rates Contribution to Local Authority Revenue in USA.....	34
Figure 2.5: Conceptual Framework.....	36
Figure 3.1: Map of 47 Counties in Kenya.....	38
Figure 3.2: Map of Nairobi City Zones.....	39
Figure 4.1 Types of Property Owned by Respondents.....	49
Figure 4.2: Compliance in Payment of Property Rates in NCC from 2010 to 2015.....	51
Figure 4.3: Contribution of Property Rates to Total Annual NCC Income.....	52
Figure 4.4: Contribution of Property Rates to Annual NCC Own Source Revenue.....	52
Figure 4.5: Identification of Challenges in Hindering Compliance in Rates Payment.....	65
Figure 4.6: Challenges Hindering Compliance in Rates Payment.....	65

LIST OF ABBREVIATIONS

NCC.....	Nairobi City County
CBD.....	Central Business District
SPSS.....	Statistical Package for Social Sciences
USA.....	United States of America
IFMS.....	Integrated Financial Management System
KLGRP	Kenya Local Government Reform Programme
USV	Unimproved Site Value
CR.....	Collection Ratio
OECD	Organization for Economic Co-operation and Development
GDP.....	Gross Domestic Product

ABSTRACT

The problem of poor property tax collection and enforcement is rampant in developing countries including Kenya. This is evidenced by the following: poor contribution of property rates to local/devolved governments' revenue; insignificant contribution of property tax to GDP; increasing rate of defaulting in payment of property rates; low collection ratios; and high level of intergovernmental transfers. The poor collection and enforcement of property rates is worrying, thus necessitating the need to evaluate policies and practice of property rates collection and enforcement in devolved systems of governance in Kenya.

The study sought to determine property tax Collection Ratio (CR); identify property rates collection and enforcement tools in Nairobi City County; establish effectiveness of the property rates enforcement tools in ensuring fully compliance; and establish challenges facing property rates collection and enforcement in Nairobi City County.

The study focused on property rates collection and enforcement in Nairobi City County which hosts Kenya's capital. The study focused on Westlands, Njiru, Starehe, Makadara, Dagoretti, Embakasi, Kasarani, Langata and Kamukunji sub-counties which are divided into 20 zones. Rateable properties were sampled using stratified random sampling. All rateable properties within the city boundaries were placed into groups (strata) depending on the zones. Stratification was important because of non-homogeneity of rateable properties by zones. Each zone was considered as a stratum. The researcher considered a sample of Four (4) zones consisting of Two (2) commercial zones (Central Business District (CBD) and Upper Hill) and Two (2) residential zones (Makadara & Buruburu; and South B, South C & Lang'ata) to be good enough. A total of 40 samples were randomly selected from each of the Four (4) zones resulting into a total of 160 samples which was considered to be good enough. Other respondents included chief accountant in charge of rates and land rates collection and enforcement officers (debt collection unit).

The study involved the use of a semi-structured questionnaire which contained open and close-ended questions for collection of primary data. Secondary data was obtained from published text books, unpublished scholarly works and papers from real estate journals. Data analysis was done using SPSS and MS Excel. The descriptive statistics selected for this study included the mean, standard deviation, frequencies, maxima and minima. In addition, z-test was performed on the data. Data collected was represented in form of tables, charts and percentages.

From the data analyzed, the study concluded that collection ratio has been reducing over the last couple of years. Collection ratio dropped from 16.93 percent in 2011/2012 to 6.65 percent in 2014/2015. The study also identified property rates collection and enforcement tools utilized in Nairobi City County. They included the following: provision of discounts and waivers on property rates interest; sanctions and penalties; and social pressure eg publishing names of defaulters.

Provision of improved public services; operational debt recovery; sanctions and penalties; provision of discounts and waivers on interests & penalties; social pressure; and reducing compliance cost as tools of enforcement were found to be effective in ensuring compliance in rates payment. Challenges hindering compliance in property rates payment in Nairobi City County include: negative attitude of the public towards property rates and rates officials; unfair administration; discontentment with property rates administration; and complexities in understanding tax system and payment procedures.

In order to improve compliance in rates payment, the study recommends the following: provision of improved public services to boost rateable property owners' morale; use of an integrated computer assisted property rates administration system; capacity building of the administrators; and elimination of political intervention in the administration process.

CHAPTER ONE

INTRODUCTION AND THE STUDY BACKGROUND

1.0 Introduction

The role of property rates in financing the governments' activities does not need to be over-emphasized. Boamah (2013) considers property rates as the most reliable, common and maintainable source of income to devolved governments globally. Bahl and Martinez (2006) acknowledges property tax as one of the best revenue sources in enabling county governments' autonomy. Property rates provide a sustainable source of revenue, which is prerequisite to good governance and public service delivery at devolved government level (Karanja, 2004). The lucrative nature of property rates as a force of financing at county level makes it crucial for the realization of monetary devolution and the funding of public service provision (Boamah, 2013).

Bahl and Martinez (2006) suggest that for the numerous benefits of devolved governance to be enjoyed, local governments ought to have strong institutional capacity, adequate independence and freedom in mobilizing their own revenue. Key sources of revenue for county governments consist of internally raised income mobilized by county governments within their jurisdiction and external monetary transfers. Independence of devolved governments is achieved through internally generated funds (Boamah, 2013). Petio (2013) argues that county governments end up losing autonomy and become inefficient in implementing development projects in circumstances where internally generated funds are less than national fiscal transfers.

Property taxation has a lot of untapped potential for raising revenue for devolved governments in most countries. As Bahl & Martinez (2006) argues, property rates is one of the best revenue sources in ensuring that county government achieve the necessary revenue autonomy at the county level. Avoiding property tax is very challenging, it can represent a non-distortional and highly proficient fiscal tool to local government if well administered (Fjeldstad and Heggstad, 2012). Effectiveness and efficiency of property rates' administration expansively depends on active national and county government involvement to ensure regular update of tax base details and property values; proper tax assessment; timely billing; effective collection and enforcement (Kelly, 2000).

In Kenya, Article 209 of the Constitution gives national government powers to raise revenue through imposing value-added tax; income tax; excise tax and customs duties. In addition, this article allows county governments to generate own income through levying property rates; charges on the services they provide within their jurisdictions and entertainment taxes. These

revenues sources have a great potential in providing the funds required for meeting the objectives of county governments. The significance of property rates in raising local revenue heavily depends on effectiveness of collection and enforcement function of tax administration system.

1.1 Problem Statement

The problem of poor property tax collection and enforcement is rampant in developing countries. Kelly (2000a) estimates that property rates account for between 40 and 80 percent of local revenues for sub-national governments globally. Contribution of property rates to local revenue in developed economies is above the global average. Available evidence indicates that property taxes account for 99%, 100%, 93% and 72 of locally generated tax revenue in the United Kingdom; Australia and Ireland; Canada; and USA respectively (Braid, 2005; Bahl, 2009; Hefferan and Boyd, 2010).

In developing countries, the contribution of property taxes to local revenues for devolved governments is less than 40 percent of (Barako and Shibia 2015). Fjeldstad and Heggstad (2012) highlighted that property rates accounts for about 10% to 30% of local government taxes in Tanzania, 14% in Ghana, 6.1% in Sierra Leone and less than 10% in Gambia. Political interference in property rates collection, lack of political support in enforcement and insufficient administrative capacity are cited as contributors to poor performance of property rates in developing countries (Fjeldstad and Heggstad, 2012).

Lall and Deichmann (2006) acknowledges the key role of property tax in GDP of developed countries, while noting that its potential is not fully utilized in developing nations as evidenced by poor collection. Globally, property taxes account for 0.5 to 3.0 percent of GDP (Kelly, 2000a). Property tax accounts for more than 2% of GDP in developed countries (Braid, 2005; Bahl, 2009; Hefferan and Boyd, 2010). Kaiser (2005) and Bahl (2009) estimated that property tax averages at 0.42% of GDP in developing and 0.54% in transitional countries. In developing countries, property taxes account for less than 0.6 percent of GDP (Barako and Shibia 2015). Poor contribution of property tax to GDP in developing countries is partially attributed to ineffective and inefficient rates collection and enforcement.

Karanja (2004) acknowledges that there is increasing trend of defaulting in payment of property rates leading to low revenue collection. Globally, property tax contribution to Gross Domestic Product (GDP) for sub-national governments is shrinking (Kelly, 2000a; Barako and Shibia 2015). The importance of property tax in Kenya has been declining from 0.37 percent of GDP in 1990-1991, to 0.22 percent in 2002/2003 then to 0.16 percent in 2009/2010. On the other

hand, contribution to own-source revenues has declined from 28 per cent in 2002/2003 to 24 percent in 2009/2010 (Barako and Shibia, 2015). The performance of rates administration depends on effectiveness of billing and collection.

Property rates collection ratios vary considerably across countries. In developing countries, the ratios range from 20 percent to 50 percent (Bahl and Vazquez, 2008; Sepulveda and Vazquez, 2012). Kelly (2013b) estimates that collection ratios in most OECD countries to be approximately 100 percent. The low property rates collection ratio in developing countries is attributed to poor collection of the billed rates and ineffective tax enforcement.

Poor property tax collection and enforcement is also evidenced by high level of intergovernmental transfers. Local governments in developing countries face inadequacies of finances to fund their expenses due to poor collection of domestic revenue including property rates resulting to high level of intergovernmental transfers. Chitembo (2009) in Ndunda, Ngahu and Wanyoike (2015) notes that in Botswana, rural councils receive 92 per cent of their annual revenue from the Central Government while urban councils 62 per cent. According to Commission on Revenue Allocation (2013), over 50 percent of expenditures of approximately 60 percent sub-national governments in Kenya are financed by transfers from national government. The level of county governments' reliance on the national government in Kenya is so high that at one point the Council of Governors considered calling for a national referendum to have annual county governments' allocation increased. Over reliance on transfers from the central government is a manifestation of poor revenue collection in counties partially resulting from ineffective collection and enforcement of property rates.

Diminishing performance of rates is attributed to poor collection methods and increasing rates liability especially among the owners of rateable properties which are undeveloped (Karanja, 2004). Tax enforcement against non-compliance determines the amount of revenue to be collected (Kelly, 2000). Kamba (2007) highlighted that most of the property rates' related reforms have been focusing on tax base and assessment system while overlooking collection and enforcement aspect of property rates administration. Rateable property owners ought to comply fully and promptly in order to meet the budget required for provision of public services. Proper enforcement ensures 100 per cent compliance in rates payment which guarantees provision and maintenance of public services within the local authority's jurisdiction.

The collection and enforcement of property rates is a major challenge facing devolved systems of governance in developing countries as they make attempts to boost local revenues. Kenya is one of the countries facing this challenge. There is a clear gap in policy, practice and knowledge

regarding property rates. The poor collection and enforcement of property rates in developing nations is worrying, thus necessitating the need to evaluate policies and practice of property rates collection and enforcement in devolved systems of governance in Kenya.

1.2 Research Objectives

1. To determine property tax Collection Ratio (CR) in Nairobi City County.
2. To identify tools of property rates collection and enforcement.
3. To establish the effectiveness of the property rates collection and enforcement tools.
4. To establish challenges facing property rates collection and enforcement in Nairobi City County.

1.3 Research Questions

1. What is the property rates Collection Ratio (CR) in Nairobi City County?
2. Which are the tools of property rates collection and enforcement?
3. How effective are the property rates collection and enforcement tools in ensuring full compliance in payment of property rates?
4. Which challenges does Nairobi City County face in property rates collection and enforcement?

1.4 Research Hypothesis

Null hypothesis, H₀:

Improved public services offered by devolved systems of governance is not the most effective enforcement tool in ensuring full compliance in payment of rates in Kenya.

Alternative hypothesis, H_A:

Improved public services offered by devolved systems of governance is the most effective enforcement tool in ensuring full compliance in payment of rates in Kenya.

1.5 The Scope and Area of Study

The study was confined to property rates collection and enforcement. The study was focused on analysis of relationship between property rates collected and total tax liability billed from

2010 to 2015. The study also identified the property rates collection and enforcement tools. Effectiveness of the enforcement tools in ensuring fully compliance in payment of property rates was established. The challenges facing property rates collection and enforcement were established in order in to recommend an appropriate strategy of addressing them.

The study targeted Nairobi City County which hosts Kenya's capital. The study focused on the Westlands, Njiru, Starehe, Makadara, Dagoretti, Embakasi, Kasarani, Langata and Kamukunji sub-counties which are divided into 20 zones. Nairobi City County has the biggest annual budget among the 47 counties in Kenya. Property rates have a great potential in funding this ever increasing budget. The ability of property rates in financing the activities of devolved systems of governance depends on whether or not the rateable property owners are complying fully and promptly in payment.

In addition, the county has the biggest portfolio of rateable property and highest number of rateable property owners. Therefore, Nairobi City County served as an appropriate case study.

1.6 Significance of the Study

The study of property rates collection and enforcement in Kenya is relevant at this time when devolved system of governance is taking shape. All the 47 counties will find this report useful in identifying enforcement tools which are effective in ensuring timely and full compliance in payment of property rates. This comes at a time when most of the counties are struggling with shortage in revenue due to poor tax mobilization. The recommendations will help counties in improving property rates collection and enforcement to boost their domestic revenue base.

The national government of Kenya is making attempts to encourage counties to raise their on domestic revenue in order to improve fiscal autonomy. The study will help the national government support counties in improving property rates collection and enforcement. This will reduce the high level of funds transfer from national to county governments.

The study is expected to contribute to the existing body of knowledge in relation to property rates collection and enforcement. Stakeholders will understand why property rates fluctuates by establishing the effectiveness of collection and enforcement tools.

1.7 Organization of the Study

The research comprises of five chapters. Chapter One contains introductory sections of the study. These sections include introduction, the problem statement, research questions, research

objectives, research hypothesis, the scope and area of study, justification of the study, organization of the study and definition of terms.

Chapter Two entails a review of literature related to property rating in general, collection and enforcement. Tools of property rates collection and enforcement are adequately discussed in this chapter. In addition, literature on challenges facing property rates collection and enforcement globally and in decentralized government in Kenya has been reviewed. The literature was obtained from books, journals, magazines, both published and unpublished reports by various stakeholders in property taxation. The information in this chapter forms a conceptual framework of the study.

Chapter Three covers the research methodology detailing the research design, the population, sample and sampling techniques used. It discusses data collection instruments and procedures. Various variables have been covered in this chapter and information on how the variables have been tested to obtain the information required.

Chapter Four contains data presentation and analysis. The section highlights the methods used in collection and analysis of data. There is presentation and analysis of data collected from various stakeholders in property tax administration through questionnaires. The hypothesis is tested in this section.

Chapter Five has the summary of findings, conclusion and recommendations made based on the results of the findings. Suggestions of areas of further research have been given.

1.8 Definition of Terms

Property Rates	This is an obligatory levy relating to the occupation, improvement or ownership of property (McCluskey, 1991).
Collection Ratio	This is a ratio of collected tax revenue to total tax liability billed for a specific year. This ratio measures the collection efficiency and compliance rate (Kelly, 2000b).
Effectiveness	Ability to produce the desired results in property tax collection and enforcement.
Tax Enforcement:	Process of ensuring compliance with property taxation laws, regulations and rules.
Tax Compliance:	The extent to which taxpayers comply with the taxation law.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter gives review of literature related to property tax collection and enforcement in general. The chapter has a detailed analysis of the principles, concepts and activities involved in property rating. Also, factors that affect property rates collection and enforcement, have been adequately discussed in this chapter. The information in this chapter forms a conceptual framework of the study.

2.1 Overview of Property Tax

Property taxation has been in existence since ancient times, and has served as key source of public finances. Property tax plays a significant role in development of an urban strategy which is the basis of sustainable growth (Ahmad, Brosio and Pöschl, 2014).

2.1.1 Definition Property Tax

Property tax entails obligatory levies relating to the ownership, improvement or occupation of property (McCluskey, 1991). Syagga and Olima (1996) defines property tax as a local charge levied on landed property with or without improvements for revenue collecting purpose. It is an attractive tool for financing local and central governments.

Property tax therefore entails regular levies payable annually at specific rate by owners of improved or unimproved private, communal or public property to decentralized government. Property taxation aims at mobilization of domestic revenue of the local government.

2.1.2 History of Property Rating

The most ancient tax records were in clay tablets form in the Lagash city-state which is currently known as Iraq. They date from about six thousand years B.C. The king used a rotational tax system in which appraisers would concentrate on one area per month (Carlson, 2004).

Property taxation was applied in Egypt, Babylon, Persia, Athens and China. Carlson (2004) notes that the primary emphasis of early property tax was on land and its productivity. Between 2700BC and 2200BC, Chinese dynasties of Hwang Ti and Hsai levied land tax to finance public services offered by the government (Karanja, 2004). Konyimbih (1998) notes that during the Roman Empire and in the ancient Egypt, land tax was levied on agricultural land.

Modern rating can be traced to feudal England. Konyimih (1998) records that The Poor Relief Act (1601) during the reign of Queen Elizabeth I laid foundation of modern rating especially in most of the commonwealth countries. Inhabitants and occupiers of land were required to pay land rate on real and personal property. Personal property was exempted from rates with the introduction of the Poor Rate Exemption Act of 1840 (Karanja, 2004).

Henry George was a great supporter of land tax. He proposed that the community takes the value which is not produced by an individual. This value results from the growth and improvement of the whole community (Konyimih, 1998).

Ricardo proposed taxation of economic rent on land (Karanja, 2004). He argues that increase in land rent is created by society and not from an individual owner's effort. Ricardo insisted that taxing unearned income was justified since this would have no effect on productivity. These discussions led to development of rating systems such as unimproved site value, capital value rating, annual rental value rating and area rating (Karanja, 2004).

In Kenya, rates are levied by local/county government on landed property for mobilization of local revenue. Taxation of landed property in Kenya was introduced during the British colonial rule. Rating in Kenya coincided with the introduction of other policies on land tenure and government structures. Colonial administration created local authorities which were given responsibilities of providing and maintaining public services (Karanja, 2004). Property rates were introduced to finance the activities of local authorities.

Kenya's rating law was based on rating ordinances operational in other colonies especially South Africa. The annual value rating was introduced in Nairobi in 1901 with the enactment of Nairobi Municipality Regulation Ordinance of 1901 (Karanja, 2004). Rating was based on annual property value in Nairobi. This method was abolished in 1920 since only few properties had been developed to warrant taxation on annual value basis (NCC, 1950). The approach was replaced with Unimproved Site Value (USV) rating after enactment of Nairobi (Rating of Unimproved Site Value) Ordinance in 1921 (Karanja, 2004).

In 1928, Local Government Rating Ordinance repealed the Nairobi (Rating of Unimproved Site Value) Ordinance of 1921 (Karanja, 2004). It introduced a uniform rating system countrywide with a free choice of system for local councils. Mombasa introduced Improved Value Rating (IRV) which was discontinued in 1948 after the introduction of Unimproved Site Value (USV) rating.

The first single rating law relating to forms and administration of rating valuation for the whole country was enacted in 1956 (Valuation for Rating Act) which still applies today (Syagga, 2015). In 1964, Rating Act Cap 267 of the Laws of Kenya was enacted to empower local authorities to levy rates on landed property in order to raise local revenue.

2.1.3 Principles of Property Taxation

Taxation policy is designed and implemented in dynamic environments in which institutional, economic, political and cultural variables interact to establish economic consequences of tax instruments and their viability as policy tools (Sepulveda and Vazquez, 2012). There is need to establish accepted criteria for deciding on appropriate tax instruments. Taxation principles are set of accepted criteria used to describe appropriate tax and assess the suitability of alternative tax instruments. The common property taxation principles include following:

a) Principle of Uniformity

Property taxation ought to be proportional in accordance to the ability to pay. In market value-based property taxation system, uniformity may have fiscal benefits (Kamba, 2007). When the tax administration system is efficient, the local economy achieves an optimal combination of the factors of production.

b) Principle of Equity

Equitable property taxation affords fairness in business related to taxable properties. Undertaxed properties are competitive than overtaxed ones which are disadvantaged. Nonetheless, Kamba (2007) notes that property tax incentives characterized with clear difference from the uniformity principle can utilized in subsidizing a certain industry or attract investment.

Principle of equity can be considered in two dimensions: horizontal equity and vertical equity. Horizontal equity entails equal treatment of taxpayers in identical conditions while vertical equity allows for a regressive, proportional or progressive taxation arrangement to ensure that tax payment depends on the ability (Sepulveda and Vazquez, 2012).

c) Principle of Accountability and Transparency

The local governments should be able to account for both for the amount of property taxes paid and the use of government revenues. Taxpayers acceptance is the accumulation of many factors, including benefits received and openness in tax property administration.

d) Principle of Simplicity and Cost Efficiency

Property taxation system ought to be simple. The system should be easy and cost effective to administer. Property taxation system should be easily understood by tax payers. According to Almy (2001), cost-effective property tax administration system entails: fully discovery of all taxable property; valuation and minimization of assessments errors; 100 per cent tax collections; and minimized administration costs. Administration and compliance costs reduce finances available for funding public goods and services (Sepulveda and Vazquez, 2012).

e) Principle of Reliability

Property tax revenue should be consistent. The principle of reliability ensures that a tax system provides for current spending and future revenue needs of the local or county government. Since inception, property tax revenue in developed countries such as USA has been growing significantly. This can be attributed to increasing property values over time.

f) Principle of Revenue Adequacy

Sepulveda and Vazquez (2012) notes that taxation system should be aimed at raising a substantial amount of revenues relative to the local government expenditure needs of a government. Stability of property tax base helps to ensure availability of adequate revenue for the local authorities.

g) Principle of Political Acceptability

The success of a tax administration is greatly influenced by political acceptability. It is impossible to implement a system that is not acceptable to the taxpayers or political class (Sepulveda and Vazquez, 2012). The success of an implemented administration relies on the degree of cooperation of all stakeholders. Lack of cooperation leads to inadequate laws, low voluntary compliance and deficient enforcement.

h) Principle of Minimum Tax Avoidance and Tax Evasion

Property tax administration should aim at minimizing tax avoidance and evasion. It should not induce key, illegal or legal efforts to evade the tax burden (Sepulveda and Vazquez, 2012).

Tax instruments rarely meet all the requirements of these principles. The taxation principles provide guidance on proper tax instruments. Sepulveda and Vazquez (2012) insist that the principles must be evaluated in relation to taxation system to be implemented. An evaluation of property taxation system in relation to the principles lead to different conclusions.

2.1.4 Types of Property Taxation

Land taxation policy is one of the key tools of land use management. Property taxation has various forms including property rates, stamp duty, value added tax (VAT) and estate duty. Property rates on the unimproved site value basis is one of the most common form of rating in Kenya.

Estate duty is imposed on estates of deceased person's wealth (Akumu, 1999). This includes intangible, moveable and immovable property. Basis of estate duty is the market value of the property. In Kenya, estate duty was levied under the Estate Duty Act (chapter 483) which sought to tax validate benefits or inheritance. Estate Duty was discontinued in Kenya in 1984.

Value added tax is generally a consumption tax which is implemented as a destination based tax while stamp duty is an indirect tax levied on legal instruments such incorporation of companies, transfer of chattels, shares, land and landed property, lease, license, mortgage, charge, insurance policy (Akumu, 1999). Under sale of land, the basis of stamp duty is the exchange value of the property. Property rates in Kenya are levied at 2% and 4% for agricultural land and urban land respectively.

In Kenya, the Rating Act empowers local authorities to levy annual property taxes in urban areas. Kamba (2007) argues that property rating encompasses annual local authority tax on property depending on a particular tax rate. Property rates are levied by the county government to meet their liabilities. Levying property rates in the major towns is critical in raising local revenue. Property rating adopts various forms including a rental value rating, improvement rating, area rating and site value rating. Local authorities prefer unimproved site value (USV) rating in Kenya. This can be attributed to the following: USV promotes physical development of land in urban centres; it makes land ownership for speculation purposes to be expensive; it is a simple to administer and ease to determine the amount to be raised thus used in budgeting (Akumu, 1999).

2.1.5 Importance of Property Rating

Property rating is a key source of revenue for devolved systems of governance. Boamah (2013) clearly notes that property rate is the most common, dependable and maintainable a source of income for local authorities globally. It is therefore indispensable for effective operation of fiscal decentralization and financing of public service delivery and local infrastructure provision. Akumu (1999) asserts that property tax revenue can be used to finance public services in urban population which collectively generate economic rent. The revenue is used to

fund public goods and services including road maintenance, garbage collection, street lighting, street cleaning and piped water thus directly leading to increases in property values.

Property rating ensures equality among the urban dwellers. Umar, Kasim and Martin (2012) insist that property taxation ensures that all rateable property owners within a certain category receive equal and rational treatment. Provision for exemptions and fair determination of taxation rate and market value help in ensuring equality. The taxation objectives at devolved government level aims to foster equity, fairness and transparency. The distribution of public services and infrastructural development also aims ensuring equality. Akumu (1999) noted that property rates can be used as a tool of income redistribution in order to reduce disparity between the rich and poor.

Property rating helps in land use management. Akumu (1999) acknowledges that land taxation plays a key role as a strategic policy instrument for economic management in a given area. Land as a factor of production has great significance especially in developing economies. Fiscal control of land use through rating directly impacts the general trend of economic performance.

2.1.6 Basis of Property Rating

Plimmer and McCluskey (2010) noted that there are various tax bases including Land Value (or Unimproved Site Value), Capital Improved Value, Improvements' Value and Annual Rental Value or a combination of any two. Determination of the most appropriate basis of the tax is paramount for an effective and efficient taxation system. Such basis is discussed hereunder:

a) Unimproved Site Value

This entails taxation of land based on unimproved site value. It is applied to countries such as Kenya and Jamaica. Land is taxed to its highest and best use, under the prevailing planning regulations (Plimmer and McCluskey, 2010). This form of taxation encourages owners of land which is under-utilised to maximize its use. Taxation on the basis of unimproved site value encourages optimum use and improvement of land. Intensively use of land leads to less urban dereliction.

b) Improvements' Value

This entails taxation based on the value of improvements only. This avoids the need to find value of the land element. This is applied in countries such as Kosovo and Tanzania. The Urban Authorities (Rating) Act of Tanzania defines rateable property to include all occupied buildings within the jurisdiction of the local authority.

c) Capital Value of Property

This entails taxation based on value of land and improvements (together or separately). Valuation for rating purpose entails valuing the entire property as one followed by application of one rate. On contrary, the land component can be valued separately from the improvements to allow for application of different rates. This is applicable to countries such as Pennsylvania, USA and Grenada. Application of a smaller relative rate of buildings, encourages land owners to develop the land (Plimmer and McCluskey, 2010).

d) Annual Rental Value of Improved Property

This entails taxation based on rental value. Rental value is derived from an analysis of market transactions (Plimmer and McCluskey, 2010). The basis is applicable in Uganda. Kamba (2007) notes that rating system in Uganda requires that the property owner pays for the rates on the basis of annual rental value.

The different kinds of tax base are aimed at achieving different economic or social outcomes (Plimmer and McCluskey, 2010). The bases are therefore selected based on the longterm objectives of the central or local government.

2.1.7 Strengths of Property Rating

Malme and Youngman (2001) noted that appropriate fiscal policies and secured property rights, property taxation can serve as a revenue instrument and as an adjunct to decentralization and privatization. Property rating is considered advantageous over other forms of taxation. Such strengths make it more attractive and they include but limited to:

a) A Sustainable Source of Revenue for Local Government

Since pre-colonial period, local governments have depended on property rates to finance crucial public services. The significance of property rates as a source of revenue for local government is evident globally. For instance, history of property taxation in America can be traced to about 130 years before independence (Brunori, et al, 2006). The limited local government services in USA were adequately financed by property rates. Property rates continues to be the biggest source of income for local government in USA.

b) Reliability and Stability

A sound rating system should be stable and reliable in order to meet its objectives. The stability and reliability of property rates as a source of income for local governments does not need to

be over-emphasized. The base for property rates cannot be moved. This enable the local authorities to budget for public services adequately.

c) Flexibility

Local governments have the powers to adjust the rate of property taxation based on level and costs of public services. In jurisdictions circumstances where property rates collection and enforcement is effective and efficient, property rates is a crucial source of fiscal flexibility. Local government's capability to improve service delivery and modify tax rate is reliant on a flexibility of taxation system. Property rating provides the flexibility and enhances efficiency of local jurisdictions.

d) Compliance and Administration

If properly structured, property rates administration and compliance is quite easy and economical since the tax base (land and/buildings) is fixed. Ratable owners cannot move or hide taxable property. Therefore, property rates is difficult to evade. Property details such as size of land and buildings are easily established while values change with time.

Brunori, et al (2006) assert that ratable property acts like security for the tax obligation. The tax administrator have powers to place a caveat on a property with outstanding tax. The property cannot be sold or mortgaged before the caveat is removed. Alternatively, the property can be sold to recover the rates, interests, and penalties (Brunori, et al, 2006).

At a compliance rate 96 per cent per annum, property rates administration in USA is rated among the most efficient forms of tax in terms (Shuford and Young 2000).

e) A Benefits Tax

The attractiveness of property rating is attributed to the fact that the revenue is raised to facilitate provision of local public services. There is clear link between the source of money and services being offered. Property owners benefit directly from this services. Services provision leads to increase in property values resulting to more taxation revenue.

2.2 Property Rates Administration

Proper property rates administration impacts on local government's revenue collection and affects its equity and efficiency (Bird and Slack, 2002). Pitiabile administration of rates is an obstacle to executing the property rating. Devolved governments in developing economies have

insufficient capacity to administer the property rates. Manual property rates administration results into exclusion of rateable properties, low collection ratio and ineffective enforcement.

Syagga (2015) notes that property tax administration aims at setting and achieving sustainable tax base and various ratios (tax, valuation, coverage and collection ratios. The performance of taxation system is dependent on good governance by the rating authority, political will and public acceptability for property taxation (Syagga, 2015).

Administration of property rates entails various functions including: base tax determination and property identification; tax assessment and appeals; collection and enforcement; and public service provision.

Tax base determines the distribution of tax burden among the tax payers (Kelly, 2000). Tax base weight based on value or area influence how the burden is distributed among rateable property owners. Kamba (2007) defines tax rate as the rate struck by rating administrators which measures the tax amount in relation to property value. Under an area rating system, tax rate is the amount per unit. The tax rate is determined through an annual budgeting process. Property identification utilizes fiscal cadastre which contains property description, boundary definition, ownership and property value. It is important to establish a comprehensive property inventory and assign a unique identification number to each property. This enables tracing of all property and allows for integration of key functions of rates administration (assessment, billing and receipting (Bird and Slack, 2002).

Tax assessment entails determination of amount of tax to be levied. It establishes the general tax level and affects tax burden distribution through different effective tax rates (Kelly, 2000). Bird and Slack (2002) insist that basing property taxes on uniform assessments ensures fair sharing of costs for public services offered by local government. In Kenya rates assessment process is highlighted in Valuation for Rating Act, Chapter 266. The assessment process produces a draft valuation roll.

Property rates administration system should allow for a room to appeal the assessment results if the rateable property owners doubt them. In general, appeal process entails review by the particular office to address genuine errors and inconsistencies (Bird and Slack, 2002). Failure to resolve the differences necessitates involvement of valuation court or review board comprising experts in valuation. Article 19 of Valuation for Rating Act, in Kenya, provides that for the appeal process to be followed if one has an objection regarding the valuation roll. Chairperson of the court or review board endorses draft valuation or supplementary valuation

roll. He or she then signs a certificate to that effect once all objections are heard and determined. Once signed, the draft valuation roll becomes be the valuation roll for the jurisdiction.

Rates collection entails issuance of tax bills, collection of property rates and enforcement to ensure full compliance (Bird and Slack, 2002). Rates enforcement against non-compliance determines the amount of revenue to be collected (Kelly, 2000). Enforcement of property rates entails giving incentives or using punitive measures to ensure prompt and full compliance. On one hand, incentives to encourage rateable property owners to comply include provision of public services and interest free periods at the beginning of the year. On the other hand, punitive measures include interests and penalties for delayed payment, seeking redress in courts of law and sanctions. Weak enforcement and insufficient capacity for property tax administration lead to high tax arrears.

Provision of public service to benefit the taxpayer is the last stage of property rates administration. Tax payers should be educated on role of property rates in financing public service. Provision of public service is linked to collection ratio. Kelly (2000) notes that good taxpayer service leads to higher property rates collection ratio.

2.2.1 Salient Features of an Effective Property Rates Administration System

Property rates administration ought to reflect data entry, assessment process, billing and collection roles. An appropriate property rates administration system should have the following features:

a) Ensure Equity

The system should ensure that taxpayers are equally treated. Inequality in rates administration leads political interference which leads to ineffectiveness and inefficiency. Once the legislation for taxation system has been approved, the administration should ensure equity to avoid drawing political attention (Plimmer and McCluskey, 2010). Transparency and quality control in assessment, billing and collection of property tax ensures confidence.

b) Ensure Confidentiality

Automation of property rating minimizes access to private and confidential details by administration staff. Information regarding ratable property and the owners is in most cases treated as confidential by the parties concerned. An efficient and effective tax administration system should thus ensure that local authority staff minimize access to private and confidential information.

c) Adoption of Computer-Assisted Mass Appraisal (CAMA) Techniques

Property rating administration system should adopt CAMA technique to ensure efficiency and effectiveness. Valuation for rating should be linked to other national government departments including land registration and surveying. The linkage avoids any suspicion of a conflict of interest from the administrators. CAMA technique ensures independence of the rating system. In addition CAMA ensures accuracy, safety of data and transparency.

d) Ensure Cost-effectiveness

Cost effectiveness is a key requirement for any rates administration system. Cost effectiveness is achieved by ensuring that the system is efficiency. It ensures that an optimum amount of the income from property taxation is spent on provision of public services. Local authorities that extent to a larger area incur less costs of administration as a result of economies of scale.

2.3 Property Rates Collection

Tax collection entails preparation, issuance of tax bills, collection of property rates and ensuring payment (Bird and Slack, 2002). The billing system aims to fulfil the rating authority's legal obligation of notifying the taxpayers of their liability Property rates collection is measured in terms of Collection/Compliance Ratio (CR). Kamba (2007) defines Collection Ratio as the rating income collected from property rates in relation to the total amount invoiced in a given year. Collection Ratio ascertains the efficiency of collection and the extent of compliance in payment of rates. Property rating aims at financing the budget of provision of public services. The Collection Ratio should therefore be 100 per cent indicating fully compliance in order to finance the projected budget adequately. Failure to collect part of the billed rates result into constraints in financing public services.

Kelly (2000b) asserts that Collection Ratio is determined by enforcement policy in place. The performance of rates administration depends on effectiveness of billing and collection. Most property rating reforms focus on discovery and valuation system while overlooking collection aspect of property rates administration system (Kamba, 2007). For the rating system to improve in local revenue mobilization, the billing and collection systems should be critically evaluated.

2.3.1 Methods and Players of Property Rates Collection

Property rates collection by local government itself is the most common method. According to Kelly (2013b), the best practice entails allowing the local government to be responsible for

collecting all property taxes that are due for a particular year. Thereafter, collection agencies or lawyers can be contracted to take legal action for recovery of the outstanding accounts.

Secondly, property rates can be collected by private sector. UN-HABITAT (2011) notes that countries such as Uganda and Pakistan engage the private sector to help in rates collection and enforcement. Tax collection contracts entail a lump sum payment via bidding. The winner remits the contracted amount and keeps any extra amounts collected (Kelly, 2013b). Private collectors are more effective in ensuring fully compliance. This is attributed to stronger personal interest in collection result and more effective mechanism for penalizing poor performance by collector (Fjeldstat, Katera and Ngalewa, 2008).

Alternatively, property rates can be collected by neighbourhood organizations, urban neighbourhood governments and village or traditional leaders. Kelly (2013b) notes that some countries such as Paraguay engage neighbourhood organizations in property tax collection. In Philippines, urban neighbourhood governments are engaged in tax collection while Indonesia, Sudan and Ghana involve village or traditional leaders to encourage tax compliance. Collection incentives such as sharing revenue and retaining part of the collected has been employed to mobilize active support in Kenya. For instance, over the years, Karengata Resident Association has been collecting and depositing land rates from members in a Nairobi City Council - Karengata Association escrow account which was jointly operated. This was because the city council was not providing public services in Karen and Langata. However, this changed from September 2015 when the High Court ruled that all land rates should be submitted to Nairobi City County since it is providing relevant public services to the residents.

A comprehensive collection and enforcement strategy is required in order to achieve optimum tax collection ratio. Voluntary compliance can be achieved through various incentives, penalties, sanctions and essential political support. Implementation of reforms in property tax administration requires strong political support, legislative framework, institutional capacity, technical assistance, financial and qualified personnel (Kelly, 2013b).

2.3.2 Collection Ratio and Penalties

The Rating Act in Kenya empowers the rating authorities to levy rates annual. They are payable on 1st January annually. A remission of 5% for any payments made before due date but charge a penalty of 1% per month on any outstanding amount after the due date until paid in full. However, rateable property owners in Nairobi have a three month interest free period running from 1st January to 31st March. Consequently, annual rates are payable on or before 31st March of every year in Nairobi City County and the arrears attract 3% interest per month.

Any outstanding amount (tax and interest) after the due date is charged against title to the landed property on which the rate was levied upon. Properties with outstanding rates are restricted from transaction by way of sale or lease.

2.3.3 Property Rates Collection Model

Sepulveda and Vazquez (2012) summarizes property rates collection (TC) in the following formulae:-

$$TC = (TC \div TL) \times (TL \div TAV) \times (TAV \div TMV) \times (TMV \div MV) \times MV$$

Where

TL - the property tax liability,

TAV - taxable assessed value,

TMV- taxable market value,

MV - full market value.

Property rates collections ratio (CR) is the ratio of actual rates collections to tax liability,

$$CR = TC \div TL$$

If TC is equal to TL, collection ratio becomes 100 percent. In most cases, collection ratio is normally less than one hundred per cent. Collection ratio helps in establishing extent of the compliance with property rating law and the property rates enforcement ability of the authorities (Sepulveda and Vazquez, 2012). Poor property rates collection ratio is associated with failure of rates authorities to effectively enforce the rating law and failure by rateable property owners to comply.

Due to poor enforcement, property rates collection ratio in developing countries ranges between 20% and 50% (Bahl and Vazquez (2008; Sepulveda and Vazquez, 2012).

2.3.4 Factors Affecting Property Rates Collection Ratio

Property rates collection ratio entails the actual amount of rates collected by the rating authority vis-à-vis the invoiced amount (UN-HABITAT, 2011). Property rates collection ratio indicates the extent of compliance to the tax law. Level of compliance to property taxation regulations differs as a result of distortions created by the conduct of administrators or rateable property owners (Sepulveda and Vazquez, 2012). On the government side, distortions result from

deficient enforcement of property taxation law (DE) and presence of corruption (C). On the taxpayers' side, distortions result from tax evasion (E) and tax morale (TM).

a) Deficient Enforcement of Property Taxation Law (DE)

Deficient enforcement (DE) results from inability and unwillingness to of rating authorities to capture the maximum rating income potential (Sepulveda and Vazquez, 2012). Effective enforcement of tax law by the tax authorities leads to improved collection ratio. Property rating law should incorporate necessary measures to ensure timely payment of tax.

b) Corruption (C)

Corruption is corrosive in any government's revenue system since it diminishes actual income collected, weakens public trust and eventually compromises government's legitimacy (UN-HABITAT, 2011). Corrupt rates administrators end up taking a share of revenues collected leading to poor collection ratio. Corruption may also discourage taxpayers from paying the outstanding rates.

c) Tax Evasion (E)

Tax evasion entails any illegal form of taxpayers' non-compliance. Generally, taxpayers evade in consideration of the probability of reviewing and discovery, cost of enforcement and penalties of non-compliance (Sepulveda and Vazquez, 2012). However, properties cannot hidden from the tax authorities given their immovable nature. Consequently, property rates evasion only takes place in certain circumstances such rateable owners lying in order to be exempted from tax payment.

Tax evasion is determined by various factors including level of enforcement, penalties and corruption (Sepulveda and Vazquez, 2012). Deficient enforcement (DE) and rampant corruption (C) in tax administration system encourages tax evasion. High penalties (P) and proper enforcement discourages tax evasion.

d) Tax Morale (TM)

Sepulveda and Vazquez (2012) argues that the concept of tax morale among taxpayers accounts for the voluntarily compliance with the tax law regardless of level of enforcement. According to study conducted in United States and Turkey by Torgler and Schaffner (2007), tax compliance has a direct relationship with tax morale. The study established that positive attitude towards rating authority and system significantly increase tax morale which improves compliance leading to high collection ratio.

Responsiveness of tax authorities to the preferences of the taxpayers increases tax morale among taxpayers. On contrary, perception of corruption in tax administration system has a negative effect on tax morale (Sepulveda and Vazquez, 2012). Tax morale is therefore dependent on corruption (C) and government responsiveness (R).

$$TM = f(C, R)$$

Tax evasion (E) is directly related to deficient enforcement. It is inversely related to the penalties (P) and tax morale (TM).

$$E = f\{DE, P, TM(C, R)\}$$

Tax collection ratio (TCR) is therefore a function of deficient enforcement, corruption, penalties for tax evasion and government responsiveness.

$$TCR = f(DE, C, P, R)$$

In conclusion, the property tax collection ratio largely depends on taxation law and tax authorities. Legal and administration framework of taxation system play a crucial role in tax collection as opposed to taxpayers.

2.3.5 Challenges Facing Property Rates Collection

One of the biggest challenges facing policy makers globally is to preserve property rating as an important revenue source while offsetting its regressivity (UN-HABITAT, 2011). This has led to a decline in the popularity of the property rating and a disconnect between property rates bills and rateable owners' ability to pay.

a) Negative Attitude of the Public Towards Property Rates and Rates Officials

Brunori, et al (2006) argues that property rates obligation is prompted by an involuntary act of taxpayer. Regardless of the whether the property earns extra income, the property owners have to pay annual rates. Negative cultural attitude including expectation of free services from the government hinders property tax collection (Barako and Shibia, 2015). Boamah (2013) established that rateable property owners who have positive attitude about rating officials are more likely to comply.

b) Outdated or Incomplete Fiscal Cadastre

Ahmad, Brosio and Pöschl (2014) define cadaster to entail a public property registry showing ownership, tenure rights, situation, property features, value and use. A cadaster provides the

taxation basis. Kelly (2013) cites outdated or incomplete fiscal cadastre as a key hindrance to efficient and effective property tax productivity in developing countries. Cases of insufficient property information are rampant in developing countries in which most of relevant details have not been recorded or captured. Ahmad, Brosio and Pöschl (2014) noted that cadastral updates are expensive because of the required tools, highly skilled personnel and technology. fieldwork, surveys, valuation, and organized record-keeping. This can only be achieved with sophisticated tools, technology, and know-how, yet most local governments do not have the technical or human capacity.

c) Inadequate Capacity

Inadequate capacities of devolved governments to handle property rates related information is among the hindrances facing property tax collection. These include information on registration for the property tax; valuations, bills for property tax, collection and enforcement (Ahmad, Brosio and Pöschl, 2014). Some of the sub-national government have inadequate capacity to fully execute property tax administration function starting from tax registration to collection and enforcement. Understaffed tax administration system may not be able to accomplish its mandate.

d) Unfair Administration

In some scenarios, authorities levy different tax burdens on properties which are similarly situated leading to suspicion. Inconsistencies between assessed and actual market value leads unfairness in property tax administration. Values of ratable properties are exaggerated for tax purposes because of failure by local authorities to meet statutory requirements of maintaining updated market values regular revaluation (Brunori, et al, 2006). Unfair administration of property tax may lead to poor collection from rateable owners.

e) Shifting Burdens

Local and national governments tend to give tax incentives to investors as a way of attracting investments. Property tax incentives involving large parcels of land ends up shifting the rates payment liability from large business entities to local jurisdictions. The burden of paying tax is left to small business entities and homeowners. This results into increased amount of rates payable by ratable home owners (Brunori, et al, 2006). Unfortunately, in most cases increased tax liability is not accompanied by improvement in service provision.

f) Public Unhappiness

Brunori et al (2006) attributes property tax revolutions of 1970s and 1980s in USA to public discontentment. The revolution led to substantial statutory and constitutional restrictions on the property tax. Public discontentment leads to poor tax payment resulting to lower collection ratio. If the tax payers lack faith in how the revenues are utilized, defaulting cases increases leading to poor collection (Barako and Shibia, 2015). Pitiably service delivery and rampant corruption negatively affects tax payers perception leading to resistance incidences (Kelly, 2013). Clarity and transparency in tax collection and usage in raising tax payers' confidence leading to high level of compliance with the taxation system (UN-HABITAT, 2011). Misuse of collected revenue and absence of basic infrastructure are cited in Boamah (2013) as the main causes of dislike of property rates by rateable property owners.

g) Poor Enforcement Measures

The law allows the rating authority to take measures to ensure that outstanding taxes are paid accordingly. Enforcement measures differ depending on the country and property taxation legal framework. This include penalties for defaulters and seeking legal redress through courts. Poor enforcement measures of property taxation system leads to poor collection (Kelly, 2013). As Boamah (2013) rightly argues, low compliance is caused by poor enforcement.

h) Complexities in Understanding Tax System and Payment Procedures

Kelly (2013) notes that difficulties in understanding rating system and tax payment procedures also hinder effective property rates collection. The penalties for defaulting in tax payment ought to be easily understandable and implementable (Syagga, 2015). The rating system and payment procedures should be easily understood to enable rateable property owners pay the due taxes.

i) Lack of Political Goodwill

Property rating attracts much public attention. This makes politicians to advocate for reduction in property tax. Politicians mostly take a negative view of property taxation thus end up designing policies that limit property tax (Brunori et al, 2006). Wealthy individuals who have political influence own the rateable properties thus manipulating tax administration system despite having outstanding property taxes. Politicians often promise to free the electorate's property tax burden in their effort to be elected (Ahmad, Brosio and Pöschl, 2014). Without political will, taxation administrators tend to be reluctant in pursuing tax evaders while courts end up hesitating the imposition of sanctions against defaulters (UN-HABITAT, 2011).

Ahmad, Brosio and Pöschl (2014) argue that local tax collection efforts are by receipt of huge intergovernmental transfers, easily acquired credit from financial markets; transfer of liabilities to the next administration by failure to acknowledge the rates liabilities until they are completely settled.

2.4 Legal Rating Framework in Kenya

This is outlined in Valuation for Rating Act, the Rating Act, and Constitution of Kenya (2010).

a) Valuation for Rating Act (1956)

Valuation for Rating Act highlights the procedure for preparing valuation rolls and supplementary valuation rolls. Valuation for Rating Act, Article 6, outlines the contents of valuation and supplementary rolls to include property description, location, size, ownership details, property value and the value of the unimproved land.

b) The Rating Act, Chapter 267, (1964)

The Rating Act was enacted to entitle and empower local authorities (city, municipal and county governments) to levy taxes on landed property in order to meet the rating authority's liabilities or establish a general reserve fund. The act allows local authorities to project the expenditures on public services and mobilize the funds from property rates.

In Kenya, property rating adopts two forms (Article 4 of the Rating Act). They include an area rating and agricultural rental value rating. Area rating can be done based on a flat rate, a graduated rate, a differential flat rate, an industrial rate or a residential rate.

The county government are empowered to impose a rate on the unimproved land value for each financial year as provided by valuation roll. The county government can also impose based on combination of site value rate and the assessment for improvement rate. However, this should not exceed 4.0% of the unimproved land value. Any rating authority is restricted from adopting more than one form of rating. The National Land Commission's approval is required to the rating form to be adopted (Government of Kenya, Revised in 2010).

Article 17 of the Rating Act provides that in case of defaulting in payments, the county may cause a written demand to the rateable owner to settle the outstanding rates within fourteen days after service. Default in payment necessitates the county to seek redress in courts of law.

Article 18 of the Rating Act allows the county to recover outstanding tax arrears and interest directly from tenants or occupiers.

Rates and interest due are charged against the subject land (Article 19 of the Rating Act). Article 20 of the Rating Act states that the ratable owner of the property is directly liable for rates payment.

c) Constitution of Kenya (2010)

Under the Constitution of Kenya (2010), Article 209 (3) (a), property tax has also been reserved for the county governments. The assessment for land taxation is responsibility of National Land Commission as stated in Article 67(2) (g) of Constitution of Kenya (2010).

d) The Land Value Index (Amendment) Bill, 2016

The proposed legislation seeks to standardise and harmonize land values in Kenya for the purpose of determination of land rates, land rent, stamp duty and compensation of land acquired by the government for public use. If enacted, this law will make land rent, land rates, stamp duty and compensation predictable, coherent and independent from subjective valuations.

e) Nairobi City County Finance Act (2015)

Nairobi City County Finance Act was enacted on 20th November, 2015 and came into effect on 1st March, 2016. The act provides for taxes such property rates and other fees meant to raise local revenue for Nairobi City County government. The act provides for a rate of 34% of Unimproved Site Value of land as it appears in 1982 Valuation Roll apart from of a few areas (Kamuthi Farmers, Buru Farmers, Jua Kali-Kahawa West, Kamulu, Kamae, Ngundu Farmers, Giathieko, Embakasi Ranching, Githurai, Mihango, Drumvale Company, Ruai, areas Adjoining JKIA and Dagoretti Division) having plots 0.1 Ha to 0.2 Ha which are rated at flat rates varying from a low of Kshs. 1,280.00 to a high of Kshs. 2,400.00 per plot as itemized in Table 2.1.

Table 2.1: Land Rates in Nairobi City County

Private & Public Valuation plots			
Residential plots	USV		34%
Commercial plots	USV		34%
Agricultural plots	USV		34%
ABOVE CHARGES OR 0.12% OF NEW USV			
(NB: USV means "Unimproved Site Value")			
Flat Rated Plots			
Plots size below 0.1Ha.	Plot		1,280
Plots size 0.1Ha - 0.2Ha.	Plot		1,600
Plots size 0.2Ha.- 0.4Ha.	Plot		2,000
Plots size above 0.4Ha.	Plot		2,400
NB: Rates administrative charge Kshs. 50,000			

Source: Nairobi City County Finance Act (2015)

2.5 Property Rates Reform in Kenya

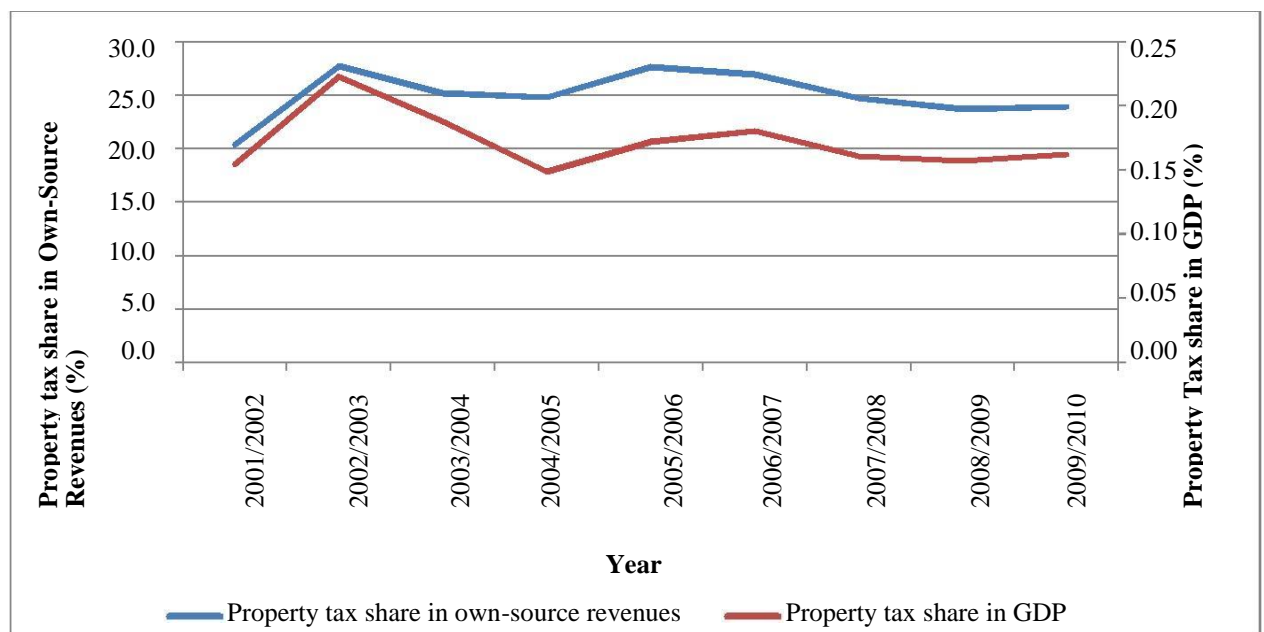
An evaluation of the lawful basis for the property rates by Kelly (2002) indicated there is no legal constraints to improvements of property rates collections in Kenya. Pathetic administration and lack of political will are the main problems facing property taxation. The available legislations provide for flexibility in property taxation base definitions, taxation rate structures, valuation procedures and techniques, assessment, billing, collection and enforcement (Kelly, 2002).

The reform strategy in property taxation under the Kenya Local Government Reform Programme (KLGRP) was designed to address collection and enforcement systems in administrative reform. The reforms also aimed at mobilizing of political will. Kelly (2002) insist that consideration of ensuring complete coverage and improved valuation roll should only be done after remarkable progress is noted on collection and enforcement.

Property tax management system was included in Integrated Financial Management System (IFMS) to improve on administration and ensure effectiveness. Basic administration management of the property rates system was designed to link the basic revenue administrative component with other revenue sources Property tax administration entails database maintenance, rates' assessment, billing, rates collection, enforcement and public service. The linkage of various systems provides for consistency and simplicity.

Integrated Financial Management System (IFMS) was initially introduced and field tested in 1999 in Mavoko and Nyeri Municipal Councils. Property rates administrative improvements were incorporated into the IFMS. Developing a property rates module within IFMS was meant to improve administrative procedures in order to achieve higher collection ratio. However, trends in performance of property rates between 2001 and 2010 as illustrated in Figure 2.1 indicate a general decline in performance (Barako and Shibia, 2015). This is an indication that the reforms did not yield the expected results.

Figure 2.1: Contribution of Property Rates Share in Own-Source Revenues and GDP



Source: Barako and Shibia (2015)

2.6 Property Rates Enforcement Tools

In order to ensure compliance to property rates regulations and optimum collection ratio, the administration system should focus on encouraging voluntary compliance (Kelly, 2013b). This can be done by providing rates payment incentives. To ensure optimum tax collection ratio, maximum and timely property tax payment is paramount. This can be achieved through the following tools or strategies:

a) Improved Public Services Offered by Local Government

The importance of linking property rates revenue collection to provision of public services does not need to be over-emphasized. Ahmad, Brosio and Pöschl (2014) highlighted that the establishing a link between property rates and public service provision works more effectively for devolved government than for central governments. Property rating can easily be linked to

a specific local government's service (Kelly, 2013b). Rateable property owners ought to get a clear understanding of the property rating role as a benefit tax directly related to infrastructure and services provision.

b) Training on Property Rates Structure

Provision of information on the property rates structure through taxpayers' education programs can help in ensuring compliance and improving the collection ratio. Trainings should incorporate various aspects of rating administration system (Kelly, 2013b). These trainings can help in lowering compliance costs and encourage voluntary tax compliance.

c) Reducing Compliance Costs

Lower compliance costs can be achieved by providing a simplified and easily accessible payment system (Kelly, 2013b). Reduction in administrative and compliance costs can be achieved by providing multiple and convenient options for rates payment (Kelly, 2013b). Countries such as Greece, El Salvador, South Africa have linked the property rates to the payment of utilities such as electricity and water to ensure collection and enforcement.

d) Social Pressure

Social pressure can be used as a tool of encouraging compliance in property rates payment. On one hand, countries such Philippines and Indonesia publicly acknowledges exceptional compliant rateable property owners by publishing their names. On the other hand, countries such as Kenya, Malawi and Tanzania publishes the names of the delinquent taxpayers as a form of negative publicity (Kelly, 2013b).

e) Provision of Discounts and Waivers on Property Rates Interest

Provision of discounts helps in achieving voluntary property rates compliance. Discounts can be given to rateable owners who make timely and complete payments. Countries such as Philippines, Barbados and Ecuador offer discounts for prompt and complete payments to encourage compliance (Kelly, 2013b). Provision of waivers for accumulated interest on outstanding property rates can also be used as a tool of ensuring compliance. This is applied in most of the counties in Kenya. Some counties offer as high as 100 percent waiver on accumulated interests for rateable owners who clear their arrears within the stipulated time.

f) Sanctions and Penalties

Sanctions and penalties are a form of stringent enforcement measure of ensuring prompt property rates payment. Sanctions and penalties take various forms including imposition of penalties for late payment, interest payments for outstanding property rates and censorship of public services (such building permits, title registration, business licensing and suspension of utilities) (Kelly, 2013b). Voluntary compliance to avoid sanctions and penalties can be achieved through strict enforcement against non-compliance. Countries such as Kenya, Bahamas and Indonesia imposes payment penalties for late payment to boost compliance by amassing the non-compliance costs. Kelly (2013b) proposes that government policies should make property tax interest payments to be done together with the key taxes including income taxes.

h) Operational Tax Debt Recovery

Operational tax debt recovery helps in enforcement of late payment and interest penalties. Countries such as Philippines, Indonesia, US, Canada and Chile secure legal debt recovery through civil proceedings, garnering rents from the rateable property, seizure and sale of properties (Kelly, 2013b). This tool is the last resort employed by local authorities.

The extent of enforcement greatly affects property collection ratio. For instance in North America, collection ratio of close to 100 percent is achieved through property seizure and auctions to enforce compliance (Kelly, 2013b). On contrary, developing countries rarely employ seizure and auctions as tools for enforcement leading to poor collection. Implementation of enforcement measures requires strong political will and technical capacity.

2.7 Property Rating in Different Countries

In spite of the generally acknowledged potential of property rates in developing countries, their current contribution in local revenue base remains meagre. To improve the performance of property rates in developing countries, we review rating reforms in Indonesia and examine its Contribution in USA.

a) Indonesia

Kelly (2003) noted that Indonesia's 1986 property tax transformation is one of the most successful reforms globally. The reform led to simplified basic tax policy, introduction of innovative administrative reforms and generation of increased revenue.

Property tax in Indonesia dates back to before the 1600s. Before the Dutch colonial

period, peasant farmers in Indonesia were paying a tribute to the landed aristocracy. Property taxation was systematized following Dutch colonization in the early 17th century. Systematization turned property taxation to become the dominant source of revenue for the colonial government.

The first individual property taxes in Indonesia occurred between 1923 and 1928. Introduction of the taxation system was mainly designed for the urban areas. The property tax system moved from being a land rent to being land tax based on agricultural productivity during the Japanese occupation in the 1940s (Kelly, 2003).

After Independence, property tax was initially replaced with a land income tax. Land income tax was unsuccessful leading to reintroduction of a Land Output Tax. This was assessed at 5 percent of net land value, reserved to local authorities for rural development projects.

Contribution for Regional Development System was initiated in 1965, after consolidating various property-related taxes. This system combined the rural output tax, individual property rates on improved and unimproved land. By then, property rating administration was characterized by low collection ratio (less than 60 percent); huge variations by property type and location; outdated property tax information; low property valuations (less than true market value) and inconsistent among properties (Kelly, 2003).

The rates administration system had equity, efficiency and administrative problems caused by low revenue collection rates, incomplete fiscal cadastre data and inconsistent valuations. The Indonesian government came up property rates reforms between 1986 and 2001 to address the problems associated with administration system. One of the achievements associated with the reforms is the collection-led strategy. The strategy entailed introduction of a payment point collection system known as SISTEP which was tested in 1989 and afterwards replicated all over Indonesia by 1992 (Kelly, 2003). SISTEP system streamlined tax collection, reduced compliance and administration costs. It also provided effective enforcement tools. Consequently, Indonesia witnessed significant improvement in collection efficiency from an average of 65 percent to 79 percent in the first year of implementation (Kelly, 2003). The new collection system enabled more effective enforcement against non-compliance and accounting for the receipts.

Kelly (2003) identified various factors that led to success of property rating reform from

1986-2001. They include the following:

The Indonesian government organized a strong political, management and operational support. It was achieved by connecting the property tax reform component to the drive of the comprehensive tax reform of 1984. The robust political leadership behind the larger tax reform aided in the enactment of the new legislation. This was meant to support, commence and sustain the necessary administrative reforms.

Secondly, the reforms were initiated on an established tax culture. There was a clearly recognized property tax tradition among taxpayers and the tax administrators. The reform was anchored on tax tradition. The policy framework was simplified and effectively linked with administration. A collection-led implementation strategy ensured effectiveness and efficiency.

Besides focussing on tax policy changes, the reforms introduced major administration improvements in taxpayer service; reduced costs of administrative and compliance; improved equity in rating and better revenue mobilization. Computer-Assisted Property Tax Administrative Management System (SISMIOP) was used to integrate and improve tax administration functions. Improved and institutionalized systems and procedures provided sustainable reform framework. The government later modified SISMIOP to ensure a more internet friendly and automated tax administration system. Mapping and other GIS components were also incorporated in the system.

Innovative property changes in tax administration were designed and gradually introduced in order to test the procedures practically. The government was therefore able use the limited human resources and receive feedback regarding the new system and procedures. After being found to be effective, the SISTEP and SISMIOP systems and procedures were progressively adapted and replicated countrywide. The reforms provided framework for slight policy adjustments and technological improvement.

Development of administrative procedures, taxation systems and technological applications was in consideration the available institutional capacity aimed at facilitating the implementation. Even though capacity development programs were gradually introduced, reforms were initially designed to match the prevailing administrative capacity. This was made with the intention of evolving the administration systems in line with development of capacity.

b) United States of America

Property rating in American was administered by early colonies to support the government. Property rating was facilitated by the adoption of the first revenue laws in 1638 which required everyone to pay property rates to colonial local government according to their estate. The entire country was rated and all settlers in the colony were obligated to pay property tax in based on property market value (Brunori, et al, 2006)

In the Massachusetts Bay Colony, taxable property included real estate, personal property and stock in trade. The rate applied on taxable property was based on the spending needs of colonial governments. Different rates were applied to assessed property by the different levels of Massachusetts government.

The problem of inadequate assessment of property was experienced because state governments were unwilling or unable assess. Cases of widespread tax evasion and avoidance were noted in America due to the taxation system. Some colonists began hiding taxable assets. Property owners also began lobbying valuers for lower valuations for rating purpose. The effective tax rates on real estate were less than 1.0% due to low levels of government expenses.

United States of America was preparing for a potential war with France in 1798. A direct tax on real estate was approved by the Federalist Congress to raise revenue for a larger navy. This land tax was collected until 1802 then suspended by the president elect Thomas Jefferson.

Federal government reintroduced property tax to finance the 1812 War. The war significantly affected trade leading to reduced customs revenue. A direct tax on property was again approved in 1813 which was administered by the states. At the end of the conflicts with Britain, the direct property tax was abolished.

The final property taxation attempt occurred in the course of the Civil War. Congress enacted a new legislation on revenue in 1861 which included a countrywide income and real estate taxation. Wallis (2000) notes that \$20 million was mobilized from the Civil War land tax. At the end of the war, the law expired.

All states were imposing a general property rate by the end of 19th Century. This tax dominated state public finance during this period. Brunori, et al (2006) notes that property tax was the greatest source of public finance at 45 per cent in 1902.

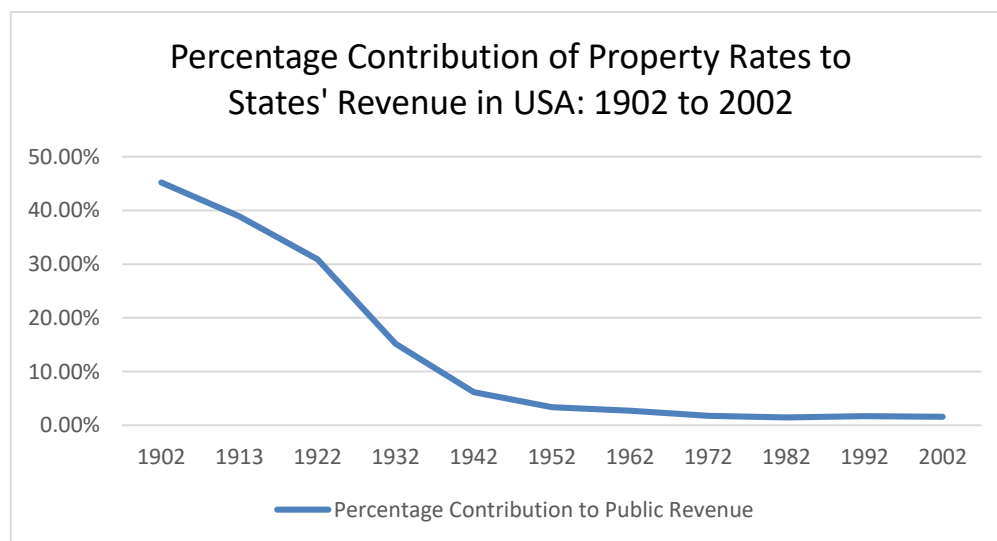
Despite its supremacy in public finance, the general property rating was facing challenges. Politicians and finance experts noticed that property rating was not working properly in a fast

changing economy. Its demise was therefore inevitable. Secondly, issues such as distinguishing between a property as legal term and economic concept of wealth were could not be addressed by general property rating. Also, valuers were unable or unwilling to appraise their neighbour's personal property accurately. General property rating faced overwhelming enforcement problems mainly because of tax avoidance through hiding personal property.

Various sorts of property were exempted making property taxation to be focused on real estate. The Great Depression led to demise property tax which had been under pressure from the beginning of 20th Century.

The Great Depression effectively ended states' dependence on property rates in general. Property rates' revenue fell drastically in 1929 when the economy was depressed. The consequential fall in property rating revenue forced the states to find other sources of income such as transfers and income taxation. Reliance of states on property rates has been diminishing over the years from a high of 45.2% in 1902 to a low of 1.6% in 2002 as shown in Figure 2.2.

Figure 2.2: Contribution of Property Rates to State Revenue in USA

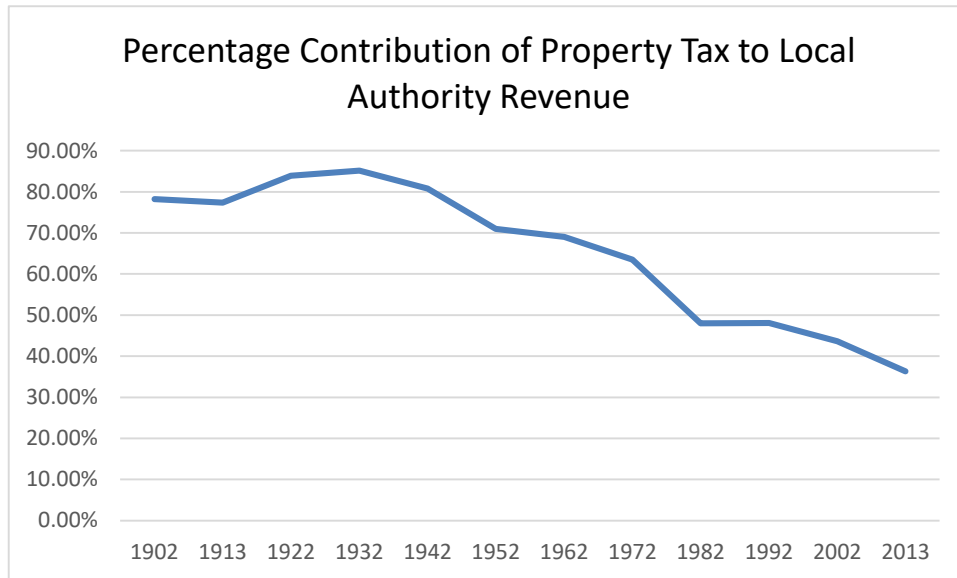


Source: Analysis of Data from Brunori, et al (2006)

Currently, the biggest portion of local authority revenue is from individual income taxes, payroll taxes and corporate income tax.

The aftermath of Great Depression in USA and Second World War was characteristics by dominance of property rates in local revenue generation (Brunori, et al, 2006). The property rates contribution to local authority revenue has been significant throughout the history of USA as shown in Figure 2.3.

Figure 2.3: Property Rates Contribution to Local Authority Revenue in USA



Source: Analysis of Data from Brunori, et al (2006) and State & US Census Bureau (2013).

Despite decline in its significance, property rates remains the biggest single contributor of local government revenue. With rapid growth in real estate values across USA, revenue form property rating increased substantially. However, because of the growth in expenditures, property rates have not grown in proportion to the local government tax income.

On contrary, percentage contribution of property tax in financing local government continue to decline as a result of reliance on other revenue sources including taxes on sales and improved intergovernmental aid (Brunori, et al, 2006).

2.8 Conceptual Framework

Akinwunmi (2009) argues that a conceptual model entails a diagrammatic presentation meant to describe the fundamentals of a theoretical base. Alternatively, a model can be used to describe relationship between variables illustrated graphically (Daresh and Playko, 1995). A model helps in understanding a complex relationship between variables.

Property rates administration involves various functions including: rateable property identification, base tax determination, tax assessment, appeals from assessment; determination of payable rates (product of tax rate and assessed value), collection, enforcement and public service provision. Rates collection entails preparation and issuance of rates' bills, collection of property rates and ensuring compliance. The amount of revenue collected depends on property rates enforcement against non-compliance.

As explained in section 2.6 and illustrated in Figure 2.4, a mathematical model of property rates enforcement is built by the inter-relationships of tools which ensure full compliance. Local governments advocate for full compliance in property rates payment in order to raise the projected revenue required in provision of public services. In order to achieve high collection ratio, the administrators should work to ensure that rateable property owners comply by making full and prompt payment of the amount due. This is achieved through various enforcement tools.

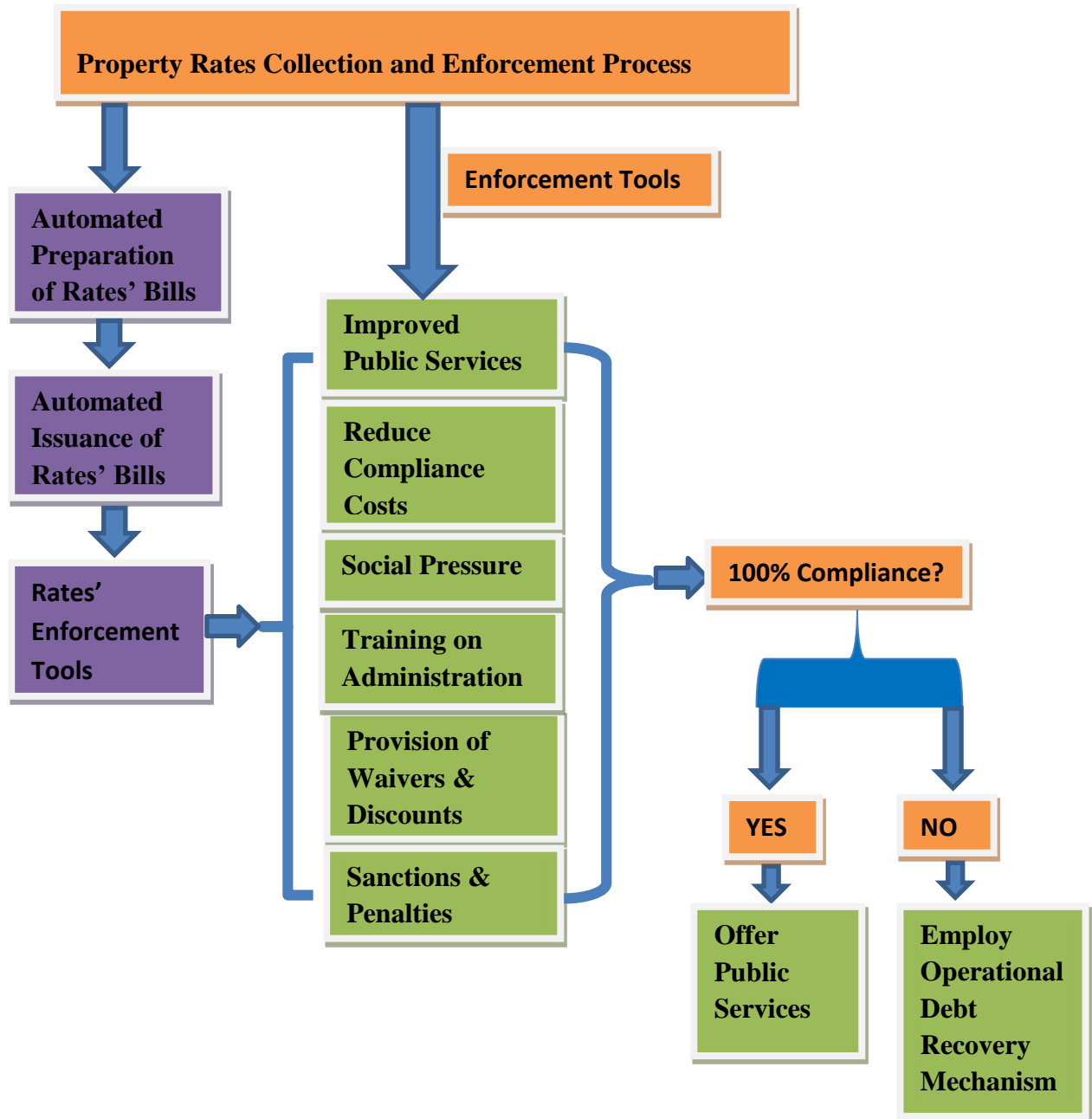
Property rates enforcement tools include improved public services offered by local government; training on property tax structure; reducing compliance costs; social pressure; provision of discounts and waivers on property rates interest; sanctions and penalties; and operational tax debt recovery. Figure 2.4 further illustrates how fully property rates' compliance can be achieved through these tools. However, the effectiveness of these tools in ensuring compliance differ substantially. Therefore, there is need to evaluate the effectiveness of rates enforcement tools in guaranteeing 100 percent compliance in payment.

Compliance (C) is directly affected by the property rates enforcement tools. Compliance is therefore a dependent variable while enforcement tools are independent variables. Compliance is a function of improved public services (S); training on property rating structure (R); reducing compliance costs (CC); social pressure (SP); provision of discounts & waivers (D&W) on property rates interest; sanctions and penalties (S &P); and operational tax debt recovery (DR).

$$C = f\{S, R, CC, SP, D\&W, S\&P, DR\}$$

The level of compliance which is a dependent variable improves with increased enforcement efforts facilitated by enforcement tools (independent variables).

Figure 2.4: Conceptual Framework



Source: Adopted and Modified From Kamba (2007), Sepulveda & Vazquez (2012) and Kelly (2013).

From figure 2.4 above, an effective and efficient property rates collection and enforcement process is facilitated by automated preparation and issuance of rates' bills to rateable property owners. Enforcement aims at ensuring 100 percent compliance through the use tools such as improved public services; reducing compliance costs; social pressure; training on property tax structure; provision of discounts and waivers on property rates interest; and sanctions and penalties. On one hand, compliance in rates payment enables the devolved government to offer public services. On the other hand, failure to comply in payment of rates necessitates the use of operational tax debt recovery as a last resort tool of enforcement.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The chapter entails a detailed discussion of the study area and research methodology employed. This chapter contains a description of the population, sampling techniques and data collection methods used by the researcher. The collected data is later used to test the study hypothesis as well as to meet the objectives of the study.

3.1 Background of the Area of Study

Nairobi is a hub of East Africa and the capital city of Kenya occupying approximately 684 square kilometres and is situated at 1°17'10"S 36°49'16"E, at an altitude of 1,795 meters above the sea level. Besides, the city county has the highest population in Kenya projected to be 4,253,330 people in 2017 (NCC, 2014). Murigu (2005) rightly puts it that Nairobi is the nerve centre of Kenya and its effective control, whether economically or politically is tantamount to the control of the nation. Nairobi is the most active urban area in Kenya with a high expenditure on public services. The city is also characterized with many rateable properties which are taxed in order to provide revenue for the required public services. Figure 3.1 indicates the map of 47 Counties in Kenya

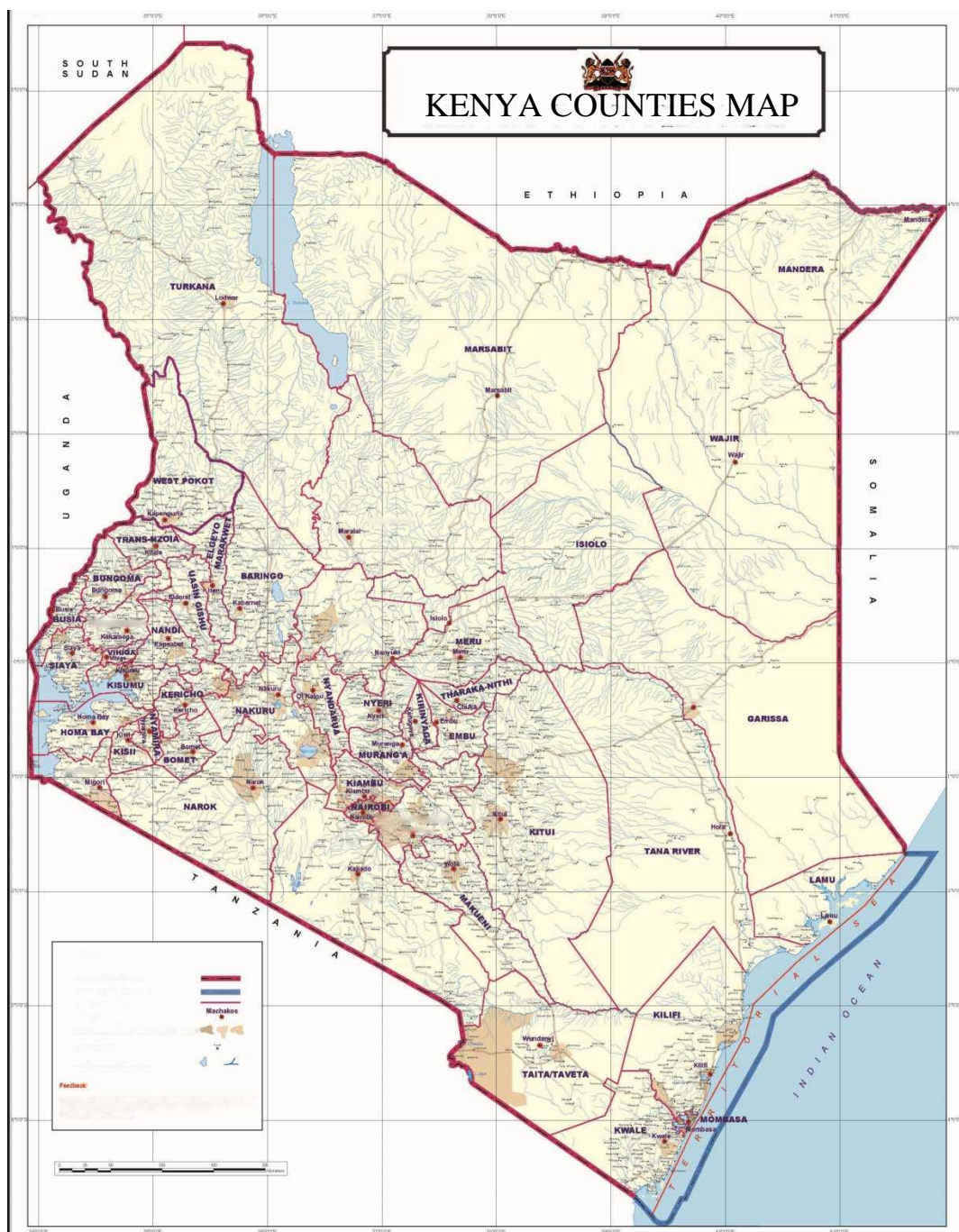
Though a lot of research has been conducted on property rating in Kenya and Nairobi in particular, there is limited work done to evaluate the effectiveness of property rates collection and enforcement in devolved systems of government in Kenya. This study concentrates on evaluation of effectiveness of property rates collection and enforcement in the Nairobi City County whose zones are indicated in Figure 3.2.

3.2 Research Design

Research design is the approach of planning and conducting the study, procedures and research techniques engaged to address the research question (McMillan & Schumacher, 1984). Mugenda and Mugenda (2012) noted that research design entails is an investigation plan and strategy to answer research questions. It provides a framework for planning and conducting a study.

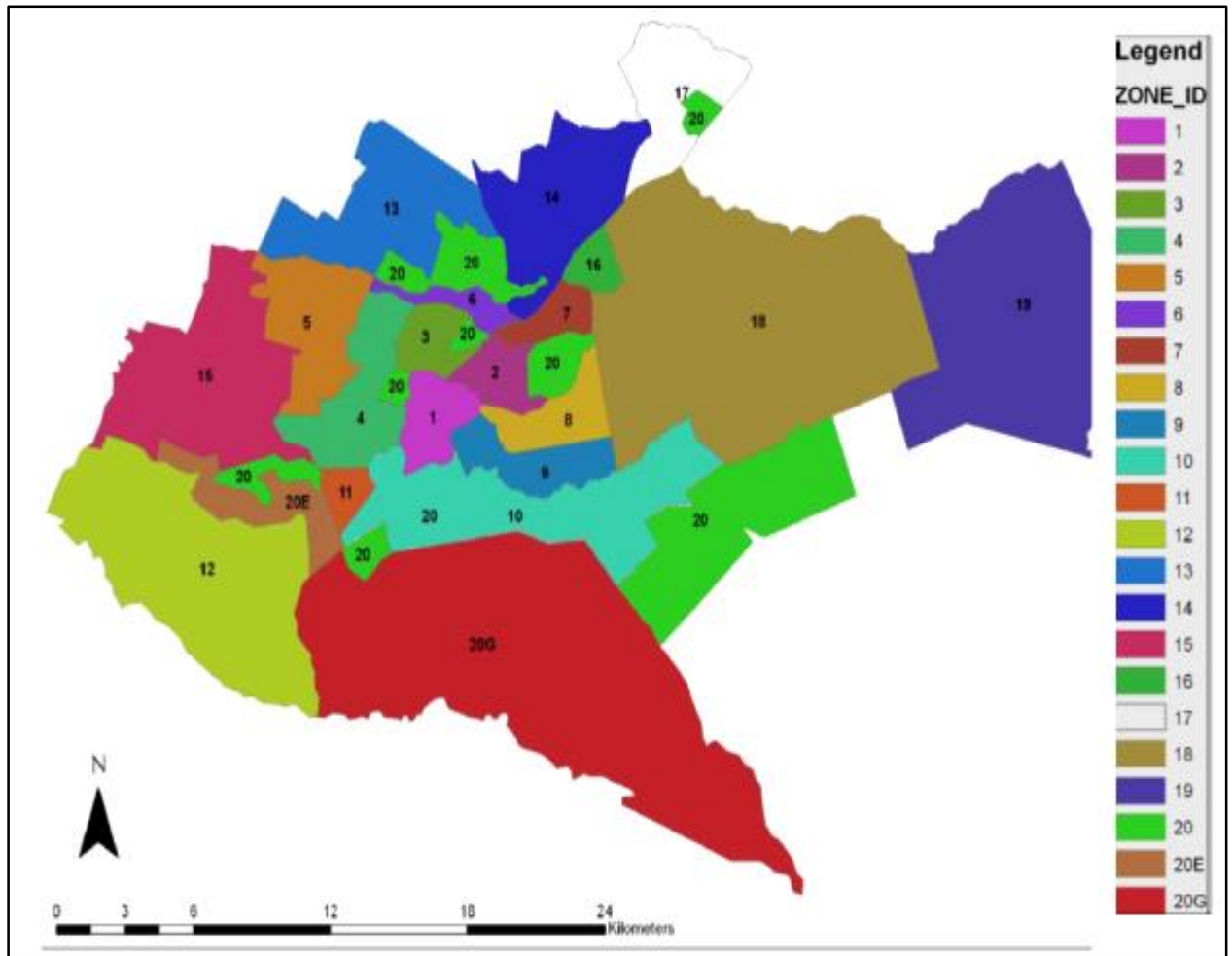
The descriptive research methodology was adopted in this study. Heiman (2001) argues that descriptive research involves the observation and description of a behaviour, situation it occurs in or the individuals exhibiting it. It examines the relationship between two or more variables. The study used descriptive research methodology to establish the mean value rating of effectiveness of enforcement tools, standard deviations, frequencies, skewness, kurtosis, maxima and minima. In addition, z-test was performed on the data to establish effective enforcement tools.

Figure 3.1: Map of 47 Counties in Kenya



Source: NCC (2014)

Figure 3.2: Map of Nairobi City Zones



Source: City Council of Nairobi (2005)

The output of the study includes: a record of property tax collection ratio from 2010 to 2015, identification of the tools of property rates collection and enforcement, establishing effectiveness of property rates collection and enforcement tools in ensuring full compliance and identifying challenges facing property rates collection and enforcement in Nairobi City County.

Mugenda and Mugenda (2012) consider the unit of analysis to be the element whose data is aggregated and analysed in the study to make conclusions, decisions or inferences. Unit of analysis entails what or whom is being studied (Babbie, 2001). The units constitute measured variables that form the analysed data (Rukwaro, 2016).

The primary units of analysis of this study include owners of rateable properties and rates administration officers who deal with rates collection and enforcement in Nairobi City County. Rateable property owners comply in payment of rates based on tools of enforcement employed by collection and rates enforcement officials. In order to adequately answer the research questions, it was important to obtain information of annual rates collection vis-à-vis the total

billed. In addition, it was also necessary to engage the enforcement officers. The researcher considered two categories of rates administration officers: chief accountant in charge of rates and land rates collection and enforcement officers (debt collection unit). The chief accountant in charge of rates supervises collections of property rates in Nairobi City County while land rates collection and enforcement officers (debt collection unit) are tasked with enforcing the rates to ensure full compliance. The ratio of collected to billed rates constitutes the collection ratio.

The secondary units of analysis include valuation for rating professionals and academicians. Academicians and professionals involved in rating process have strong opinions about the subject.

3.3 Population, Sample Size and Sampling Technique

Babbie (2001) defines population as the specified aggregation of the elements in a study. This study is meant to evaluate the effectiveness of property rates collection and enforcement in Kenya. The target population is rateable property owners in Nairobi City County.

Population frame entails a comprehensive list of the elements of the target population used to select the sample (Mugenda and Mugenda, 2012). Rukwaro (2016) suggests that listing the elements of the population enables one to determine the sample size and appropriate sampling method. A Guide of Nairobi City Development Ordinances and Zones (2005) indicate that Nairobi City County has 20 zones. The rateable properties in Nairobi are spread in these zones. Table 3.1 provides Nairobi City Development Zones.

Mbeche (2004) describes sampling as the selection of portion of a population of items to represent the whole. It estimates the population values from the samples. Sampling has massive merits, including saving on costs and time, allowing for more accurate results and ensuring better supervision. Stratified random sampling method was adopted.

The population consist of rateable properties within the geographical boundaries of Nairobi. The choice of Nairobi City County is based on the fact that it is the capital city of Kenya. Nairobi City County has the biggest number of rateable properties compared to other counties. It therefore forms a good representative of other counties.

Rateable properties were sampled using stratified random sampling. All rateable properties within the city boundaries were placed into groups (strata) depending on the zones. Stratification was important because of non-homogeneity of rateable properties by zones. Each

zone was considered as a stratum. The researcher categorized the zones or strata into residential and commercially users to ensure that both residential and commercial properties are equally represented. Nairobi City County plans and A Guide of Nairobi City Development Ordinances and Zones (2005) was used to facilitate sampling.

In determining the sample size required, the rule of the thumb should be to obtain as a big sample as possible (Mugenda and Mugenda, 1999). The major challenge in deciding the sample size is resources and time constraints. Gay (1981) notes that the sample size is influenced by number of study variables, research design and data analysis method. For a correlational study, a minimum of 30 cases are essential for descriptive studies while experimental studies require 10% of the accessible population (Gay, 1981). In stratified sampling, a minimum of 30 cases are required per strata (Roscoe, 1975, in Kieti, 2015). If there are no estimates available of the target population assumed to have the characteristics of interest, 50% should be used (Mugenda and Mugenda, 1999). Alreck and Settle (1985) in Murigu (2005) proposed that a sample size of 100 cases is adequate. Roscoe (1975) in Kieti (2015) suggests that a minimum of 30 samples and a maximum of 500 samples are appropriate for most researches.

Mugenda and Mugenda (1999), recommend use of the following formula to determine sample size:

If target population is 10,000 or more then:

$$s = \frac{z * z * p * q}{d * d}$$

Where *s* is the desired sample; *z* is standard normal deviate, *p*=% target population, *q*=1-*p*, *d* is the level of statistical significance test.

Taking *z* to be 1.96, *p*=50%, *q*=1-*p* (ie 1.0-0.5), *d* = 0.05, the desired sample will be;

$$s = \frac{1.96 * 1.96 * 0.5 * 0.5}{0.05 * 0.05} = 384$$

From the foregoing, in view of the opinions of the above scholars regarding the determination of sample size, considering that personal and property rates information is very secretive and difficult to access, the researcher considered a sample of Four (4) zones consisting of Two (2) commercials and Two (2) residential user to be good enough. The researcher numbered all the commercial and residential zones. The fishbowl draw method was then used to randomly select two commercial and two residential zones. Given that a minimum of 30 samples is required per

strata in stratified random sampling, the researcher gave an allowance of extra 10 samples to cater for questions which would not be returned by rateable property owners. Consequently, a total of 40 samples were randomly selected from each of the Four (4) zones resulting into a total of 160 samples. The commercial zones sampled included Central Business District (CBD) and Upper Hill. On the other hand, the residential zones entailed Makadara & Buruburu; and South B, South C & Lang'ata.

Other respondents included chief accountant in charge of rates and land rates collection and enforcement officers (debt collection unit). The chief accountant in charge of rates in conjunction with Nairobi City County treasury provided information on collections of property rates from 2010 to 2015. The land rates collection and enforcement officers (debt collection unit) responded to questions regarding challenges faced in rates collection and enforcement.

3.4 Data Collection Methods

The study involved the use of a semi-structured questionnaires having open and close-ended questions for data collection. The data was collected through personal administration. Questionnaires were dropped and then later picked depending on the convenience of the particular respondents. Before administering questionnaires, prior consent was sought from the respondents. Respondents in this study were rateable property owners and rating administrators in Nairobi. Two research assistants were engaged to collect the data.

Bogen (1997) noted that interview length affects response rate by influencing the respondents' behaviour and attitudes. The number of items in a questionnaire should be as few as possible to ensure high response rate. Three questionnaires with 6 to 8 items were prepared and administered to the respondents who included rateable property owners, land rates collection and enforcement officers (debt collection unit) and chief accountant - land rates. The questionnaire had different types of questions including multiple choice and single response questions. Also, the multiple choice / multiple responses for independent responses were included. Besides, the questionnaire had questions on likert scale having different extents of opinions.

Secondary data was obtained from published text books, unpublished scholarly works and papers from real estate journals and financial publications. This served as a benchmark for the research.

Table 3.1: Nairobi City Development Zones

ZONE	AREAS COVERED	TYPE (S) OF DEVELOPMENT ALLOWED	MIN. AREA (Ha.)
1A	Central Business District (CBD), Core CBD, Peri CBD, West & East of Tom Mboya St, Uhuru highway, University way and Kipande Road	Commercial/Residential/Light Industry	0.05
1E	Upper Hill Area: Block 1 to 6	Commercial/Offices/ Residential	0.05
2	Eastleigh, Pumwani/California and Ziwani/Starehe	Commercial/Residential (High-rise Flats)	0.05
3	Parklands, City Park Estate/Upper Parklands and V	Commercial/Residential (High-rise Flats)	0.05
4	Spring Valley Riverside Drive Kileleshwa Kilimani Thompson Woodley	Residential (Apartments allowed on sewer only) - Four Storeys Max.	0.05
5	Upper Spring Valley, Kyuna, Loresho and Lavington/Bernard Estate	Low-Density Residential One-Family House	0.2(u) 0.1(S)
6	Muthaiga New Muthaiga	Low-Density Residential	0.2
7	Mathare, Lower Huruma, Kariobangi, Korogocho and Dandora	High-Density Residential (Flats) Informal Settlements (Slums)	0.05 Lower in S&S Schemes
8	Old Eastlands, Shauri Moyo, Maringo, Bahati, Kaloleni, Makangeni, Mbotela, Jericho, Jerusalem, Makadara, Doonholm, Uhuru, Buruburu, Umoja, Komarock and Kayole	Residential – Mixed Development, Flats, Maisonettes, Bungalows, Site-and-service Schemes Condominiums (Single Rooms)	0.5
9	Main Industrial Area	Industries/Godowns	0.05(on sewer)
9E	Dandora Industrial Zone, Kariobangi Light Industrial, Mathare North Light Industrial and Kariobangi Light Industrial	Light Industries/Godowns	0.01 if not on sewer
10	Nairobi West, Makadara, South B, South C, Nairobi Dam, Ngumo, Highview, Magiwa, Golf Course and Langata	High Density Residential Development Mixed Residential Development • Flats, • Maisonettes • Bungalows	0.5
10E	Villa Franca, Imara Daima, Tassia, Fedha, Avenue and Embakasi	Residential Mixed Development	0.5
11	Special Scheduled Area (Kibera Slums) and National Housing Corporation (NHC) Estates	Informal Mixed Developments Comprehensive Residential Schemes	0.05
12	Karen and Langata	Low Density Residential Developments (One Family Dwelling House)	0.2 0.4
13	Gigiri, Kitisuru, Ridgeways, Garden Estate and Safari Park/Balozi Housing	Low-Density Residential (One Family Dwelling House)	0.2
14	Roysambu, Thome and Marurui	Low-Density Residential (One Family Dwelling House)	0.2
15	Dagoretti, Riruta, Kangemi, Mutuini, Waithaka, Ruthimitu and Uthiru	Agricultural/Residential Mixed • Gap Flats • Maisonettes • Bungalows	0.1 0.05 on township sewer
16	Baba Dogo, Ngumba and Ruaraka	Industrial Zone Residential (Mixed Residential Development)	0.05 lower if comprehensive
17	Githurai 44 & 45, Zimmerman and Kahawa West	Industrial Zone Residential (Mixed Residential Development)	Blanket approval
18	Kasarani: Clayworks, Clay City, Sports View, Mwiki, Njiru and Ruai	• Agricultural • Residential Mixed Development	0.05 on sewer 0.1 ha. if not on sewer
19	Special Scheduled Area Outside Nairobi Boundary: Githurai, Wendani and Kahawa Sukari	Agricultural Residential (Mixed Development)	Influenced by city dynamics
20	Public/Strategic Reserved Areas (Gazetted): State House, JKIA Airport, Wilson Airport, Military Sites, Military Airbase Eastleigh, DoD Headquarters, Kahawa Barracks, Langata Barracks and Karen Forces Memorial Hospital	Special/strategic facilities and Developments	
20g	Recreational and Forests: City Park, Arboretum, Ngong Forest, Karura Forest, National Game Park Stadiums, Kasarani Stadium, City Stadium, Nyayo Stadium, Uhuru Park, Central Park and Uhuru Gardens	Public Open Spaces, Reserves and Recreational Facilities	

Source: City Council of Nairobi (2005)

3.5 Variable Identification, Description and Measurement

A variable is any feature that can change across individuals or circumstances and is of varying levels, intensity or types (Kieti, 2015). Variables are categorized into two groups: dependent and independent. On one hand, an independent variable is controlled or manipulated by the experiment (Ikpe et al, 2011). The investigator is attentive to the effects of independent variables. On the other hand, a dependent variable indicates the total impact from the independent variables (Kieti, 2015). Consequently, the dependent variable is a function of the independent one.

3.5.1 Dependent and Independent Variables

In this study, compliance/collection ratio in property rates payment is a dependent variable denoted by C. James and Alley (2004) noted that compliance is assessed in terms of ‘tax gap’ which shows the variance of actual rates collected from the total tax liability. Total tax liability represent the amount that would be collected in the case of 100 percent compliance. Consequently, compliance/collection ratio can summarized as follows:

$$Compliance, C = \frac{Actual\ Revenue\ Collected}{Total\ Tax\ Liability} \times 100\%$$

The independent variables in this study were obtained from literature review on property rates enforcement tools in journals both published and unpublished by scholars from different countries. The variables obtained from literature are summarized in the conceptual model of property rates compliance presented in chapter two of this study. Enforcement tools that were considered for analysis included improvement on public services provision (S); training on property rating structure (R); reduction on compliance costs (CC); social pressure (SP); provision of discounts and waivers (D&W) on property rates interest; sanctions and penalties (S &P); and operational tax debt recovery (DR). These variables were subjected to the sampled respondents using structured or close end questionnaires in order to determine their effectiveness in ensuring fully compliance.

3.5.2 Measurement of Variables

The respondents were able to identify the collection and enforcement tools in Nairobi City County. They were also required to rate these tools in a numeric scale in order to establish their effectiveness. Alreck and Settle (1985) in Murigu (2005) suggest that it is advisable to use a horizontal numeric scale in judging items on a single dimension or continuum. A review of literature was carried out to facilitate the devising of the scale. This was coupled with interviews

of randomly selected key participants in property rating administration. The participants included two rates administration officers, two valuers and ten rateable property owners in Nairobi.

3.5.3 Design of the Likert Scale

The researcher felt that a total of 14 participants in property rates administration would come up with a scale that is adequate to enable identification and ranking of the tools that affect the level of compliance in property rates payment. The researcher employed a step-by-step procedure in designing the likert scale. The first step involved construction of statements which reflected the effectiveness of enforcement tools in ensuring compliance in rates payment. The statements were worded to reflect both effectiveness and ineffectiveness of enforcement tools. Secondly, the statements were administered to the two rates administration officers, two valuers and ten rateable property owners in Nairobi. The third step involved analysis of responses by assigning a weighting – a numerical value to each. Four categories of responses regarding the effectiveness of enforcement tools in ensuring compliance in rates payment were given ie “not effective, less effective, effective and very effective”. On the basis of their views and information obtained from literature review, a numerical scale of 1 – 4 representing the two extremes of “not effective” and “very effective” was devised as follows:

1. - Not Effective
2. – Less Effective
3. – Effective
4. – Very Effective

The tools that affect compliance were ranked using mean ratings of the variables.

3.6 Data Analysis and Presentation

Data analysis was done using Statistical Package for Social Sciences (SPSS) and MS Excel. Descriptive statistics was performed on the data to summarize the variable data thus enhancing its understanding. The descriptive statistics selected for this study included the mean, standard deviation, frequencies, maxima and minima. In addition, z-test was performed on the data in order to establish tools that are effective in rates collection and enforcement.

Data collected represents two categories i.e. quantitative and qualitative data. Quantitative data was represented by use of tables and percentages, while qualitative data was presented in form of charts used to describe events and occurrences.

3.7 Hypothesis Testing

All the Seven (7) variables identified had two hypothesis. The null hypothesis (H_0) was that the enforcement tools are ineffective in ensuring compliance in payment of property rates. Alternative hypothesis (H_1) was that enforcement tools are effective in ensuring compliance in payment of property rates. Failing to accept the null hypothesis means accepting the alternative hypothesis. It is therefore important that a decision point is set, that is, a point at which to accept the null hypothesis based on population mean score. Since it was assumed that the characteristics of the sampled rateable properties are similar to that of the entire population of properties being studied. It was also assumed that since the population is to obey the normal distribution, the four possible scores of 1-4 in the devised numerical scale have an equal chance of occurring therefore the population mean score is **2.5** on the rating scale. This is a point higher than less significant on the decision scale and forms the decision point (Talukhaba, 1999). Consequently, any tool that achieved a mean score of above **2.5** was considered to be effective in ensuring compliance in payment of property rates.

To eliminate or minimize errors in identification of effective tools, there is need to set confidence level. Identification of effective tools is prone to type I error and type II error. In type I error or alpha error the researcher concludes that a particular tool is effective when actually it is not. The researcher may therefore reject the null hypothesis when it is true. On the other hand, type II or beta errors occurs when a certain variable is ineffective when it is actually effective. The null hypothesis is accepted when it is false.

Talukhaba, (1999) argues that type I error can be avoided by setting a lower confidence level of 95% while type II error can be avoided by a higher confidence level of say 99%. Given the social-economic nature of this research, committing type I error was considered less harmful than committing type II error.

Consequently, a lower confidence level of 95% was set in the Z – test analysis of the variables and the one-tail Z-test was selected in the analysis. Any score above the population mean score of 2.5 is already significant.

The Z-value for each variable was calculated using the formula:

$$z = (\bar{x} - \mu) / \left(\frac{\delta}{\sqrt{n}} \right)$$

Where;

Z = calculated z-value

\bar{x} = mean variable score for each variable

μ = population mean score which is 2.5 for the subject population

n = sample size

The Z-value calculated for each variable was compared with Critical Z – value at the selected confidence level of 95% in a one tail Z – test which is **1.65** for this case. Mark (2006) provided critical values at various confidence levels as shown in Table 3.2.

Table 3.2: Critical Value of Z

Probability (level of significance)	One-tailed test	Two-tailed test
0.05 (95% confidence level)	1.65	1.96
0.01 (99% confidence level)	2.33	2.58
0.001	3.09	3.29

Source: Mark (2006)

Where the Z-value calculated for each variable is greater than critical z-value at the selected confidence level, the researcher will be confident that the particular variable is effective in ensuring property rates compliance.

3.6 Summary

The chapter started by describing the area of the study. Nairobi City was selected as the case study because of being the capital city of Kenya. Besides, it has very many rateable properties. Research design is outlined in this chapter. The target population comprised of all rateable properties. Respondents in this study have also been provided. In addition, the chapter highlights the procedure for data collection and an outline of the method of data analysis and hypothesis testing.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.0 Introduction

This chapter analyses and presents the data obtained from the field study. The data collected aimed at assessing the effectiveness of property rates collection and enforcement in Nairobi City County. The field research was carried out in May and June 2017. A total of 160 questionnaires were administered in Nairobi CBD, Upper Hill, Makadara & Buruburu and South B, South C & Lang'ata but the researcher managed to obtain 128 completed questionnaires.

4.1 Respondents' Background Information

The highest response rate was from Makadara & Buruburu at 87.50%, followed by Upperhill at 80.00% and then South B, South C & Lang'ata at 77.50% as shown in Table 4.1.

Table 4.1: Response Rate of the Questionnaires Administered

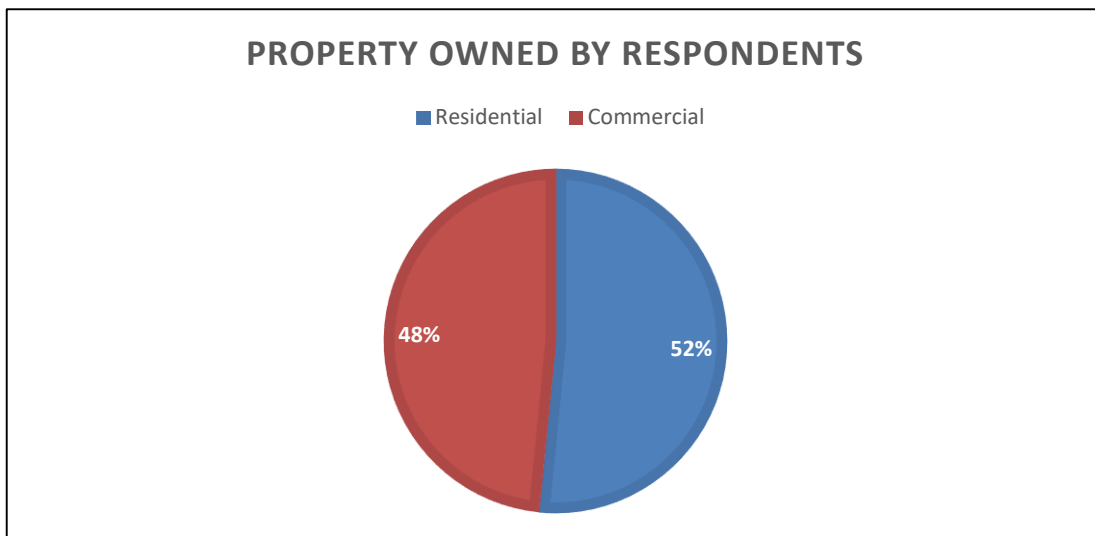
Zone	Targeted Respondents	Actual Respondent	Response Rate
Makadara & Buruburu	40	35	87.50%
Upperhill	40	32	80.00%
South B, South C & Lang'ata	40	31	77.50%
Nairobi CBD	40	30	75.00%
Average	40	32	80.00%
Total	160	128	80.00%

Source: Field Survey (2017)

Mugenda and Mugenda (1999) highlights that a response rate of 50 per cent, is adequate for analysis and reporting, 60 per cent is a good response while 70 per cent is very good. The average response rate was very good (at 80.00 per cent).

Figure 4.1 shows the type of rateable properties whose owners were interviewed during the field study. From the figure, it is clear that 52.00% of the respondents own rateable residential properties while the remaining 48.00% own commercial ones which gives a general indication data most of the rateable property owners who responded in Nairobi City County own residential units.

Figure 4.1 Types of Property Owned by Respondents



Source: Field Survey (2017)

4.2 Respondents with Outstanding Property Rates

Data obtained from respondents indicate that Makadara & Buruburu have the least number of properties with outstanding rates at 14.29 percent followed by South B, South C & Lang’ata at 22.58 percent. Nairobi CBD has the highest number of defaulters at 33.33 percent followed by Upperhill at 28.13 percent. The rate of default in rates payment is higher for commercial properties than residential ones. Commercial properties have higher values thus implying that the rates payable are much more than the case of residential properties. The higher the rates payable, the higher the chances of defaulting in payment. The average rate of defaulters stands at 24.58%.

Table 4.2: Respondents with Outstanding Property Rates

Zone	Properties with Outstanding Rates	Total Respondents	Percentage with Outstanding Rates
Makadara & Buruburu	5	35	14.29%
Upperhill	9	32	28.13%
South B, South C & Lang’ata	7	31	22.58%
Nairobi CBD	10	30	33.33%
Average	7.75	32	24.58%

Source: Field Survey (2017)

4.3 Compliance in Payment of Property Rates in NCC from 2010 to 2015

Table 4.3 indicates the annual rates liability and collected amount in Nairobi City County from 2010 to 2015. The annual rates liability has been increase over the years from a low of Kshs. 12,349,722,000.00 in 2010/2011 to a high of Kshs. 39,038,481,000.00 in 2014/2015. Similarly, the total property rates collections per annum have been increasing over the period under review from Kshs. 1,792,597,000.00 in 2010/2011 to Kshs. 2,594,776,618.00 in 2014/2015. The results indicate that the annual rates liability has been growing faster than the amount collected per annum. The compliance rate is obtained by diving total property rates collected by the annual rates liability.

Table 4.3: Annual Property Rates Liability and Collected Amount

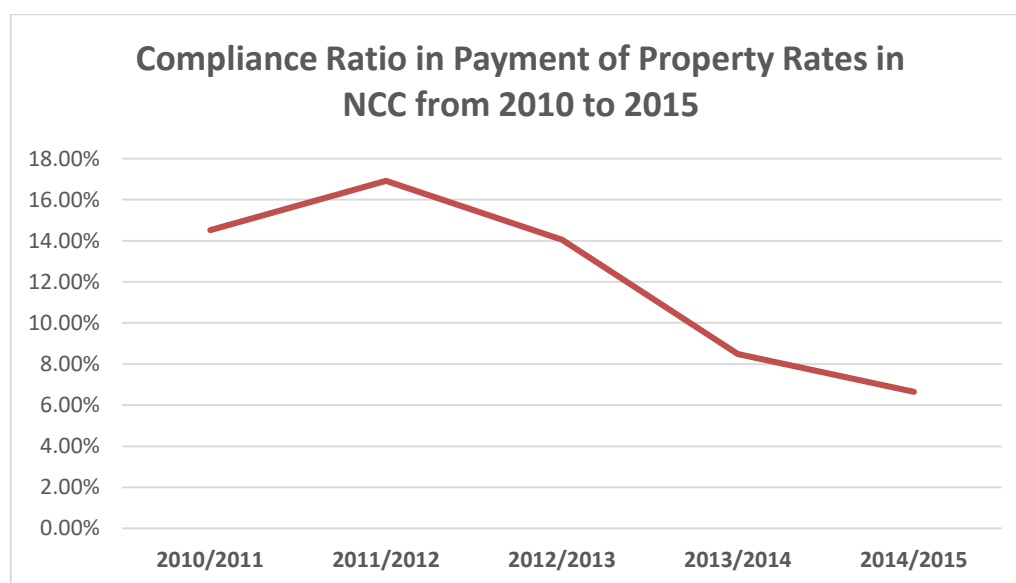
Year	Annual Rates Liability (Kshs)	Total Property Rates Collected (Kshs)	Compliance Rate
2010/2011	12,349,722,000.00	1,792,597,000.00	14.52%
2011/2012	13,127,242,000.00	2,221,855,000.00	16.93%
2012/2013	13,381,180,389.00	1,881,180,389.00	14.06%
2013/2014	26,762,360,778.00	2,273,133,460.00	8.49%
2014/2015	39,038,481,000.00	2,594,776,618.00	6.65%
Average	20,931,797,233.40	2,152,708,493.40	12.13%

Source: Field Survey (2017)

Figure 4.2 shows the compliance rates in payment of property rates in Nairobi City County from 2010 to 2015. From the figure, it is clear that the compliance rates have been reducing over the last couple of years. Compliance in rates payment dropped from 16.93 percent in 2011/2012 to 6.65 percent in 2014/2015. The decline in compliance was most drastic between 2012/2013 and 2013/2014 (from 14.06 percent to 8.49 percent). In 2013, Nairobi City County amended Nairobi City County Finance Act to allow for a drastic increase of rating rate from 17 percent to 34 percent of Unimproved Site Value of land as it appears in 1982 Valuation Roll. The rateable property owners had to bear the burden of the increased rates. The decline in

compliance can also be attributed to devolution which came into effect in 2013. Devolution led to increased transfers from national government to NCC resulting into a drop in enforcement of property rates. The average compliance rate for the period under review is very low at 12.13 percent. This agrees with findings from land rates collection and enforcement officers (debt collection unit) who estimated that the compliance rate is below 20 percent rated as ‘poor’.

Figure 4.2: Compliance in Payment of Property Rates in NCC from 2010 to 2015



Source: Field Survey (2017)

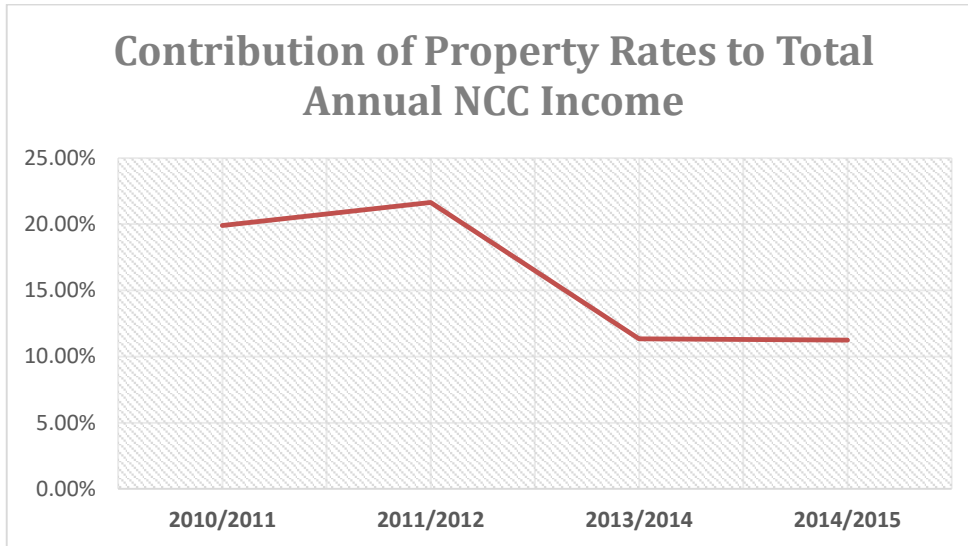
The results indicate that compliance in rates payment is poor due to poor enforcement. The study established that the Nairobi City County mostly rely on four enforcement tools in ensuring compliance in rates payment for 178,280 rateable properties. They include the following: provision of discounts and waivers on property rates interest; social pressure eg publishing names of defaulters; sanctions and penalties; and provision of interest free period from January to March every year.

4.4 Contribution of Property Rates to Nairobi City County Revenue

Contribution of property rates to Nairobi City County Annual Revenue from 2010 to 2015 is indicated in Figure 4.3. Reliance of Nairobi City County on property rates has been declining

from 21.63 percent in 2011/2012 to 11.24 percent in 2014/2015. The contribution of property rates to Nairobi City County annual revenue has been insignificant over the last five years due to low compliance among the rateable property owners.

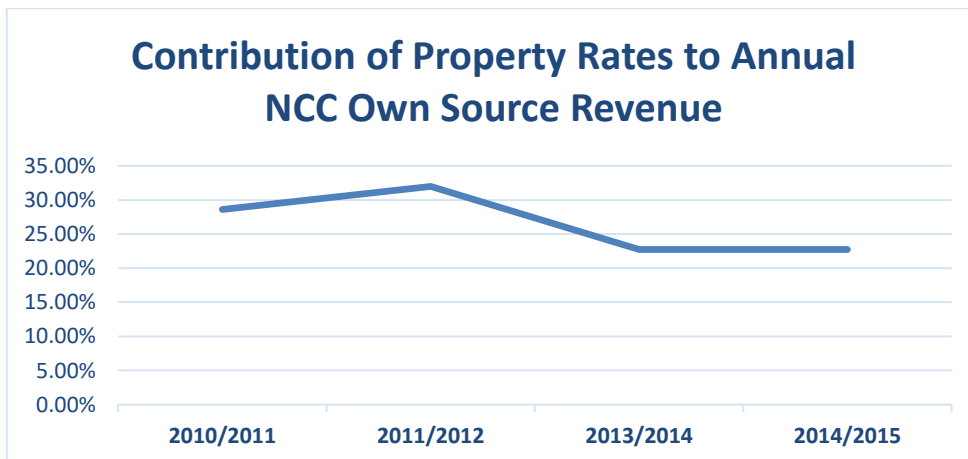
Figure 4.3: Contribution of Property Rates to Total Annual NCC Income



Source: Field Survey (2017)

Between 2011/2012 and 2013/2014, contribution of property rates to the annual Nairobi City County income sharply declined from 21.63 percent to 11.33 percent. The decline can be associated with introduction of devolved governance in Kenya. Devolution led to increased funding of Nairobi City County from exchequer.

Figure 4.4: Contribution of Property Rates to Annual NCC Own Source Revenue



Source: Field Survey (2017)

Based on the field study as indicated in Figure 4.4, the contribution of property rates to annual Nairobi City County own source revenue declined from 31.99 percent in 2011/2012 to 22.73 percent in 2014/2015. The decline was most sudden between 2011/2012 and 2013/2014 due to devolution. Despite the decline, the contribution of property rates to annual Nairobi City County own source revenue remains significant.

4.5 Property Rates' Collection and Enforcement Tools in Nairobi City County

The researcher approached 160 respondents in order to identify property rates' collection and enforcement tools applicable in Nairobi City County. The respondents identified the following tools of property rates collection and enforcement in Nairobi City County:

1. Improved public services;
2. Training on property rating structure;
3. Reducing compliance costs;
4. Social pressure;
5. Provision of discounts & waivers on property rates interest;
6. Sanctions and penalties;
7. Operational tax debt recovery.

However, the extent of applicability of these tools vary considerably. Information obtained from chief accountant in the land rates department and land rates collection and enforcement officers (debt collection unit) indicates that the most dominant property rates' collection and enforcement tools in Nairobi City County include: provision of discounts and waivers on property rates interest; training on property rating structure through print media and online resources; social pressure eg publishing names of defaulters; sanctions and penalties; and provision of interest free period from January to March every year. Improved public services and operational tax debt recovery as tools of enforcement are not being optimally.

They were also required to rate the effectiveness of collection and enforcement tools on a 4-point horizontal numerical scale. The total number of completed questionnaires were 128. The results of the value rating of effectiveness of the seven (7) enforcement tools as rated by respondents are as discussed below.

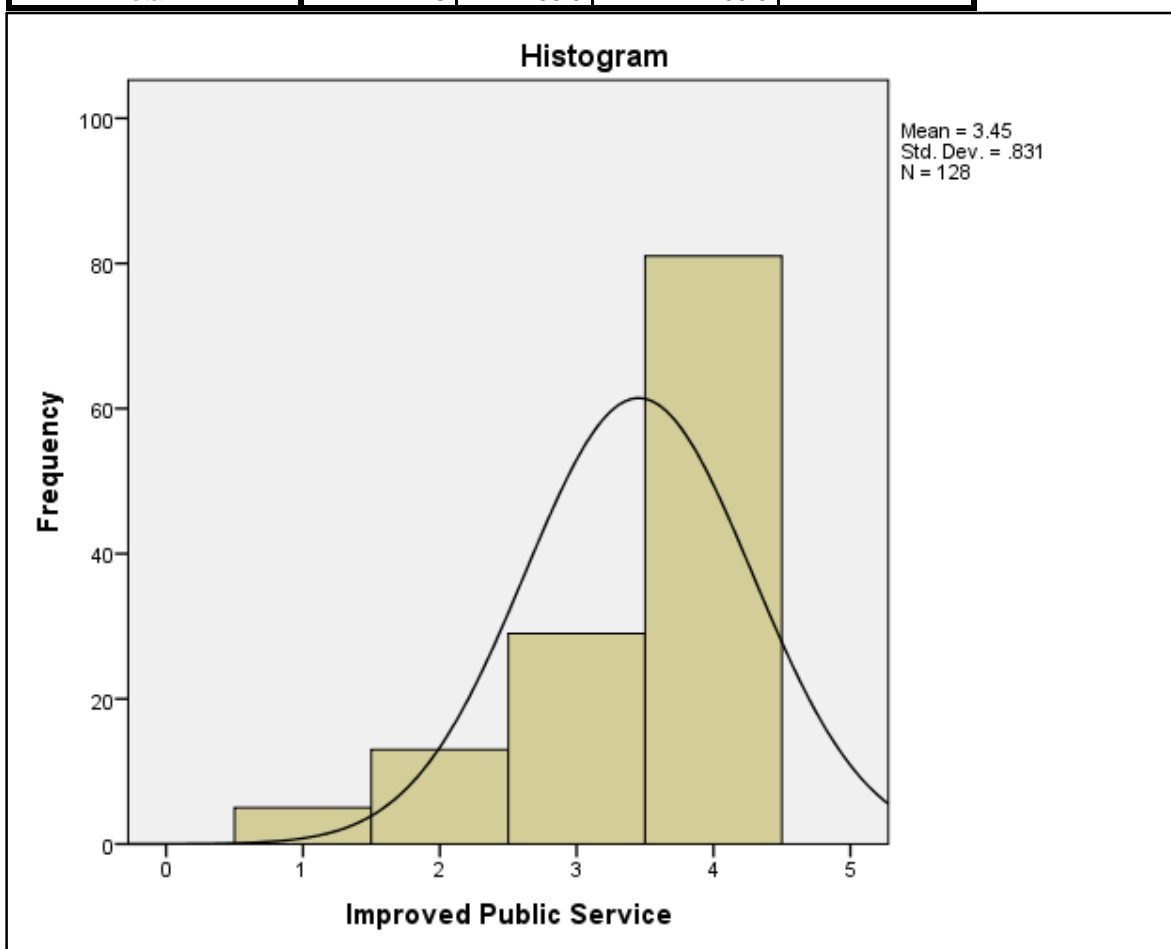
4.5.1 Improved Public Service

As indicated in Table 4.3.1, out of the 128 respondents, 81 or 63.3% of the respondents rated the tool 'improved public service' as very effective in the scale of 1-4. 22.7 % rated the tool as

“effective” while 10.2% and 3.9% rated the tool as ‘less effective’ and ‘not effective’ respectively.

Table 4.3.1 Rating of ‘Improved Public Service’ by the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Effective	5	3.9	3.9	3.9
	Less Effective	13	10.2	10.2	14.1
	Effective	29	22.7	22.7	36.7
	Very Effective	81	63.3	63.3	100.0
	Total	128	100.0	100.0	



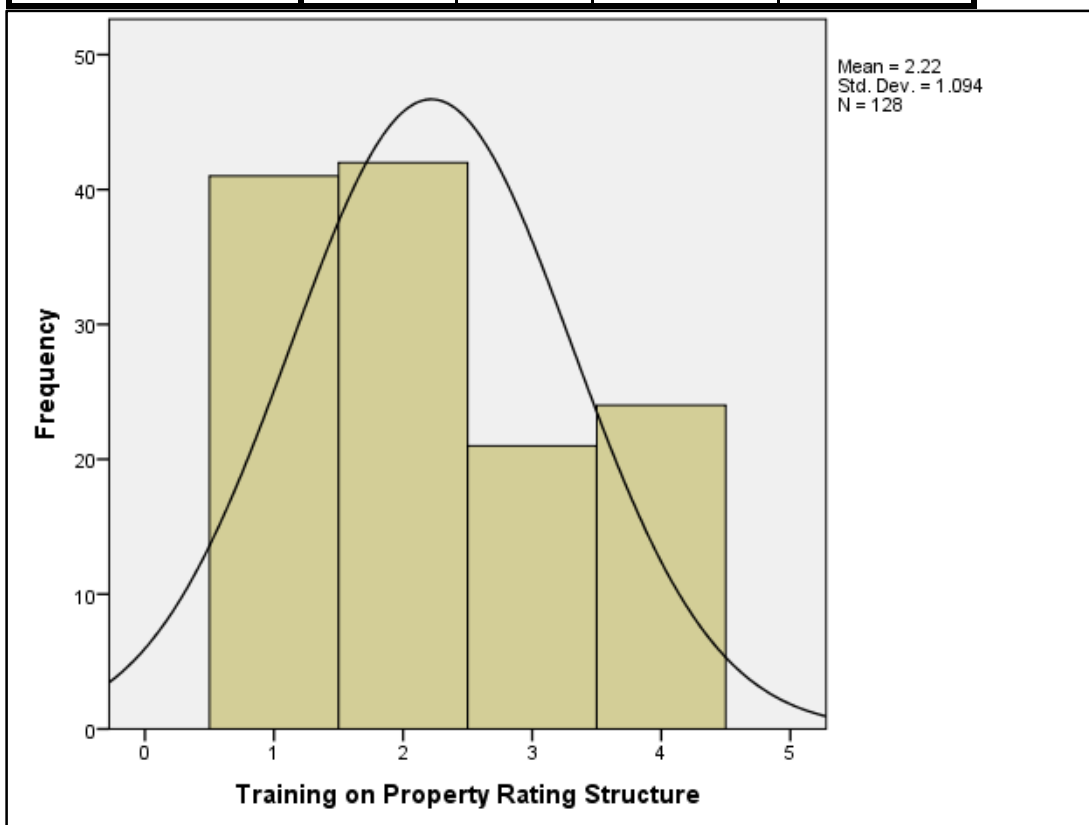
Source: Field Survey (2017)

4.5.2 Training on Property Rating Structure

The tool ‘training on property rating structure’ was considered to be very effective by 24 or 18.8% of the responding rateable property owners while about 21 or 16.4% of the respondents rated this factor as effective. This tool was considered as ‘less effective’ by 42 respondents or 32.8% while 41 or 32.0% rated it as ‘not effective.’

Table 4.3.2 Rating of ‘Training on Property Rating Structure’ by the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Effective	41	32.0	32.0	32.0
	Less Effective	42	32.8	32.8	64.8
	Effective	21	16.4	16.4	81.3
	Very Effective	24	18.8	18.8	100.0
	Total	128	100.0	100.0	



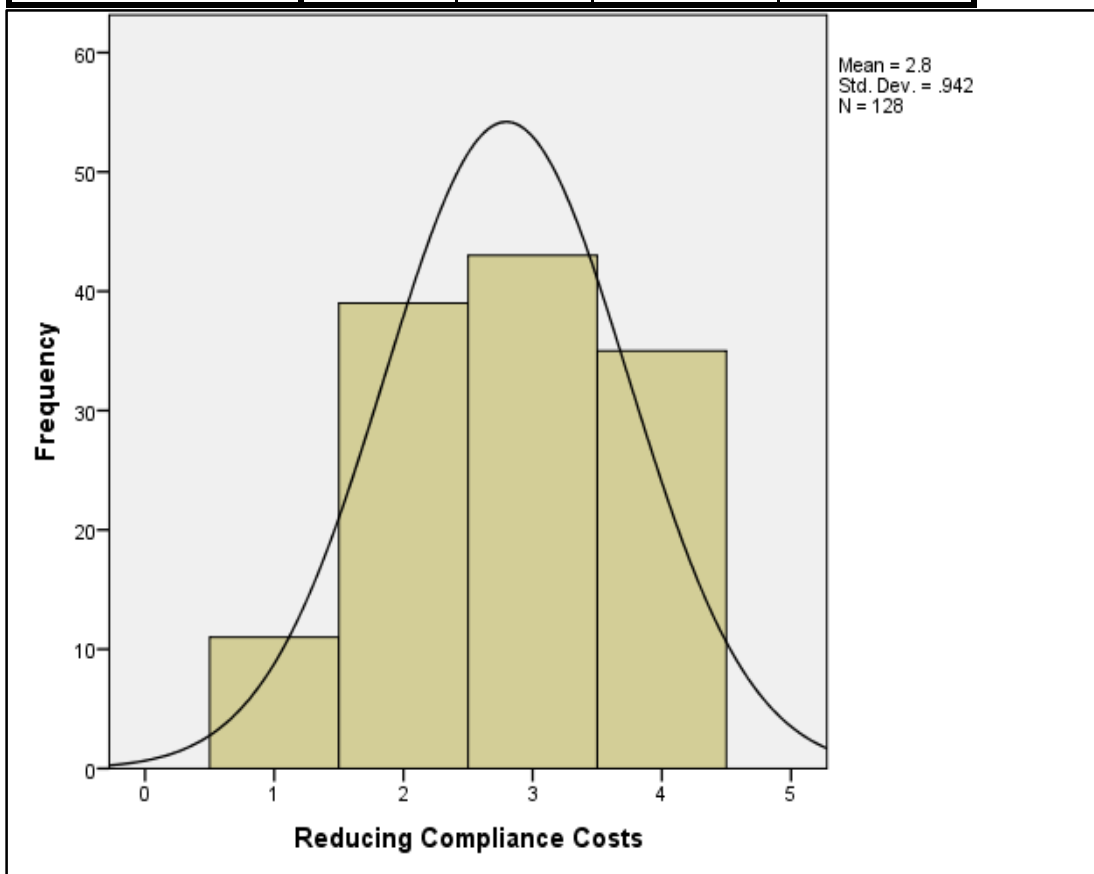
Source: Field Survey (2017)

4.5.3 Reducing Compliance Cost

As shown in Table 4.3.3, 35 or 27.3% of the respondents rated the tool ‘reducing compliance cost’ as very effective in the scale of 1-4 while 43 or 33.6% rated the tool as effective. The tool was considered by 30.5% and 8.6% of the respondents as ‘less effective’ and ‘not effective’ respectively.

Table 4.3.3 Rating of ‘Reducing Compliance Cost’ by the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not Effective	11	8.6	8.6	8.6
Less Effective	39	30.5	30.5	39.1
Effective	43	33.6	33.6	72.7
Very Effective	35	27.3	27.3	100.0
Total	128	100.0	100.0	



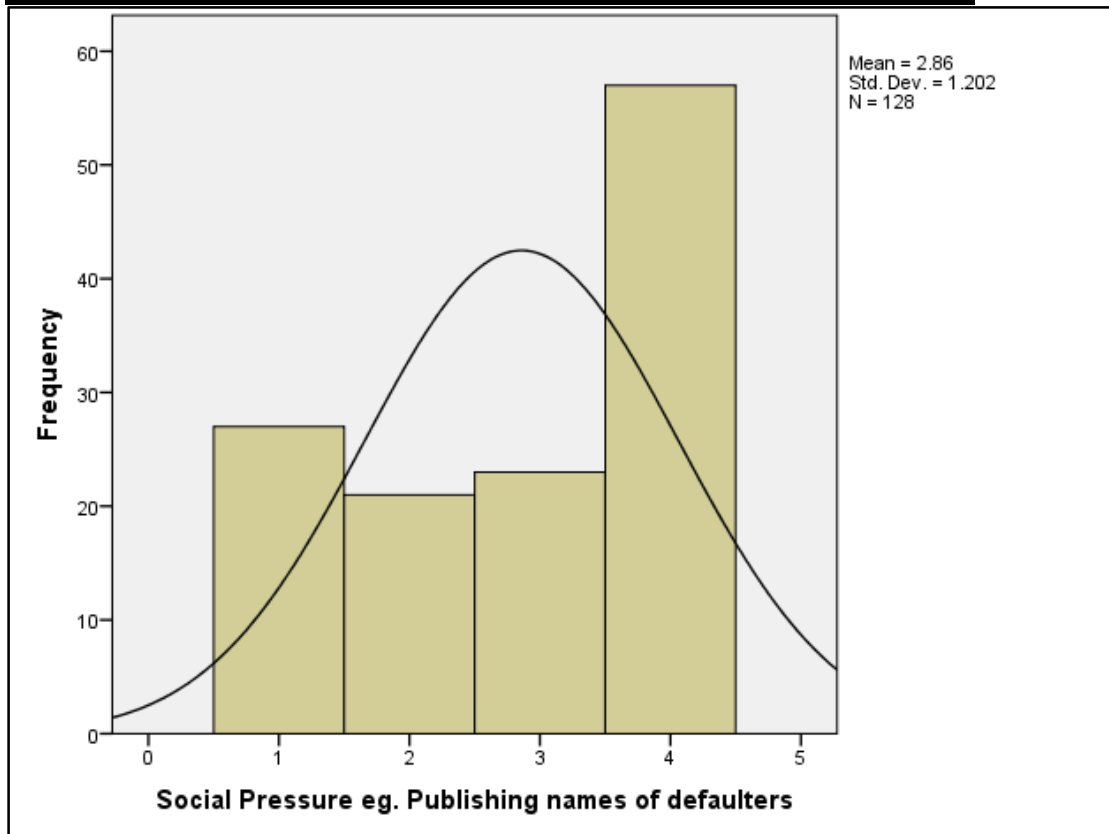
Source: Field Survey (2017)

4.5.4 Social Pressure

The tool ‘Social Pressure eg publishing names of defaulters’ was rated as very effective by 57 or 44.5% of the respondents while 18.0% rated this tool as effective in the scale of 1-4. The tool considered to be less effective and not effective by 16.4% and 21.1% of the respondents respectively as shown in Table 4.3.4.

Table 4.3.4 Rating of ‘Social Pressure’ by the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Effective	27	21.1	21.1	21.1
	Less Effective	21	16.4	16.4	37.5
	Effective	23	18.0	18.0	55.5
	Very Effective	57	44.5	44.5	100.0
	Total	128	100.0	100.0	



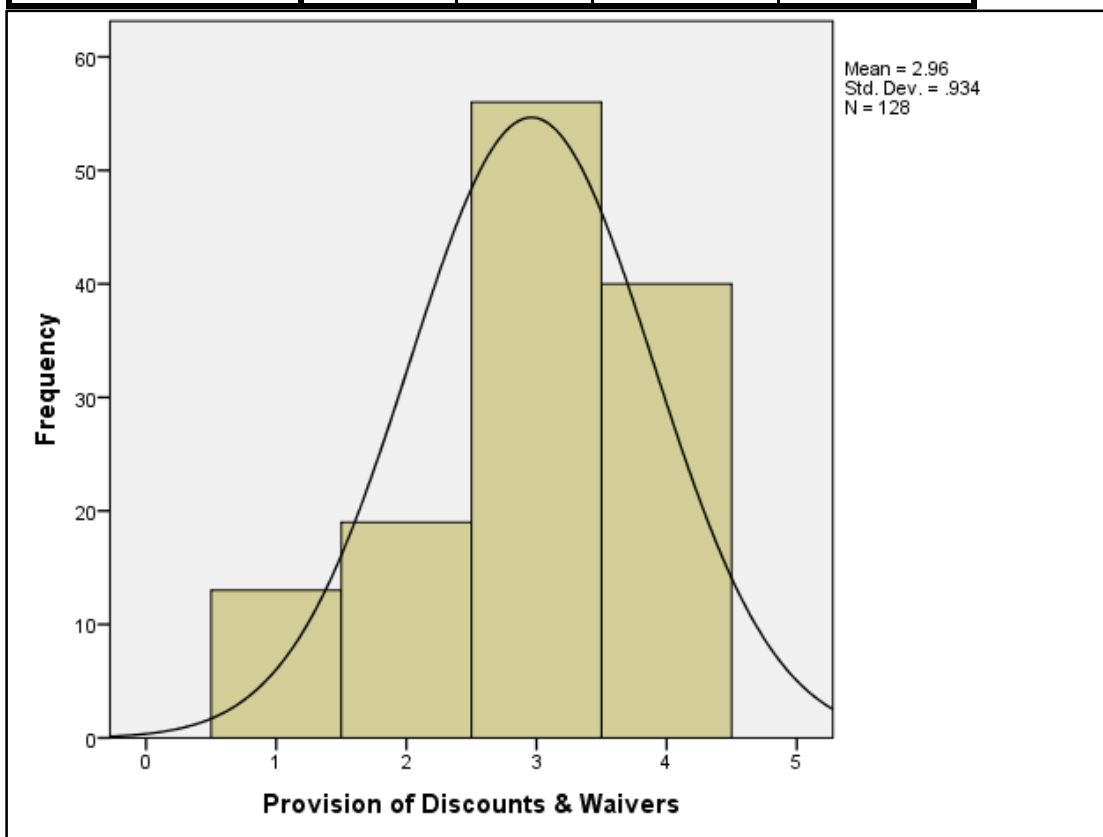
Source: Field Survey (2017)

4.5.5 Provision of Discounts and Waivers on Interests & Penalties

Provision of Discounts and Waivers on Interests & Penalties as a tool of enforcement was rated to be very effective by 31.3% of the respondents while 43.8% rated this tool as effective in the scale of 1-4. The tool was considered to be less effective by 14.8% of the respondents and not effective by 10.2% of the sampled rateable property owners as itemized in Table 4.3.5.

Table 4.3.5 Rating of ‘Provision of Discounts and Waivers on Interests & Penalties’ by the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Effective	13	10.2	10.2	10.2
	Less Effective	19	14.8	14.8	25.0
	Effective	56	43.8	43.8	68.8
	Very Effective	40	31.3	31.3	100.0
	Total	128	100.0	100.0	



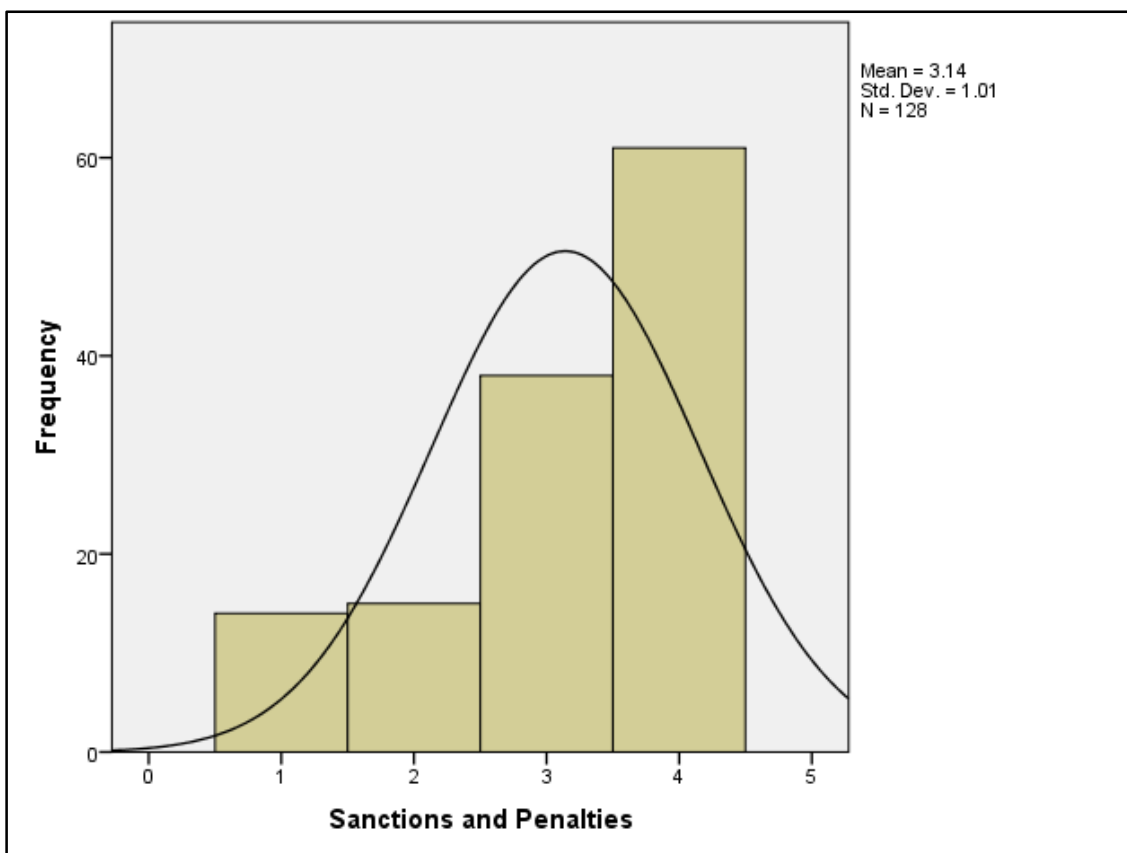
Source: Field Survey (2017)

4.5.6. Sanctions and Penalties

The tool ‘Sanctions and Penalties’ was considered to be very effective by 47.7% of the responding rateable property owners while about 29.7% of the respondents rated this factor as effective as shown in Table 4.3.6. This tool was considered as ‘less effective’ by 11.7% of the respondents or while 10.9% rated it as ‘not effective.’

Table 4.3.6 Rating of ‘Sanctions and Penalties’ by the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Effective	14	10.9	10.9	10.9
	Less Effective	15	11.7	11.7	22.7
	Effective	38	29.7	29.7	52.3
	Very Effective	61	47.7	47.7	100.0
	Total	128	100.0	100.0	



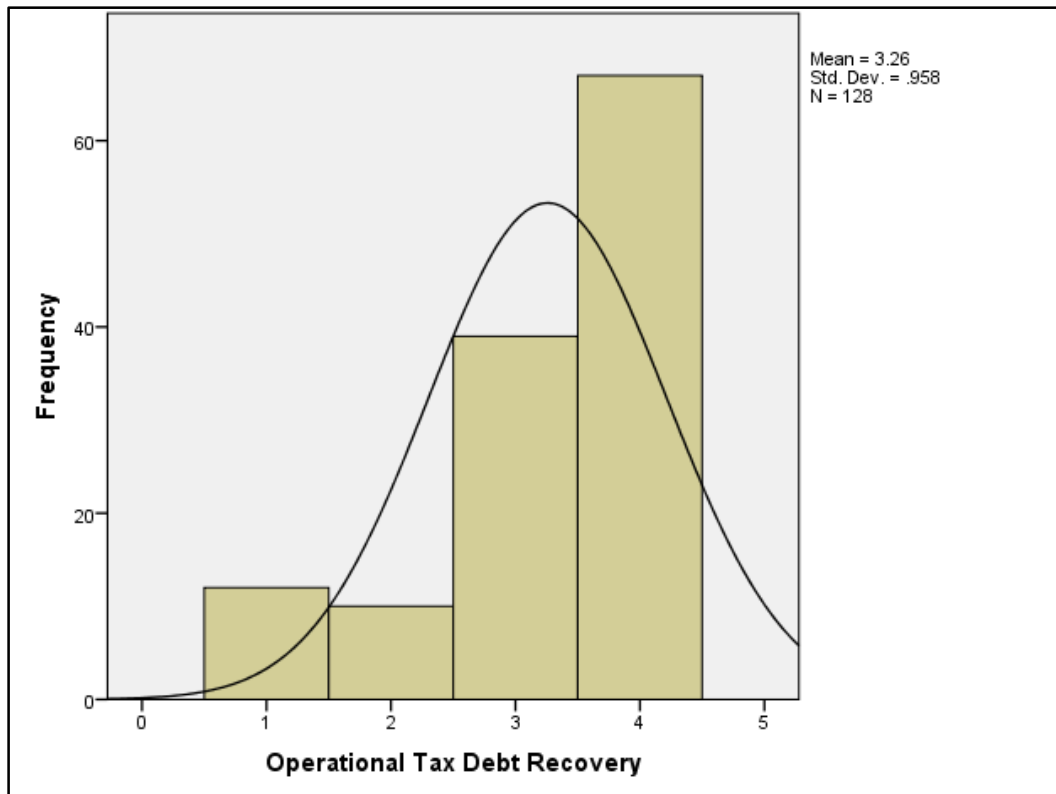
Source: Field Survey (2017)

4.5.7 Operational Debt Recovery

As shown in Table 4.3.7, 52.3% of the respondents rated the tool ‘operational tax debt recovery’ as very effective in the scale of 1-4 while 30.5% rated the tool as effective. The tool was considered by 7.8% and 9.4% of the respondents as ‘less effective’ and ‘not effective’ respectively.

Table 4.3.7 Rating of ‘Operational Tax Debt Recovery’ by the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Effective	12	9.4	9.4	9.4
	Less Effective	10	7.8	7.8	17.2
	Effective	39	30.5	30.5	47.7
	Very Effective	67	52.3	52.3	100.0
Total		128	100.0	100.0	



Source: Field Survey (2017)

Table 4.4 checks the mean, mode, median, skewness, kurtosis and standard deviation of the enforcement tools (independent variables). It is evident that the values for the median and mean of the independent variable are equal or close to each other. In addition, the values of skewness and kurtosis are between -2.00 and +2.00. This indicates that the variable data obeys the symmetric or normal distribution.

Table 4.4: Descriptive Statistics of the Enforcement Tools

		Improved Public Service	Training on Property Rating Structure	Reducing Compliance Costs	Social Pressure	Provision of Discounts & Waivers	Sanctions and Penalties	Operational Tax Debt Recovery
Sample Size (N)	Valid	128	128	128	128	128	128	128
	Missing	0	0	0	0	0	0	0
Mean		3.45	2.22	2.80	2.86	2.96	3.14	3.26
Median		4.00	2.00	3.00	3.00	3.00	3.00	4.00
Mode		4	2	3	4	3	4	4
Std. Deviation		0.83	1.09	0.94	1.20	0.93	1.01	0.96
Skewness		(1.44)	0.43	(0.21)	(0.47)	(0.69)	(0.94)	(1.20)
Kurtosis		1.21	(1.11)	(0.94)	(1.37)	(0.31)	(0.27)	0.43
Minimum		1	1	1	1	1	1	1
Maximum		4	4	4	4	4	4	4

Source: Field Survey (2017)

The means of the value ratings were computed for each tool in order to rank them according to their effectiveness as shown in Table 4.5. The table shows the mean ranking of effectiveness of each tool, the minimum and maximum value score for each tool and the standard deviation. The maximum value indicates the highest possible score awarded for each enforcement tool by the respondents while the minimum value indicates the lowest score. The standard deviation indicates the variations of the value score for each tool.

Table 4.5: Mean Rating of the Effectiveness of Enforcement Tools in Ensuring Compliance

Enforcement Tool	Mean Rating of Effectiveness (On a 4-point scale)	Minimum	Maximum	Standard Deviation
Improved Public Services	3.45	1	4	0.83
Operational Debt Recovery	3.26	1	4	0.96
Sanctions and Penalties	3.14	1	4	1.01
Provision of Discounts and Waivers on Interests & Penalties	2.96	1	4	0.93
Social Pressure eg publishing names of defaulters	2.86	1	4	1.20
Reducing Compliance Cost	2.80	1	4	0.94
Training on Property Rating Structure	2.22	1	4	1.09

Source: Field Survey (2017)

Based on the findings presented in Table 4.5, respondents (rateable property owners) considered the improved public service ($\bar{x}=3.45$) as the most effective tool of ensuring compliance in payment of rates. Improving public service motivates rateable property owners to pay the rates. Poor public service discourages them from complying in payment of rates.

Operational debt recovery was considered as the second most effective tool ($\bar{x}=3.26$). Operational debt recovery entails enforcement of rates payment through civil proceedings, garnering rents from rateable properties, seizure and sale of properties.

Respondents considered sanctions and penalties as third most effective tool of ensuring compliance in rates payment ($\bar{x}=3.14$). These include imposition of penalties for late payment and interest payments for outstanding property tax.

Provision of discounts and waivers on interests & penalties was also found to be effective in ensuring compliance in payment of rates ($\bar{x}=2.96$). This tool encourages rateable property owners to pay the outstanding rates excluding interests and penalties. Reducing compliance cost and social pressure eg publishing names of defaulters as tools of property rates enforcement were also considered effective at $\bar{x}=2.80$ and $\bar{x}=2.86$ respectively.

The study established that training on property rating structure as tool of ensuring enforcement was found to be ineffective. The mean rating of effectiveness of training on property rating structure as tool of ensuring enforcement was found to be at 2.22. This is below the population mean (2.5).

The study therefore identified the following tools to be effective in ensuring compliance in rates payment (in the order of priority):

1. Improved Public Services;
2. Operational Debt Recovery;
3. Sanctions and Penalties;
4. Provision of Discounts and Waivers on Interests & Penalties;
5. Social Pressure eg publishing names of defaulters;
6. Reducing Compliance Cost.

The above analysis using the population mean score did not conclusively isolate the effective tools. There is need to set the confidence level in order eliminate or minimize errors that might have occurred in the establishment of effectiveness of the tools. Two possible errors might have occurred in the process. These are type I error and type II error. In type I one error or alpha

error the researcher concludes that the enforcement tools are effective in ensuring compliance when actually they are not. The researcher may therefore reject the null hypothesis when it is true. On the other hand, type II or beta errors occurs when a certain variable is ineffective when it is actually effective. The null hypothesis is accepted when it is false.

The Z-test analysis was used to conclusively accept or fail to accept the null hypothesis. A lower confidence level of 95% was set in the Z – test analysis of the variables and the one-tail Z-test selected. The Z-score was calculated for each variable as shown in Table 4.6.

Table 4.6: The Calculated Z-score

Enforcement Tool	Mean Rating of Importance (On a 4-point scale)	Population mean	Standard Deviation	Sample size	Z score
Improved Public Services	3.45	2.50	0.83	128.00	12.95
Operational Debt Recovery	3.26	2.50	0.96	128.00	8.96
Sanctions and Penalties	3.14	2.50	1.01	128.00	7.17
Provision of Discounts and Waivers on Interests & Penalties	2.96	2.50	0.93	128.00	5.60
Social Pressure eg publishing names of defaulters	2.86	2.50	1.20	128.00	3.39
Reducing Compliance Cost	2.80	2.50	0.94	128.00	3.61

Source: Field Survey (2017)

The Z-score calculated for each variable was compared with Critical Z – value at the selected confidence level of 95% in a one tail Z – test which is **1.65** for this case. Where the Z-value calculated for each variable was greater than critical Z-value at the selected confidence level, the null hypothesis was rejected and conclusion made that enforcement tools are effective in ensuring compliance in rates payment as indicated in Table 4.7.

Table 4.7: Z- Test of Statistical Significance

Enforcement Tool	Critical Z- Value at 95% Confidence Level (One- Tail)	Calculated Z Value	Hypothesis Testing	Remarks
Improved Public Services	1.65	12.95	Fail to accept null hypothesis	Enforcement tool is effective in ensuring compliance
Operational Debt Recovery	1.65	8.96	Fail to accept null hypothesis	Enforcement tool is effective in ensuring compliance
Sanctions and Penalties	1.65	7.17	Fail to accept null hypothesis	Enforcement tool is effective in ensuring compliance
Provision of Discounts and Waivers on Interests & Penalties	1.65	5.60	Fail to accept null hypothesis	Enforcement tool is effective in ensuring compliance
Social Pressure eg publishing names of defaulters	1.65	3.39	Fail to accept null hypothesis	Enforcement tool is effective in ensuring compliance
Reducing Compliance Cost	1.65	3.61	Fail to accept null hypothesis	Enforcement tool is effective in ensuring compliance

Source: Field Survey (2017)

From the above analysis, six (6) enforcement roles had their calculated Z- scores being statistically greater than the Critical Z- value at the specified confidence level ie 95%. In all these tools, the null hypothesis (H_0) was rejected. A conclusion was made that the six enforcement tools are effective in ensuring compliance in rates payment.

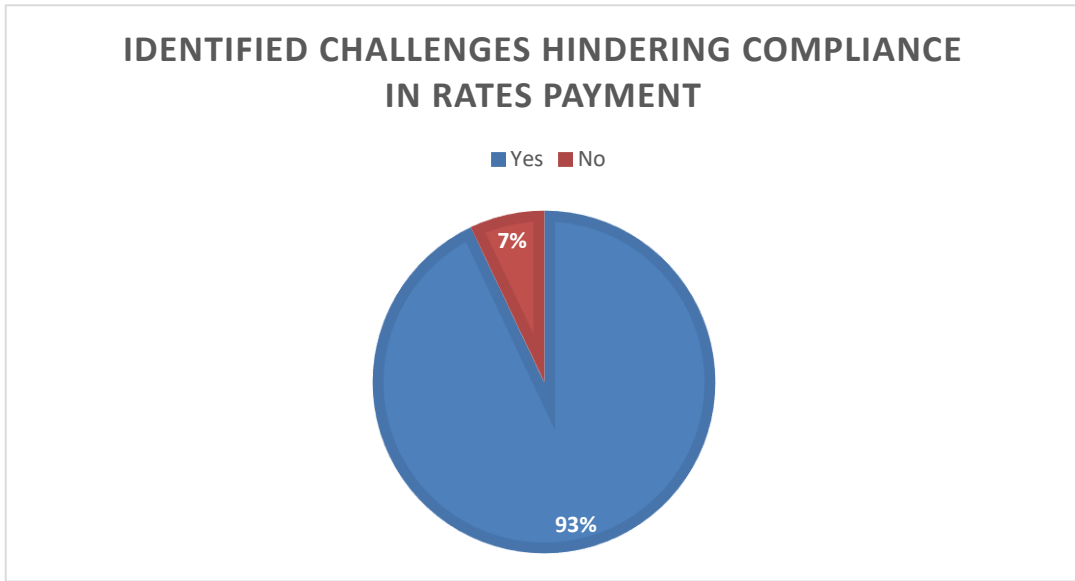
4.6 Challenges Hindering Compliance in Property Rates Payment in NCC

Out of the 128 respondents, 93 percent acknowledged the fact that they have identified challenges that hinder compliance in property rates payment in Nairobi City County as indicated in figure 4.5.

Some of the challenges hindering compliance in property rates payment in Nairobi City County, as identified by 93 percent or 117 out of 128 respondents, include: negative attitude of the public towards property rates and rates officials; unfair administration; discontentment with property rates administration; and complexities in understanding tax system and payment procedures.

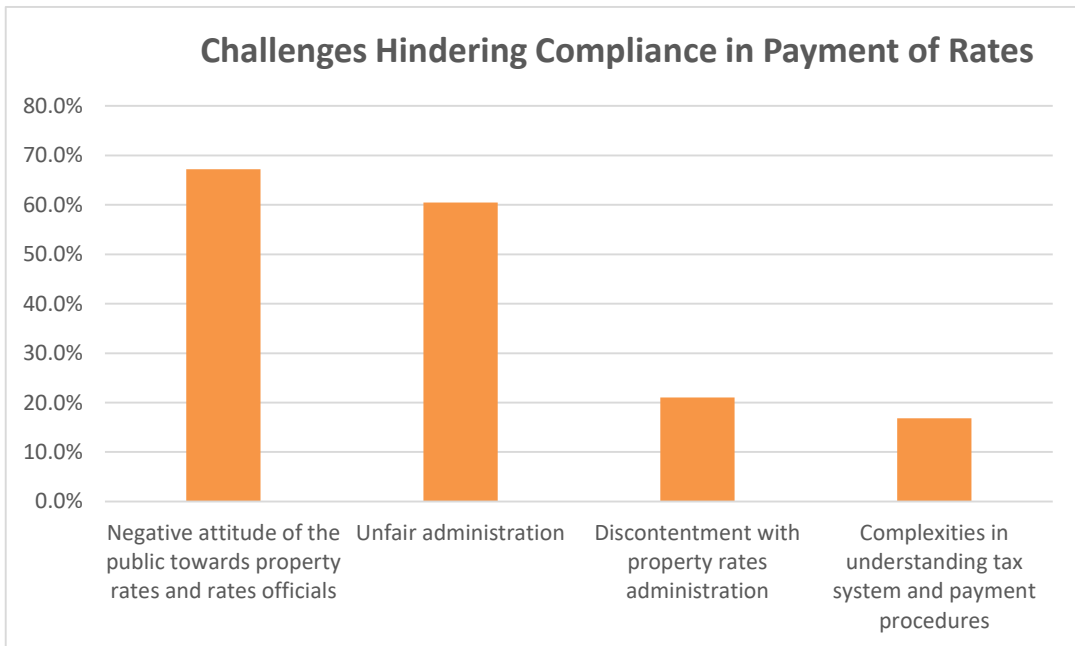
As shown in Table 4.6, out of the 117 respondents, 80 or 67.2 percent indicated that negative attitude of the public towards property rates and rates officials hinder compliance. A considerable number of rateable property owners dislike property rates officers because of their notorious behaviour of harassing defaulters.

Figure 4.5: Identification of Challenges Hindering Compliance in Rates Payment



Source: Field Survey (2017)

Figure 4.6: Challenges Hindering Compliance in Rates Payment



Source: Field Survey (2017)

Unfair administration was cited by 72 out of 119 or 60.5 percent of the respondents as a hindrance to compliance in rates payment indicated in Figure 4.6. Rateable property owners noted that enforcement of rates was being emphasized in some areas while others were left with huge outstanding taxes. The public institutions have bigger outstanding rates' balance than

private property owners. Enforcement efforts are focussed on private property owners leading to increasing size of the outstanding rates from public institutions.

The results indicate that 21.0 percent of the respondents felt that discontentment with property rates administration is a hindrance to compliance. Rateable property owners expressed their dissatisfaction with the way property rates were being utilized. The rates are not being utilized in provision of public services. Corruption in rates administration process affects efficiency in provision of public services thus discouraging rateable property owners from complying.

According to 16.8 percent of the respondents, complexities in understanding tax system and payment procedures hinder compliance in rates' payment. The property rates system was considered complex thus difficult to understand by some rateable property owners.

Other hindrances as outlined by respondents include: lack of public participation in the process of drafting policy and regulations on property rates (for example, review of rating rate from 17 percent to 34 percent of Unimproved Site Value of land as it appears in 1982 Valuation Roll in 2013 was done with limited public participation) and information breakdown between rateable property owners and rates' administrators.

Land Rates Collection and Enforcement Officers (Debt Collection Unit) cited the following challenges which hinder compliance and collection of outstanding property rates in Nairobi City County:

1. Outdated or incomplete fiscal cadastre. Some of the property numbers have changed yet the information is not updated on the system. This results into two different accounts for the same properties leading to difficulties in enforcement of rates.
2. Inadequate capacity. Land rates collection and enforcement officers (debt collection unit) indicated that inadequate training and resources restricts their ability to enforcement of rates to ensure fully compliance.
3. The enforcement officers indicated that the incentives given to investors by county and national governments which exempts them from paying property rates end up discouraging rateable property owners from complying.
4. Poor enforcement measures. The enforcement tools being utilized such as provision of discounts and waivers on property rates interest are have proved to be inefficient in ensuring fully and timely compliance.
5. Lack of political goodwill. The study revealed that a considerable number of rateable properties in prime location such as Nairobi CBD are owned by prominent and

influential politicians who often interfere with enforcement of property rates thus hindering compliance. Whenever the county officers seeks redress in courts of law of regarding the outstanding property rates, politicians use their influence to interfere with the process leading to delays and premature termination of the legal proceedings.

6. Hostility from rateable property owners. The study revealed that land rates collection and enforcement officers face hostility from rateable property owners who have negative attitude towards them.

4.7 Hypothesis Testing

The main objective of this study was to evaluate property rates collection and enforcement in devolved systems of governance. The study sought to determine property tax Collection Ratio (CR) in Nairobi City County; identify enforcement tools applicable in Nairobi City County; establish effectiveness of the property rates enforcement tools in ensuring fully compliance; and establish challenges facing property rates collection and enforcement in Nairobi City County.

The Null Hypothesis (H_0) was that improved public services offered by devolved systems of governance is not the most effective enforcement tool in ensuring fully compliance in payment of rates in Kenya while the Alternative Hypothesis (H_A) was that improved public services offered by devolved systems of governance is the most effective enforcement tool in ensuring fully compliance in payment of rates in Kenya.

From the results, it was established that improved public service as a tool of ensuring fully compliance in payment of rates had the highest mean value rating ($\bar{x}=3.45$) and biggest Z-score (12.95) (bigger than Critical Z – value at 95 per cent confidence level in a one tail Z – test. The Null Hypothesis is thus rejected and the Alternative Hypothesis is accepted.

4.8 Summary

This chapter has determined property tax Collection Ratio (CR) in Nairobi City County. The study also identified enforcement tools applicable in Nairobi City County. Effectiveness of the property rates enforcement tools in ensuring fully compliance has also been established. In addition, challenges facing property rates collection and enforcement in Nairobi City County have also been established.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the findings, discussions, conclusions and recommendations based from the responses from the field study. This research aimed at evaluating the effectiveness of property rates collection and enforcement in the Nairobi City County. The objectives of the study included:

1. To determine property tax Collection Ratio (CR) in Nairobi City County.
2. To identify tools of property rates collection and enforcement.
3. To establish effectiveness of the property rates collection and enforcement tools.
4. To establish challenges facing property rates collection and enforcement in Nairobi City County.

5.1 Summary of Major Findings

From the data analyzed, the study concludes that compliance rate in payment of property rates is very low in Nairobi City County. The compliance rates have been reducing over the last couple of years. Compliance in rates payment dropped from 16.93 percent in 2011/2012 to 6.65 percent in 2014/2015. The decline in compliance was most drastic between 2012/2013 and 2013/2014 (from 14.06 percent to 8.49 percent) because of devolution and a drastic increase of rating rate from 17 percent to 34 percent of Unimproved Site Value of land as it appears in 1982 Valuation Roll. The average compliance rate for the period under review is very low at 12.13 percent. This agrees with findings from land rates collection and enforcement officers (debt collection unit) who estimated that the compliance rate is below 20 percent rated as 'poor'.

The study identified various tools that are applicable in property rates' collection and enforcement in Nairobi City County. They include: improved public services; training on property rating structure; reducing compliance costs; social pressure; provision of discounts & waivers on property rates interest; sanctions and penalties; and operational tax debt recovery. These enforcement tools were identified by rateable property owners.

The study also sought to establish the effectiveness of the seven enforcement tools in ensuring fully compliance in payment of rates. The study found out established that six enforcement tools are effective in ensuring compliance in rates payment. These include: improved public services; operational debt recovery; sanctions and penalties; provision of discounts and waivers on interests & penalties; social pressure eg publishing names of defaulters; and reducing compliance cost. Provision of improved public services was rated to be most effective in encouraging rateable property owners to pay the rates. The study established that training on property rating structure as tool of ensuring enforcement is ineffective in ensuring payment of rates.

The study further established the challenges hindering compliance in property rates payment in Nairobi City County. On one hand, owners of rateable properties identified the following challenges that hinder compliance in property rates payment: negative attitude of the public towards property rates and rates officials; unfair administration; discontentment with property rates administration; complexities in understanding tax system and payment procedures; and lack of public participation in the process of drafting policy and regulations on property rates. On the other hand land rates collection and enforcement officers (debt collection unit) cited the following challenges which hinder compliance and collection of outstanding property rates in Nairobi City County: outdated or incomplete fiscal cadastre; inadequate capacity; the incentives given to investors by county and national governments which exempts them from paying property rates end up discouraging rateable property owners from complying; poor enforcement measures; lack of political goodwill; and hostility from rateable property owners.

5.2 Conclusions

The study revealed that the level of compliance in payment of rates is very low. The collection ratio is below 20 percent. The rate of compliance has been declining over the last couple of years. It is evident that the enforcement tools being applied in ensuring that property rates are paid promptly and fully continue to perform poorly. Over reliance of devolved systems of governance on transfers from the national government is evidenced by poor property rates collection and enforcement. The level of compliance in rates payment is worrying therefore necessitating the need to consider more effective tools of property rates collection and enforcement.

The research established that the most dominant tools of property rates' collection and enforcement in Nairobi City County include provision of discounts and waivers on property rates interest; social pressure eg publishing names of defaulters; sanctions and penalties; and

provision of interest free period from January to March every year. These tools are reactive. Even though the enforcement tools currently being utilized by Nairobi City County are effective, the findings indicate that they are not the best in ensuring enforcement. The study established that provision of improved public services and operational debt recovery are the most effective in ensuring compliance in rates payment. The property rates administration officers should focus the collection and enforcement efforts to the most effective tools.

It is clear that Nairobi City County government is partly to be blamed for poor rate of compliance. It is vital to encourage the use of most effective enforcement tools in order to improve the property rates collection ratio. High compliance ensures that resources required for provision of public services are readily available. Provision of public services improves demand and value for properties thus benefiting the rateable property owners.

5.3 Recommendations

Poor compliance by rateable property owners is not attributed to the legal basis since there are no legal constraints to improved collection and enforcement of property rates. The primary cause of poor collection is weak administration and political interference. Based on findings of the study, it is hereby deemed necessary to make recommendations that would help in improving compliance in payment of rates.

1. Provision of Improved Public Services

The study established that the provision of improved public service is the most effective tool of ensuring compliance in payment of property rates. Poor public service discourages them from complying in payment of rates. Provision of improved public services boosts rateable property owners' morale leading to improved compliance.

Property rates is classified as a benefit tax and thus need to ensure that the revenues collected provide visible local public services (Petio, 2013). The study therefore recommends that the reforms on property rates should focus on administration changes to improve local public service in order to encourage compliance in rates payment. The rates administrators should ensure that all the stakeholders are satisfied with the administration process and use of revenue from rates.

2. Integrated Computer Assisted Property Rates Administration System (ICAPRAS)

The current land rates billing system in Nairobi City County entails obtaining land rating data in hard copies from valuation department followed by manual entry into rating system. The process is labour intensive, costly, slow and time consuming. It is also prone to many errors

and anomalies thus being ineffective and inefficient. The study established that the rates administration system in Nairobi City County is characterized by outdated or incomplete fiscal cadastre.

The study recommends use of an Integrated Computer Assisted Property Rates Administration System to allow for data linkage between the land valuation for rating and the rates computations, billing, payment and reconciliation systems. The system will ensure efficiency, effectiveness, adequacy by capturing all rateable properties, consistency and accuracy in property rating. The use of an Integrated Computer Assisted Property Rates Administration System will also ensure prompt update of fiscal cadaster leading to accurate billing and easier enforcement of outstanding property rates. The system should also be able to capture changes and update subdivisions and newly registered properties.

For this to be achieved, there is need to integrate valuation system (Computer Aided Mass Appraisal (CAMA)); valuation appeal system; valuation rolls and supplementary valuation rolls; billing system, payment system and enforcement mechanism.

Development of administrative procedures, taxation systems and technological applications in Indonesia's 1986 property tax transformation was done in consideration of the available institutional capacity. These tax reforms are considered to be one of the most successful globally. This study recommends that the new system should be developed in consideration of the existing institutional and administrative capacity of Nairobi City County to facilitate easy implementation. This ought to be with the intention that the rating administration systems will evolve in accordance to development capacity. This will ensure effective implementation and sustainability of the system.

3. Capacity Building

The study established that inadequate capacity is one of the challenges hindering enforcement of property rates. The land rates collection and enforcement office (debt collection unit) in Nairobi City County is not only understaffed but also lacks adequate logistical capacity. The study therefore recommends that the county government should provide adequate and well trained staff to enforcement rates payment. There is urgent need to train the existing enforcement officers to improve their ability to deliver the required results. It is also recommended that county government should provide the logistical support required in enforcement of rates.

4. Mobilize Political Support

The success of rates administration is greatly influenced by political acceptability. It is impossible to implement a system that is not acceptable to the taxpayers or political class. The study established that one of the challenges hindering property rates enforcement is political interference in the legal proceedings instituted against non-compliance. This is common in other developing countries.

Indonesia's 1986 property tax transformation entailed organization of a strong political, management and operational support. The robust political leadership behind the larger tax reform aided in supporting, commencing and sustaining the necessary administrative reforms. Nairobi City County should encourage politicians to allow land rates administrators to levy and collect property rates without hindering them. Delinking property rates from politics, will improve collections thus enhancing their role in funding the devolved systems of governance. The politicians ought to assist in informing the rateable property owners that it is impractical for national government to fully fund the operations of county governments.

There is need to for Nairobi City County to organize a strong political, management and operational support in order to facilitate rating reforms. The robust political leadership should be mobilized in order to commence, support and sustain the necessary administrative reforms.

5.4 Limitations of the Study

Several challenges were encountered while understating the research. These limitations encountered include:

- a) Some questionnaires were not returned by the respondents.
- b) Limitation of time necessary to conduct the survey.
- c) Limited access to rateable property owners who were key respondents.
- d) The study was carried out under limited financial resources.

5.5 Areas of Further Research

During the field study and literature review, the researcher identified the following areas that call for further research:

1. Investigation into the Effects of Devolution on Property Rates Compliance.
2. Application of GIS in Property Rates Collection and Enforcement in Nairobi City County.
3. Examination of the Role of Property Rates in Providing Local Public Services.

BIBLIOGRAPHY

Ahmad, E., Brosio, G. and Pöschl, C. (2014) Local Property Taxation and Benefits in Developing Countries - Overcoming Political Resistance? Asia Research Centre (ARC), United Kingdom.

Akinwunmi, A. (2009) An Investigation into the Factors Affecting Housing Finance Supply in Emerging Economies: A Case Study of Nigeria, Unpublished PhD Thesis. School of Business, University of Wolverhampton.

Akumu, O. A. K (1999) Land Taxation Policy in Kenya. Department of Lands, Kenya.

Almy, Richard. (2001), A Survey of Property Tax Systems in Europe. Department of Taxes and Customs, Ministry of Finance Republic of Slovenia. Page 10-11.

Babbie, E. (2001) The Practice of Social Research (9th Edition). Wadsworth Thomson Learning Press, Belmont, CA USA.

Bahl, R. (2009) Property Tax Reform in Developing and Transition Countries, Fiscal Reform and Economic Governance Project, United States Agency for International Development, USA.

Bahl, R. and Martinez, V. J. (2006). The Property Tax in Developing Countries: Current Practice and Prospects. International Studies Working Paper 06-37, December 2006.

Bahl, R. and Vazquez, J.M. (2008) The Determinants of Revenue Performance. Department of Economics, Georgia State University, USA.

Bahl, Roy, Jorge Martinez-Vazquez and Joan Youngman (eds) (2008a), Making the Property Tax Work: Experiences in Developing and Transitional Countries, Cambridge. MA: Lincoln Institute of Land Policies, USA.

Barako, D. J. and Shibia, A. G. (2015) Fiscal Decentralization and Determinants of Property Tax Performance in Kenya: Cross-County Analysis. Kenya Institute for Public Policy Research and Analysis, Nairobi.

Bhartia, H. L. (2009). Public Finance. 14th Edition, Vikas Publishing House PVT Ltd, New Delhi.

Bird, M., R and Slack, E. (2002) A Review: Land and Property Taxation Around the World, New York.

- Boamah, N. A. (2013) Constraints on Property Rating in the Offinso South Municipality of Ghana. *Commonwealth Journal of Local Governance* Issue 13/14: November 2013, Page 77-89.
- Bogen, K. (1997) *The Effect of Questionnaire Length on Response Rates -- A Review of The Literature*. U.S. Bureau of The Census.
- Braid, R. M. (2005) Tax Competition, Tax Exporting and Higher-Government Choice of Tax Instruments for Local Governments, *Journal of Public Economics*. 89, pp. 1789-1821.
- Brunori, D. et al (2006) *The Property Tax: Its Role and Significance in Funding State and Local Government Services*. George Washington Institute of Public Policy (GWIPP), Working Paper Number 27, George Washington University.
- Carlson, R. H. (2004) *A Brief History of Property Tax*. IAAO Conference on Assessment Administration in Boston, Massachusetts.
- City Council of Nairobi (2005) *A Guide of Nairobi City Development Ordinances and Zones*. Department of City Planning.
- Commission on Revenue Allocation. (2013). *Kenya county fact sheets 2nd edition*. Nairobi: Commission on Revenue Allocation.
- Fjeldstad, O. H and Kari Heggstad, K (2012) *Local Government Revenue Mobilization in Anglophone Africa*. WP 2012: 6, Chr. Michelsen Institute (CMI).
- Fjeldstat, O. H., Katera, L. and Ngalewa, E. (2008) *Outsourcing Revenue Collection: Experience from Local Government Authorities in Tanzania*. Research on Poverty Alleviation (REPOA).
- Gay, L. R. (1981) *Educational Research: Competences for Analysis and Application*. London: Charles E. Mairill Publishing Company.
- Government of Kenya (2010) *Constitution of Kenya*. Government Printer, Nairobi.
- Government of Kenya (2010) *Urban Areas and Cities Act*. Government Printer, Nairobi.
- Government of Kenya (rev1984) *Valuation for Rating Act, Chapter 266 of the Laws of Kenya*. Government Printer, Nairobi.

- Government of Kenya (rev1986) Rating Act, Chapter 267 of the Laws of Kenya. Government Printer, Nairobi.
- Government of Kenya (2016) Land Value Index (Amendment) Bill, 2016 Government Printer, Nairobi.
- Government of Kenya, Economic Survey 2016, Kenya National Bureau of Statistics. Government Printer, Nairobi.
- Hefferan, M. J. and Boyd. T. (2010) Property Taxation and Mass Appraisal Valuations in Australia-Adapting to a New Environment, *Property Management*, 28 (3) 149-162.
- Heiman, G. W. (2001) *Understanding Research Methods and Statistics: An Integrated Introduction for Psychology*. Second edition. Houghton Mifflin Company, New York.
- Ikpe et al, (2011) Improving Construction Health and Safety: Application of Cost – Benefit for Accident Prevention. *International Journal of Construction Management*, Vol 11, No. 1:19-35, 2011.
- James and Alley (2004) Tax Compliance, Self-Assessment and Tax Administration. *Journal of Finance and Management in Public Services*. Volume 2, Number 2.
- Kamba, A. (2007) Property Tax Reforms: A Tool for Improvements in Urban Services Delivery. The Case of Kampala City Council (Uganda). Master’s Programme in Urban Management and Development, Institute for Housing and Urban Development Studies (IHS), Erasmus University Rotterdam.
- Kamunya, R. (2015) Web-based Spatial Management Information System for Institutions of Justice in Nairobi City County. Unpublished Masters Thesis. Department of Geospatial & Space Technology, University of Nairobi.
- Karanja, J. N. (2004) Unimproved Site Value Rating Versus Capital Value Rating: An Evaluation of Nairobi City Council’s Rating System. Unpublished Thesis. Department of Land Development, University of Nairobi.
- Kelly, R (2002) *Property Taxation in Kenya*: Duke University.
- Kelly, R (2003) *Property Taxation in Indonesia: Challenges from Decentralization*. Lincoln Institute of Land Policy Working Paper.

- Kelly, R. (1998) Designing Property Tax Reform Strategies in Developing Countries: An Analytical Framework Applied to Kenya, Harvard Institute for International Development, Working Paper Series, Harvard University, Cambridge, Massachusetts, United States, Page 1-31.
- Kelly, R. (2000a) Designing a Property Tax Reform Strategy for Sub-Saharan Africa: An Analytical Framework Applied to Kenya. Public Budgeting and Finance; Winter, 2000.
- Kelly, R. (2000b). Property Taxation in East Africa: The Tale of Three Reforms. Lincoln Institute of Land Policy Working Paper presented at the 92nd Annual Conference of the National Tax Association, October 24-26, 1999, Atlanta, Georgia.
- Kelly, R. (2003). Property Taxation in Indonesia: Challenges from Decentralization. Lincoln Institute of Land Policy Working Paper.
- Kelly, R. (2013a) 'Property Tax Collection and Enforcement' in A Primer on Property Tax Administration and Policy, Page141-171. Blackwell Publishers Ltd, West Sussex.
- Kelly, R. (2013b) Making the Property Tax Work, Page141-171. International Center for Public Policy Working Paper 13-11.
- Kieti, R. M. (2015) Urban Housing Affordability in Kenya. Unpublished PhD Thesis. Department of Real Estate and Construction Management, University of Nairobi.
- Lall, S. V. and Deichmann, U. (2006) Fiscal and Distributional Implications of Property Tax Reforms in Indian Cities, Working Paper No. 39 April 2006, National Institute of Public Finance and Policy, New Delhi.
- Malme, J. H. and Youngman, J. M. (2001) The Development of Property Taxation in Economies in Transition: Case Studies from Central and Eastern Europe. Lincoln Institute of Land Policy, Washington, D.C.
- Mark, S. R. (2006) Statistics for Social Sciences (Third Edition). Sage Publications, London.
- Mbeche, I. M. (2004) Sampling Methods, Research Design, Data Collection and Analysis: A Training Manual. United Nations Centre for Regional Development (UNCRD) Textbook Series No. 12. UNON Print Shop.
- McCluskey, W. (1991), Comparative Property Tax System: Avebury Academy Publishing Group. London, England.

- McMillan, J. H. & Schumacher, S. (1984). *Research in Education: A Conceptual Introduction*. Boston: Little, Brown and Company.
- Mugenda, A.G. and Mugenda, O.M. (2012) *Research Methods Dictionary*. ATS Press, Nairobi.
- Mugenda, O. M and Mugenda, A. G (1999) *Research Methods*. Acts Press, Nairobi.
- Municipal Development Programme, *Property Tax in Eastern and Southern Africa: Challenges and Lessons Learned*, Harare, Zimbabwe: Municipal Development Programme 1996. Working Paper No. 2
- Murigu J. (2005) ‘’An Analysis of the Decision-Making Criteria for Investing in Commercial Real Estate in Kenya’’ PhD. (Land Development). Thesis, Department of Land Development, University of Nairobi.
- Nairobi City Council (2005) *A Guide of Nairobi City Development Ordinances and Zones*. Department of City Planning.
- Nairobi City Council, NCC, (1950), *Nairobi Jubilee History 1900-1950*. City Hall, Nairobi.
- Nairobi City County, NCC, (2014) *Nairobi County Integrated Development Plan*. Unpublished Paper.
- NCC (2015) *Nairobi City County Finance Act*. Nairobi County.
- Ndunda, J. M., Ngahu, S. T. and Wanyoike, D. (2015) *Analysis of Factors Influencing Optimal Revenue Collection by County Governments in Kenya A Case of Nakuru County*. *International Journal of Economics, Commerce and Management United Kingdom*, Vol. III, Issue 5, May 2015.
- Petio, M. K. (2013) *Role of the Land Valuation Division in Property Rating by District Assemblies in Ghana's Upper East Region*. Bolgatanga Polytechnic Ghana. *Commonwealth Journal of Local Governance*, Issue 12: May 2013.
- Plimmer, F. and McCluskey, W. (2010) *The Basis and Administration of the Property Tax: What can be learned from International Practice?* FIG Congress 2010, Sydney, Australia.
- Rukwaro (2016) *Proposal Writing in Research*. ARTS Press, Nairobi, Kenya.

- Sepulveda, C. and Vazquez, J. M. (2012) Explaining Property Tax Collections in Developing Countries: The Case of Latin America. Department of Economics, Georgia State University, USA.
- Syagga, P. M. (2015) Property Taxation in Kenya. Unpublished Paper Presented During National Conference on County Own Source Revenue Enhancement. Department of Real Estate and Construction Management, University of Nairobi.
- Syagga, P. M. and Olima, W.H.A (1996) Rating System in Kenya: Evolution, Constraints and Potentials. Journal of Property Tax Assessment and Administration. An International Journal for Research in Property Tax. Vol. 2, No. 1.
- Talukhaba, A. (1999) An Investigation into the Factors Causing Construction Projects Delays in Kenya. Unpublished PhD Thesis, School of Business, University of Nairobi.
- Torgler, B. and Schaffner M. (2007), Causes and Consequences of Tax Morale: An Empirical Investigation, Center for Research in Economics, Management and the Arts (CREMA), Working Paper No. 2007 - 11.
- Umar, A.M., Kasim, R and Martin, D. (2012) An Overview of Property Tax Collection as A Tool for A Sustainable Local Government Reform in Malaysia. Faculty of Technology Management and Business, University of Tun Hussein Onn, Malaysia.
- UN-HABITAT (2011) Land and Property Tax: A Policy Guide. UNON, Publishing Services Section, Nairobi, Kenya.
- United Nations Human Settlements Programme, UN-Habitat, (2011) Innovative Land and Property Taxation. UNON Publishers, Nairobi.
- United Republic of Tanzania (1983) The Urban Authorities (Rating) Act. Dar es Salaam: Government Printer.
- US Census Bureau. 2013 State and Local Summary Table by Level of Government and by State. State & Local Government Finance, USA.
- Wallis, J. J (2000) History of the Property Tax in America, State Tax Notes: 1883-1898, USA.
- World Bank (1992) Kenya Local Government Finance Study, Washington D.C.

APPENDIX

QUESTIONNAIRE FOR OWNERS OF RATEABLE PROPERTIES

Preamble

Dear Respondent,

My name is AYUB NABURI, a final year student in the University of Nairobi pursuing Masters of Arts in Valuation and Property Management. I would like to request your assistance in data collection for my Research Titled: **An Evaluation of Property Rates Collection and Enforcement in Devolved Systems of Governance. Case Study: Nairobi City County.** The information is for academic purposes only and will be treated with the strictest confidentiality. Kindly, answer the questions that follow by ticking the appropriate option (if provided) or writing unrestrictedly for open-ended questions. Please answer all questions freely and objectively. Your assistance and cooperation will be highly appreciated.

SECTION A: GENERAL INFORMATION

1. Property location:.....

2. Type of the property

Commercial

Residential

Industrial

3. a) Are you exempted from paying property rates to the city county?

Yes

No

b) If no, do you have any outstanding property rates?

Yes

No

c) If yes in 3(b) above please give reasons why you have not met this statutory obligation

.....
.....
.....

SECTION B: PROPERTY RATES ENFORCEMENT TOOLS

4. Which of these tools are applicable in property rates collection and enforcement in Nairobi City County?

- Improved Public Services
- Training on Property Rating Structure
- Reducing Compliance Costs
- Social Pressure eg. Publishing names of defaulters
- Provision of Discounts and Waivers on Property Rates Interest
- Sanctions and Penalties
- Operational Tax Debt Recovery

5. From the enforcement tools you have listed in Section 4 above, which do you consider effective in ensuring fully compliance in payment of property rates? Rank in a scale of 1, 2, 3 and 4 (tick where applicable). **KEY 1= Not Effective; 2= Less Effective; 3= Effective; 4= Very Effective.**

	Rates Enforcement Tools	1	2	3	4
A	Improved Public Services				
B	Training on Property Rating Structure				
C	Reducing Compliance Costs				
D	Social Pressure eg. Publishing names of defaulters				
E	Provision of Discounts and Waivers on Property Rates Interest				
F	Sanctions and Penalties				
F	Operational Tax Debt Recovery				

SECTION C: HINDRANCES TO COMPLIANCE IN PROPERTY RATES PAYMENT

6. Have you identified any challenges that hinder compliance in property rates payment in Nairobi City County?

- Yes
- No

7. Which of the following hindrances affect compliance in payment of property rates in Nairobi City County?

- Negative attitude of the public towards property rates and rates officials
- Unfair administration
- Discontentment with property rates administration
- Complexities in understanding tax system and payment procedures

Please specify any other challenge.....

.....
.....
.....

8. What would you propose to improve rates collection levels by the County government?

.....
.....
.....

End of the questionnaire

Thank you for filling in the questionnaire.

QUESTIONNAIRE TO LAND RATES COLLECTION AND ENFORCEMENT OFFICERS (DEBT COLLECTION UNIT)

Preamble

Dear Respondent,

My name is AYUB NABURI, a final year student in the University of Nairobi pursuing Masters of Arts in Valuation and Property Management. I would like to request your assistance in data collection for my Research Titled: **An Evaluation of Property Rates Collection and Enforcement in Devolved Systems of Governance. Case Study: Nairobi City County.** The information is for academic purposes only and will be treated with the strictest confidentiality. Kindly, answer the questions that follow by ticking the appropriate option (if provided) or writing unrestrictedly for open-ended questions. Please answer all questions freely and objectively. Your assistance and cooperation will be highly appreciated.

1. What is the estimated percentage of compliance in land rates payment in Nairobi City County?

- 70% to 100%
- 50% to 70%
- 20% to 50%
- Below 20%

2. How do you rate the performance of debt collection unit in ensuring prompt payment of outstanding property/land rates arrears?

- Excellent
- Very Good
- Good
- Fair
- Poor

3. Which challenges do you encounter in the process of collecting outstanding property/land rates arrears?

.....

.....

.....

.....

.....

4. Compliance in property rates payment is faced with various hindrances. Which of the following hindrances affect compliance in payment of property rates in Nairobi City County?

- Outdated or incomplete fiscal cadastre
- Inadequate capacity
- Local and national governments giving property rates incentives to investors thus discouraging rateable property owners from complying.
- Poor enforcement measures
- Lack of political goodwill

Please specify any other challenge.....
.....
.....
.....

5. What measures has the county government taken to help in improving collection of outstanding property/land rates arrears?

.....
.....
.....
.....
.....
.....

6. Please list any other measures that you think would assist in improving the land rates collection levels?

.....
.....
.....
.....
.....
.....

End of the questionnaire. Thank you for filling in the questionnaire.

QUESTIONNAIRE TO THE CHIEF ACCOUNTANT RATES

Preamble

Dear Respondent,

My name is AYUB NABURI, a final year student in the University of Nairobi pursuing Masters of Arts in Valuation and Property Management. I would like to request your assistance in data collection for my Research Titled: **An Evaluation of Property Rates Collection and Enforcement in Devolved Systems of Governance. Case Study: Nairobi City County.** The information is for academic purposes only and will be treated with the strictest confidentiality. Kindly, answer the questions that follow by ticking the appropriate option (if provided) or writing unrestrictedly for open-ended questions. Please answer all questions freely and objectively. Your assistance and cooperation will be highly appreciated.

1. State the estimated number of:
 - a) Rateable properties.....
 - b) Total number of properties in Nairobi.....

2. Please provide data on how property rates collection has performed in Nairobi City County from 2010 to 2015 by filling the following table.

Year	Rates Receivable Per Annum (Kshs)	Total Rates Collected Per Annum (Kshs)	Outstanding Balance (Kshs)	Annual Own Revenue (Kshs)	NCC Source (Kshs)	NCC Annual budget (Kshs)	Total
2010/2011							
2011/2012							
2012/2013							
2013/2014							
2014/2015							

Please comment on this data.....

.....

.....

.....

.....

3. Which of the following enforcement tools is applicable in Nairobi City County in ensuring fully compliance in property rates payment?

- Improved Public Services
- Training on Property Rating Structure
- Reducing Compliance Costs
- Social Pressure eg. Publishing names of defaulters
- Provision of Discounts and Waivers on Property Rates Interest
- Sanctions and Penalties
- Operational Tax Debt Recovery

Please indicate any other property rates enforcement tool used in Nairobi City County

.....
.....
.....

4. What is your level of satisfaction with compliance on property rates collection and enforcement in Nairobi County?

- Not Satisfied
- Less Satisfied
- Satisfied
- Very Satisfied

5. What challenges face compliance in payment of property rates in Nairobi City County?

.....
.....

6. How has the Nairobi City County addressed these challenges?

.....
.....

7. Any comment/ suggestions on property rate enforcement in Nairobi County?

.....
.....
.....

End of the questionnaire. Thank you for filling in the questionnaire.



UNIVERSITY OF NAIROBI

DEPARTMENT OF REAL ESTATE AND CONSTRUCTION MANAGEMENT

P.O. Box 30197, 00100 Nairobi, KENYA, **Tel: No. +254-020-491 3531**

E-mail: dept-recm@uonbi.ac.ke

Ref: B92/81955/2015

Date: 10th May, 2017

To Whom it May Concern

Dear Sir/Madam

RE: AYUB ODANYA NABURI

This is to certify that the above named is a second year student in the Department of Real Estate and Construction Management pursuing a masters degree in Valuation & Property Management.

He is carrying out a research entitled "**An Evaluation of Property Rates Collection and Enforcement in Devolved Systems of Governance. Case Study: Nairobi City County**" in partial fulfillment of the requirements of the degree programme.

The purpose of this letter is to request you to allow him access any kind of material he may require to complete his research. The information will be used for research purposes only.

Please accord him the necessary assistance.

CHAIRMAN
DEPARTMENT OF REAL ESTATE
AND CONSTRUCTION MANAGEMENT
UNIVERSITY OF NAIROBI

Dr.-Ing. C.M. Mbatha

Ag. Chairman & Senior Lecturer

Dept. of Real Estate and Construction Management



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471,
2241349,3310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/17/55869/17353**

Date: **13th June, 2017**


Ayub Odanya Naburi
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“An evaluation of property rates collection and enforcement in devolved systems of governance. case study: Nairobi City County,”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **13th June, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.




GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

CONDITIONS
1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officer will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two (2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.


REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation
RESEARCH CLEARANCE PERMIT
Serial No. A 14322
CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MR. AYUB ODANYA NABURI
of UNIVERSITY OF NAIROBI, 28272-200
Nairobi, has been permitted to conduct
research in Nairobi County

Permit No : NACOSTI/P/17/55869/17353
Date Of Issue : 13th June, 2018
Fee Received :Ksh 1000

on the topic: AN EVALUATION OF
PROPERTY RATES COLLECTION AND
ENFORCEMENT IN DEVOLVED SYSTEMS
OF GOVERNANCE. CASE STUDY: NAIROBI
CITY COUNTY.

for the period ending:
13th June, 2018



Applicant's
Signature

Director General
National Commission for Science,
Technology & Innovation