EFFECT OF REVENUE COLLECTION STRATEGIES ON FINANCIAL PERFORMANCE OF COUNTY GOVERNMENTS IN KENYA: A CASE OF SELECTED COUNTIES

ANTHONY MATIRU WAHOME

POST GRADUATE DIPLOMA
(TAX ADMINISTRATION)

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

2018
EFFECT OF REVENUE COLLECTION STRATEGIES ON FINANCIAL PERFORMANCE OF COUNTY GOVERNMENTS IN KENYA: A CASE OF SELECTED COUNTIES

ANTHONY MATIRU WAHOME

A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE, SCHOOL OF BUSINESS IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF POST GRADUATE DIPLOMA IN TAX ADMINISTRATION AT JOMO KENYATTA UNIVERSITY OF SCIENCE AND TECHNOLOGY

2018
DECLARATION

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

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

Signature                          Date

HDB336-C016-2251/2016

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

Wanja Wangondu

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

Signature                          Date
ACKNOWLEDGEMENT

I thank God for giving me good health during my project. I wish to extend my sincere gratitude to my supervisor, Miss Wanja Wang’ondu, for her guidance in every step of the project. Lastly I wish to thank my family for their continued support throughout my course.
TABLE OF CONTENTS

DECLARATION .......................................................................................................................... iii

ACKNOWLEDGEMENT ........................................................................................................ iv

LIST OF TABLES .................................................................................................................... viii

LIST OF FIGURES ................................................................................................................ ix

ACRONYMS ............................................................................................................................ x

DEFINITION OF TERMS ........................................................................................................ xi

ABSTRACT ............................................................................................................................... xi

INTRODUCTION .................................................................................................................... 1

1.1 Background ..................................................................................................................... 1

1.2 Statement of the Problem .............................................................................................. 5

1.3 Objective ......................................................................................................................... 7

  1.3.1 General Objective .................................................................................................... 7

  1.3.2 Specific Objectives ................................................................................................. 7

1.4 Research Questions ........................................................................................................ 7

1.5 Justification .................................................................................................................... 8

1.6 Scope ................................................................................................................................ 8

1.7 Limitations ....................................................................................................................... 9

CHAPTER TWO ..................................................................................................................... 10

LITERATURE REVIEW .......................................................................................................... 10

2.1 Introduction .................................................................................................................... 10

2.2 Theoretical Review ....................................................................................................... 10

2.3 Empirical Review ......................................................................................................... 12

2.4 Conceptual Framework ................................................................................................. 19
2.5 Critiques of existing literature relevant to the study........................................... 19
2.6 Summary.................................................................................................................. 20
2.7 Research Gap ......................................................................................................... 21

CHAPTER THREE ........................................................................................................ 22
RESEARCH METHODOLOGY ..................................................................................... 22
3.1 Research Design ..................................................................................................... 22
3.2 Population................................................................................................................ 22
3.3 Sampling Frame ...................................................................................................... 23
3.4 Sample and Sampling Techniques ......................................................................... 23
3.5 Instruments ............................................................................................................. 24
3.6 Data Collection Procedures .................................................................................. 24
3.7 Pilot Test .................................................................................................................. 25
    3.7.1 Validity of Research Instruments ..................................................................... 25
    3.7.2 Reliability of Research Instrument ................................................................. 25
3.8 Data Processing and Analysis .............................................................................. 25

CHAPTER FOUR .......................................................................................................... 27
RESULTS AND ANALYSIS ......................................................................................... 27
4.1 Introduction.............................................................................................................. 27
4.2 Response Rate ....................................................................................................... 27
4.3 Reliability of Research Instrument ...................................................................... 28
    4.4.1 Gender ............................................................................................................. 29
    4.4.2 Age group ........................................................................................................ 29
    4.4.3 Work Period .................................................................................................... 30
    4.4.4 Effectiveness of revenue collection strategies ............................................... 30
LIST OF TABLES

Table 3.1 Target Population ................................................................. 21
Table 3.2 Sample Size Construction ..................................................... 22
Table 4.1 Response Rate ........................................................................ 27
Table 4.2 Combined Reliability analysis .................................................. 28
Table 4.3 Age Group ............................................................................. 29
Table 4.4 E-payment system .................................................................. 32
Table 4.5 Penalty Waiver ...................................................................... 37
Table 4.6 Secondary data on Penalty waiver .......................................... 38
Table 4.7 Agency Notice ........................................................................ 40
Table 4.8 Secondary data on agency notice ............................................ 41
Table 4.9 Model Summary .................................................................... 42
Table 4.10 ANOVAs Analysis ................................................................. 43
Table 4.11 Coefficients ........................................................................ 43
LIST OF FIGURES

Figure 2.1 Conceptual Framework .................................................................18

Figure 4.1 Gender ..........................................................................................29

Figure 4.2 Work Period ..................................................................................30

Figure 4.3 Effectiveness of revenue collection strategies .................................31

Figure 4.4 Nairobi City County- E-payment data .............................................34

Figure 4.5 Kiambu County E-payment data ......................................................35

Figure 4.6 Machakos County E-payment system .............................................36
ACRONYMS

IFMIS - Integrated Financial Management Information System

KCG - Kiambu County Government

KRA - Kenya Revenue Authority

MCG - Machakos County government

NCC - Nairobi City County

PPP - Public Private Partnership

RARMP - Revenue Administration Reform and Modernization Program

RBV - Resource Based View
DEFINITION OF TERMS

Compliance  This is the act or process of adhering to already set rules and regulations (Fjeldstad & Haggstad, 2012)

E-payment  This is the process of using electronic system to compensate for services or goods (Fjeldstad & Haggstad, 2012)

Excise duty  This is type of tax paid on production or sale of specific good. It is also referred to as tax on goods produced for sale (Emezi, 2014).

Financial performance  This is the measure of how well public sector uses the already available resources to enhance service delivery.

Full disclosure  This is the process of providing full information based on legal requirements (Bernanke, 2011)

Revenue collection  This is the process of accounting for income or in this case the process by which the public sector uses to accumulate revenue from various sources (Bernanke, 2011)

Sentiment  This is defined as attitude towards something of through about a certain situation (Emezi, 2014)
ABSTRACT
The purpose of this study was to investigate the effects of revenue collection strategies on financial performance by the county governments in Kenya. The specific objectives of the study were to determine effects of E-payment system, penalty waiver and agency notice on financial performance of the county government. In research methodology, the study focused on descriptive research design where a target population of 334 respondents was retrieved from employees in revenue collection departments (middle level management) in Nairobi County Government, Kiambu County Government and also Machakos County Government. Sampling was conducted using stratified random sampling techniques where a sample size of 100 respondents was retrieved using 30% of the target population. Questionnaire and secondary data was used as data collection tool where data analysis was conducted using Microsoft excel with presentation being carried using percentage tables and figures. In data analysis, the study identified that Nairobi county recorded 58% effectiveness in e-payment revenue collection strategy, Kiambu county government recorded 53% effectiveness in e-payment revenue collection while in Machakos county government recorded 47% effectiveness in e-payment system. The study also identified that penalty waiver was effective at a rate of 20%, 17% and 22% in Nairobi County government, Kiambu county government and also Machakos county government respectively while agency notice was effective in Nairobi County government, Kiambu county government and also Machakos county government at a rate of 17%, 24% and 26% respectively. The study concluded that e-payment system, penalty waiver and also agency notice are effective revenue collection strategies in county governments and that there is relationship between financial performance of county governments’ and e-payment system, penalty waiver and Agency notice. It was however recommended that for effective implementation of this strategies, effective monitoring and evaluation, management commitment and also stakeholders’ engagement should be enhanced. County governments’ were also recommended to review their agency notice policies.
CHAPTER ONE

INTRODUCTION

1.1 Background

Oliveira and Martins (2011) stated that revenue collection is one of the important activities in the public sector. Revenue is defined as government income. Revenue collection on the other hand is the process in which the government collects its income from several activities such as taxation, excise duty, customs, rental income, lease of properties and other related sources which enhance payment of the public services. Revenue collection strategies are approaches to which the state authority uses to enhance maximum collection of government income. Revenue collection strategies depends solely on rule implemented by the state authority on several aspects associated with government incomes (Emezi, 2014)

According to Aamir et al (2011) Revenue collection is not a new phenomenon. The historical perspective to revenue generation is as old as civilizations have existed. In ancient Egypt, the fifth of all crops were given to Pharaoh. Ancient Greece imposed taxes to generate revenue to fund wars. The Roman Empire generated revenue by imposing taxes on colonies so as to increase the bounty of the empire. Julius Caesar imposed 1% sales tax and Augustus instituted to fund military expenditure. Modernization on revenue collection strategies were witnessed early 1900s when countries such as United States of America, China, Japan and Russia were intensively concerned with advancement in military activities. Several strategies such as enhancement of voluntary compliance
strategy were used on various tax sources to ensure that enough funds are generated to enhance production military equipments and communication devices (Hazel, 2005)

A study by Edward (2009) revealed that revenue collection is a major challenge facing many countries worldwide but the challenges are more in developing countries in comparison to developed countries Beekes & Brown (2016) posited that developed nations such as USA and Canada have effective revenue collection systems hence minimizing revenue collection challenges. The systems have been installed to enhance efficiency in revenue collection hence service hence enhancing financial performance of the countries in General. Other countries such as India and China have been in the forefront towards combating challenges of revenue evasions where increased activities and businesses have made it a great challenge in terms of public sector management on identification and collection of revenue from varied sources (Beekes & Brown, 2016).

Rai (2015) conducted a study on taxation and tax strategies in developed nations using India as the case study and indicated that provided that tax collection has faced high challenge such as non-compliance and late compliance, efficiency in tax collection has been enhanced through use of e-platforms and systems. The study indicated that 65% of revenue collection is based on electronic system where efficiency is enhanced and also tax exemption is considered one of the initial activities. The study also indicated that revenue collection education strategy has been one of the prominent strategies used by USA since taxation is involved in various activities which citizen is not eligible to without prior education (Bernanke & Benjamin, 2011).
In regional respective of revenue collection strategies, Africa remains to be one of the continents where high challenge of black market has been witnessed hence affecting the activities of revenue collection. Modern revenue collection strategies were introduced in Africa early 1990s with South Africa being the first country to implement modern revenue collection strategies due to existence of poor public private partnership which was caused by apartheid (Fjeldstad and Heggstad, 2012). High population in South Africa has contributed to high demands for public services and this has left the municipality with no choice than identification of various revenue collection strategies. Electronic revenue collections systems have are among the most efficient strategies implemented by the municipality to ensure high level of compliance.

1.1.1 Nairobi City County Government

Nairobi county government was formed through the new constitution in 2010. Nairobi City County operates under the cities and urban Area act, the devolved government act and a host of other acts. The Nairobi city county government is charged with the responsibility of providing a variety of services to residents within its area of jurisdiction. These include the services that were hitherto provided by the defunct City Council and the ones that have been transferred from the national government to the county government such as Physical Planning, Public Health, Social Services and Housing, Primary Education Infrastructure, Inspectorate Services, Public Works, Environment Management while the latter include Agriculture, Livestock Development and Fisheries, Trade, Industrialization, Corporate Development, Tourism and Wildlife, Public Service Management and Revenue collection through taxation, permit fees, CESS tax, license
fees and other sources which enhance financial performance of the county government. The mission of Nairobi city county government is to be the city of choice to invest, work and live in while its mission is to provide affordable, accessible and sustainable quality services, enhancing community participation and creating a secure climate for political, social and economic development through the commitment of a motivated and dedicated team (NCC, 2017).

1.1.2 Machakos County Government

Machakos County was formed through the new constituency in 2010. Machakos County borders Nairobi and Kiambu counties to the West, Embu to the North, Kitui to the East, and Makueni to the South, Kajiado to the South West, and Murang’a and Kirinyaga to the North West. Machakos County has applied various revenue collection strategies towards enhancement of county development such as infrastructure development and urban planning. The county has enhanced various financial infrastructure such as availability of variety of banking and other financial institutions towards easing flow for income from various stakeholders. The county government has also enhanced tax incentives/ tax holiday where investors outside Nairobi enjoy 150% investment deductive allowances in the first year of operation. Other strategies such as private public partnerships, licensing and also auditing standards have been deployed to enhance county financial performance. This has enhanced revenue mobilization in county hence resulting to enhanced financial performance (MCC, 2018).
1.1.3 Kiambu County Government

Kiambu County is located in the Central highlands of Kenya in the former Central Province, close to Kenya's capital, Nairobi. Under the leadership of former governor, Kiambu has witnessed increased revenue collection as a result of automation of revenue collection and online payment of services in collaboration with Strathmore University. The County government has also enhanced private public partnership where private institutions are allowed to consult with the county on effective revenue collection strategies. Other strategies considered are penalty waiver such as in increased land areas and also transparency and accountability in public resource management have been among the most utilised strategies towards effective revenue collection (KCG, 2018).

1.2 Statement of the Problem

Edward (2009) stated that revenue collection and management is one of the significant activities carried out by the county governments, considering that allocation of resources, infrastructure development and also provision of public services depends on availability of sufficient financial resources. However, developed nations loose around 25% of revenue as a result of lack of dependency in the revenue collection strategies while in developing nations, countries loose over 40% of revenue as a result of poor revenue collection strategies and also inability to utilize the systems properly.

Musya (2014) undertook a study to examine the part played by internal control system in the collection of revenue by county governments in Kenya. The study established that weak internal controls activities and lack of proper information and communication
systems have encouraged collusion to fraud, loss of revenue and embezzlement of collected revenue hence affecting financial performance of the county governments.

Gatumbu (2011) indicated that reliance and inability to accept change in the public sector such as employees’ ability to effectively use new revenue collection systems has been a major challenge affecting revenue collection strategies. This results from lack of reliable and insufficient revenue collection strategies in the public sector.

Studies conducted by Njanja (2014); Kinuthia & Akinnusi (2014); Odoyo, Oginda and Obura (2013) and Edward (2009) focused on challenges and issues affecting revenue collection through looking at limited strategies such as e-payment system. The studies failed to incorporate other systems such as penalty waiver, public-private partnership and also reforms and modernization of operations hence indicating limited study on the effects of revenue collection strategies.

In relation to the prevailing studies, it is clear that county governments are entangled with lack of reliable and sufficient revenue collection strategies towards revenue collection in the public sector. This study looks into this problem through clear presentation of effects of revenue collection strategies hence bridging the existing gap through incorporation of various revenue collection systems towards financial performance of county governments.

Studies have not effectively focused on effects of revenue collection strategies on financial performance in the County governments in Kenya. There are also limited studies in relation to revenue collection in Kenya. Studies conducted locally were only limited to challenges affecting revenue collection in the public sector hence neglecting recommendations on effective revenue collection strategies. This study bridged this gap
through identification of effects of revenue collection strategies on financial performance of county governments in Kenya.

1.3 Objective

1.3.1 General Objective

The general objective of this study was to investigate on the effects of revenue collection strategies on financial performance of the county governments in Kenya.

1.3.2 Specific Objectives

The specific objectives are:

1. To find out the effect of e-payment systems on financial performance of the county governments in Kenya.
2. To determine the effect of penalty waiver on financial performance of the county governments in Kenya.
3. To examine the effect of agency notice on financial performance of the county governments in Kenya.

1.4 Research Questions

The study intended to find solutions to the following research questions:

1. How does e-payment system affect financial performance in county governments in Kenya?
2. How does penalty waiver affect revenue collection in county governments in Kenya?
3. How does agency notice affect financial performance in county governments in Kenya?
1.5 Justification of the study

The prevailing study benefits national government towards monitoring and controlling revenue collection strategies towards enhancing financial performance not only in the county governments but in the national government.

The study benefits county government of Nairobi, Machakos and Kiambu towards enhancing revenue collection and allocation of resources hence enhancing county government financial planning.

The study also benefits other 43 county governments countrywide towards enhancing effective revenue collection strategies hence contributing to financial performance considering that the systems in all county governments’ are almost similar.

The study benefits future researchers towards providing them with relevant information of revenue collection strategies’. The study will provide materials for guidance to future learners.

1.6 Scope of the study

The effect of revenue collection strategies on financial performance by county governments is a study which was carried out in three counties, namely:- Nairobi City County, Kiambu and Machakos. The study targeted middle level management public service management department, trade and business licensing department and also land and urban planning department in the three counties. The study focused on retrieving information from a population from 3570 employees in Nairobi City Council, 2780 employees in Kiambu County Council and also 2340 in Machakos County hence making
estimated population of 8690 employees. The study was carried out in the month of April 2018.

1.7 Limitations of the study
The prevailing study was limited to time constraint. The researcher expected to carry out the study within the shortest period possible, but due to enormous data collection, the researcher couldn’t meet duration target on time.

The second limitation of the study was respondents’ consents. Respondents were concerned with their privacy and few of them were not willing to participate towards providing the study with information.

The third limitation for the prevailing study is in relation to traveling and accommodation cost. The researcher travelled to the three counties to collect data and this was much costly than expected.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter presents theoretical review based on other studies, conceptual framework, and critiques of the existing studies, summary and also research gap.

2.2 Theoretical Review

2.2.1 Resource Based View Theory

According to Martinez-Costa (2016), resource based view theory is a theory which has become one of the most widely used theoretical frameworks in revenue collection in public sector. Newbert 2017, holds that the success of a firm is based on the resources and capabilities it holds in control which may become a source of competitive advantage. Scholars have always related dynamic capabilities to Resource Based View (RBV) and in the process defined it as the key strategic and organizational routine used by the Managers to alter their resource bases to generate new value-creating strategies (Helfat and Peteraf, 2014). Dynamic capabilities are the buffer between resources of the firm and the shifting business environment, which enhance sustainability of its competitive advantage. This is a sentiment that was held firmly onto by Barney (2011), who posits that for a resource to yield competitive advantage, it must be valuable, and should be sufficient enough to enhance financial performance of a company.

Revenue functions as resource to county governments and it is the duty of the county government to ensure that sufficient resources are mobilised to enhance county development. Resource based view also considers that organizations must adapt a unique
and efficient process of resource acquisition such as utilization of electronic platforms by the county government and also public private partnership which enhances resource mobilization and allocation of resources. Helfat and Peteraf (2014) stated that revenue collection in most developed nations is carried out by private sectors such as revenue collection bureaus with fully imposed system on tax compliance. The bureaus provide professional debt collection services which enhances financial resources of the public sector. Sufficient financial resources with accountability enhances services provision to the public which in turn results to standard financial performance.

2.2.2 System Theory
System theory has been potentially used over decades towards understanding and explaining the relationship between reliance of independent system and revenue collection in public sector. Systems theory is the trans-disciplinary study of the abstract organization of phenomena, independent of their substance, type or spatial or temporal scale existence. It investigates both the principles common to all complex entities and the models which can be used to describe them (Von, 2015). This theory was proposed in the 1940s by Ludwig and furthered by Ross Ashby in 1956. They emphasized that real systems are open to, and interact with their environments, and they can acquire qualitatively new properties through emergence, resulting in continual evolution. Rather than reducing an entity the properties of its parts or elements/systems theory focus on the arrangement of and relations between the parts which connect them into a whole. Systems analysis developed independently of systems theory, applies systems principles to aid a decision maker with problems or identifying, reconstruction, optimizing and
controlling a system while taking into account multiple objectives, constraints and resources. It aims to specify possible courses of action, together with their risks, costs and benefits (Thome, 2014).

The concept of system theory in respect to revenue collection is that through reliance on independent system in public sector, revenue collection activities can be enhanced hence contributing to sufficient resource allocation and financial performance. Positive growth and adaptation of a system depends upon how well the system is adjusted with its environment and Systems often exist to accomplish a common purpose. The goal of systems science is systematically discovering this systems’ dynamics, its constraints, conditions and elucidating principles and purpose. It is the duty of the county government to adjust their revenue collection system towards facilitating revenue collection activities (Midgley, 2014). This involves having new policies, trained employees and also proper management.

2.3 Empirical Review

2.3.1 E-payment System

E-payment is a payment by direct credit, Electronic Transfer of credit card details, or some other electronic means, as opposed to payment by cheque and cash (Agimo, 2015). E-payment is a payer’s transfer of a monetary claim on a party acceptable to the beneficiary, a financial exchange that takes place online between the buyer and the seller. The process of cashless transactions plays a big role in ensuring that the County Governments collect enough revenue to fund its projects. In Kenya the Nairobi County
government was the first county to adopt e-payment system in Kenya, which went live to bring efficiency and convenience in revenue collection (Njanja, 2014).

In Nairobi City (which is within Nairobi County), users of city parking space can make payments using mobile money, debit cards, over-the-counter payments at 29 partner banks and at independent agent stalls spread across the city (Kinuthia & Akinnusi, 2014). The agents send money on behalf of a client but issue a receipt to confirm the transaction. All the digital payment options offered are linked to the system through the Nairobi County e-wallet that is created on signing up. No charges are incurred when making payments through independent agents, the e-county mobile app and using mobile money, but banks offering the service may impose a charge on transactions.

Early 2015, Kiambu county government was voted among the top counties in revenue collection. The county collected at least 2.1 billion which resulted to 6.3% increase in relation to previous periods. Increased E-payment strategies and also collaboration with the private sector such as Strathmore University to structure appropriate revenue collection strategy hence resulting to enhanced financial performance. Adoption of E-payment system has been accepted with no doubt among tax payers due to efficiency and also cost free advantage (Mghenyi, 2016).

Machakos County has diversified in their principal sources of revenue in order to increase its tax base. The governor of Machakos County is currently rated among the high performing governors from the 47 counties in Kenya (Victor, 2014). The county
government has developed a strategic plan for effective revenue collection such as application of enhanced financial infrastructure, tax incentives, private public partnership, auditing standards, licencing and also penalty waiver. The county government ensures that proper policies and procedures that are in harmony with the citizens to facilitate smooth flow of activities and development initiatives.

The provision of E-payment system in the County governments in Kenya has enhanced revenue collection through dealing with corrupt officials. Ngotho and Kerongo (2014) indicated that around 40% of revenue collected in County governments in every financial year was misused as a result of high level of corruption and use of outdated revenue collection strategies. With implementation of e-payment system, the system has secured cost saving and also enhanced revenue collection towards financial performance in the county governments such as Machakos, Kiambu and also Nairobi.

Mugo (2011) identified that effective integration of information communication technology with revenue collection functions is major trend towards effective revenue collection strategies. KRA has been intensively involved in helping the county governments towards revenue collection through conducting education on the importance of public private partnership, use of systems such as IFMIS (integrated financial management information system) which is involved with resources management in county government and public sector. Implementation of revenue collection strategies such as E-Systems early 2014 has contributed to rise in revenue collection in 2015 with 3.8% increase compared to previous financial period and this has enhanced financial
performance such as budgeting and allocation of resources to the county governments (Muriithi, 2015).

2.3.2 Penalty Waiver

Penalty is a fee imposed by the county governments with aim of enhancing revenue collection in future. Penalty waiver or cancellation of penalties is a technique which is perceived to encourage payment of future taxes and fee in due time (Abor, 2015). Penalties occurs due to late filing, late payment and failure to withhold or collect tax as required by the law, underpayment or late payment of estimated income tax, failure to file or failure to furnish information, failure to timely pay or protest tax by the department of revenue, failure to timely obtain required tax identification number, permit, license and others, negligence, fraud and also dishonoured check. Abor (2015) stated that penalty waiver is mostly common in land rates where huge taxation is applicable. Penalty waiver relinquishes land owners heavy penalties involving huge amount of money.

A study conducted by Simiyu (2014) indicated that penalty waiver has contributed to 5% decrease in time taken to file land rates. This has also encouraged land owners to file their land rates in advance. Early September 2015, the county government of Nairobi announced 100% penalty waiver to all land rates defaulters who prompt to settle their bills in due time. The report indicated that the county government owed 158 billion Kenya shillings.
The national Government entities and private land buying companies are some of the major defaulters. High level of default in filing tax has contributed to poor county development due to lack of sufficient financial resources hence contributing to poor financial performance. Penalty waiver also ensures that defaulters have sufficient duration to plan for payment of their dues to the county government with minimal legal actions hence enhancing public private partnership (PPP) (Simiyu, 2014).

Nairobi county, Kiambu county and also Machakos counties have attracted at least 100% penalty waiver on interest in land rates hence facilitating ease in payment of land rates. Accumulated interest in land rates have been associated with inability to comply or pay due to accumulated high cost. Penalty waiver acts as a relinquishing method on the increased interest hence encouraging land owners to pay their normal dues.

2.3.3 Agency Notice

This is one of the involuntary revenue collection strategies. This is a notice issued after a period given in demand has elapsed and the debtor has not responded. It is issued to a third party who may be owing money to the debtor. If the agent has no money owing to the debtor he has to respond in 7 days otherwise if 30 days lapses then taxes will be recovered from the agent. (Income Tax Act, 2010).

According to Zhou (2013), the revenue collection in Zimbabwe has gone through milestone reforms, notable ones being the establishment of a sole national revenue authority in 2001, the shifting from cumbersome Income Tax Return Forms to Final
Deduction Systems which have enhanced tax efficiency from 35% to 55% of the revenue collection strategies. The study also indicated that since 2013, Zimbabwe government has been intensively involved in staff training on use of electronic based tax collection systems towards enhancement of financial performance of the national government in delivery of public services (Zhou, 2013). This has contributed to 6% increase in tax collection in the year 2013 hence enhancing financial performance of the public sector.

Franzen (2017) indicated that revenue collection in Tanzania is based on public private partnership. The study indicated that, public officials are more effective as revenue collectors than their private counterparts. Fjeldstad and Haggstad (2012) concluded that, measures are required to improve the accountability of revenue collectors and elected officials. The foregoing, according to the scholars, can only be achieved through political goodwill from the national government.

Kayaga (2010) in her study of tax policy challenges in Uganda as one of developing countries opined that, new technology alone is not sufficient if the government does not recognize the need for skilled tax officials. The scholar further avers that, effective revenue administration requires qualified revenue collection personnel with requisite skills to maintain these systems and operate them to their fullest potential hence portraying the need for staff training strategy of revenue collection.

In decades, City councils were mandated by the local governments to enhance revenue collection until the new constitution adopted county governments which are under leadership of governors. The major aim of the county government is to enhance economic
development and provision of public service within its locality with effective and efficient revenue collection strategies.

Ngotho & Kerongo (2014) stated that County Governments collects revenue from taxation, permit fees, CESS tax, license fees and other sources. However, their over-reliance on the National Government for funds to a point of calling for a national referendum to have their allocation increased implies existence of myriad of challenges in revenue collection at County level. Ngotho & Kerongo (2014) stated that non-compliance has been a major challenge affecting tax collection in the county governments through legal and illegal activities such as tax avoidance and tax evasion. Odoyo, Oginda and Obura (2013) indicated that Kenya is among many developing countries struggling with the problem of tax non-compliance by the tax payers. From a cross comparative analysis of previous studies and the findings of this study, it is evident that tax non-compliance among business firms does affect revenue collection negatively.

Agency notice in most cases is issued when one has defaulted to remit normal levy or bill payment to the county government. In most cases, the process involves legal activities to enforce someone to pay their levy to the county governments. Through imposed regulations and effects of agency notice, revenue collection has increased in county governments. Each county government has its structures on issuance of agency notice by the standard duration is 30 days.
2.4 Conceptual Framework

Mugenda (2016) stated that conceptual framework is a hypothesized model identifying the concepts under study and their relationship through consideration of independent and dependent variables.

**Independent Variables**

<table>
<thead>
<tr>
<th>E-payment system</th>
<th>Financial Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Portal payment</td>
<td>- Achievement of financial objectives</td>
</tr>
<tr>
<td>- Electronic payment system</td>
<td>- Economic development</td>
</tr>
<tr>
<td>- Jambo Pay</td>
<td></td>
</tr>
</tbody>
</table>

**Penalty Waiver**

- Land rates waiver
- Interest waiver

**Agency Notice**

- Levy agency notice
- Bills agency notice

2.5 Critiques of existing literature relevant to the study

In criticising the works of Kerongo (2014) with respect to effectiveness of e-payment systems in the county government, in most cases e-payment systems fail to operate to required threshold hence having being leading to high doubt on system effectiveness. It is clear that most of the users are not fully acquainted with e-payment systems such as Jambo Pay and the county governments does not provide training needs to various stakeholders hence resulting to prominent doubt on effectiveness of e-payment system.
A study conducted by Rachan (2013) on challenges affecting electronic payment systems indicated that e-payment systems have been associated with security challenges hence leading to high level of mistrust and unreliability in public revenue collection. This poses a threat not only to the customer but also to revenue generated at the end of the day. Another challenge is that e-payment system is not universally accepted because basically payers believe that there are hidden charges which benefit the owners of the system hence resulting to incremental cost associated with e-payment.

In criticising a study conducted by Abor (2015) on penalty waiver, penalty waiver has not been effective as commercialised since this only has impact on limited individuals. Penalty waiver in most cases is applied to individuals with high debt on land rate hence neglecting individuals with low debt. Penalty waiver has no impact on individual ability to pay dues hence resulting to minimal effectiveness.

2.6 Summary

Prevailing studies have clearly indicated how modern revenue collection strategies have affected financial performance in the county government. Studies with respect to effects of e-payment systems on financial performance indicated that through e-payment systems, county governments have been able to curtail corrupt issues associated with poor payment systems hence resulting to enhanced revenue collections (Ngotho & Kerongo, 2014).

In relation to penalty waiver which is a program adopted by various county governments to relinquish land owners on increased land penalties, most of land owners have taken the
advantage of penalty waiver hence resulting to effectiveness in revenue collection which affects financial performance.

Studies on agency notice indicated that recovery of county dues in few cases such as in relation to default has been associated with application of agency notice where default of such notice leads to transfer of the dues to an agent who has the right to recover the bills on behalf of the county government either through auction or court order.

2.7 Research Gap

Studies such as study conducted by Edward, (2009); Musya, (2014); Gatumbu, (2011); Njanja (2014); Obura (2013) have not effectively focused on effects of revenue collection strategies on financial performance in the County governments in Kenya. There are also limited studies in relation to revenue collection in Kenya. Studies conducted locally were only limited to challenges affecting revenue collection in the public sector hence neglecting recommendations on effective revenue collection strategies. The prevailing study also notes that strategies such as penalty waiver and agency notice have not been extensively examined towards effective revenue collection. This study bridged this gap towards effective presentation of revenue collection in county governments
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

Research design is the strategy, the plan, and the structure of conducting a research project (Michael, 2012). In this applied research, the researcher used descriptive research design, in which questionnaires were used to collect the data which enabled the researcher to describe the findings. Descriptive research design ensured that the researcher presents a clear comparison of variables hence providing detailed description of phenomena.

3.2 Population

Burns and Grove (2014) described population as all the elements that meet the criteria for inclusion in a study. The study targeted Nairobi City County, Kiambu and Machakos County with a total population of 8690 employees and a total of 334 middle managers in various departments where Nairobi City County has 120 middle managers in various departments; Kiambu County has 134 middle managers in various departments while Machakos County has 80 middle managers in various departments. The study targeted middle level management in relevant departments (Revenue collection departments) within the position of providing relevant information such as; public service management department and trade and business licensing department as presented in table 3.1.
Table 3.1 Target Population for three Counties

<table>
<thead>
<tr>
<th>Category</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public service management department</td>
<td>110</td>
</tr>
<tr>
<td>Land, and urban planning department</td>
<td>118</td>
</tr>
<tr>
<td>Trade and business licensing department</td>
<td>106</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>334</strong></td>
</tr>
</tbody>
</table>

3.3 Sampling Frame

Sample frame is made up of a complete list of all the members of the population that the researcher needs to study (Mugenda & Mugenda, 2016). The prevailing study chose to operate with 30% of the target population hence a sample size of 100 respondents where each County produced 33 respondents hence having equal chances.

3.4 Sample and Sampling Techniques

Burns and Grove (2014) refer to sampling as a process of selecting a group of people, events or behaviour with which to conduct a study. The researcher focused on stratified sampling percentage technique which is used when population comprises of respondents from different strata. According to the prevailing study, the targeted employees were from different stratus such as public service management, land and urban planning department and trade and business licensing. Mugenda and Mugenda (2016) indicated that for a target population less 1000, research can apply 10-30% of the target population.
Table 3.2 Sample Size Construction

<table>
<thead>
<tr>
<th>Category</th>
<th>Population</th>
<th>Percentage</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public service management department</td>
<td>110</td>
<td>30%</td>
<td>33</td>
</tr>
<tr>
<td>Land, and urban planning department</td>
<td>118</td>
<td>30%</td>
<td>35</td>
</tr>
<tr>
<td>Trade and business licensing department</td>
<td>106</td>
<td>30%</td>
<td>32</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>334</strong></td>
<td><strong>30%</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

3.5 Instruments

The study adopted both primary and secondary data procedures. In primary data methods, the researcher used structured questionnaire which were distributed to the selected sample size in Nairobi City County headquarters, Kiambu County headquarters and also Machakos County. Questionnaire was used to yield both qualitative and quantitative data. Mugenda (2016) indicates that questionnaires are relatively effective due to costs associated with other data collection tools because they only require construction, printing and disseminating them to the community or target group. In secondary data methods, the study used county data for the past five years (2013-2017) where relevant information in relation to revenue collection strategies was used.

3.6 Data Collection Procedures

In the prevailing study, the researcher used self-administered questionnaires and also drop and pick method. The researcher sought supervisor approval consent on the format, structure and also research questions approval before presenting the questions to any respondent. The researcher adopted self-administration procedure where respondents were allowed to fill questionnaires based on their free will. This ensured confidentiality
and disclosure of required information. A period of one week was allocated for the respondents to fill the questionnaires where the researcher keenly studied the filled questionnaires to ensure that they were filled to satisfaction and also to ensure the information provided is bias free.

3.7 Pilot Test

Piloting helps to depict weaknesses in design and instrumentation and to gather data for selection of a probability sample (Cooper & Schindler, 2006). Prior to distribution, the researcher reviewed questionnaires by selecting 10 respondents from the respondents in all the departments targeted in order to pre-test the effectiveness and completeness of the questionnaire. Questionnaire with errors was amended prior to data collection.

3.7.1 Validity of Research Instruments

Kothari (2015) pointed out that validity measures the accuracy of the instruments in obtaining the anticipated information which can be used in meeting the goals or objectives of this study and, according to Gay (1992), it is established by experts’ judgment.

3.7.2 Reliability of Research Instruments

A reliable instrument is believed to produce the same results when used more than once. The researcher used Cronbach alpha which measures reliability of psychometric test.

3.8 Data Processing and Analysis

Data analysis is a process of inspecting, cleansing, transforming and modelling data with the goal of discovering useful information, suggesting conclusions and supporting decision making. This involves data interpretation, tools used, methods and also
Interpretation is the process of making sense of numerical data that has been collected, analysed, and presented (Mugenda & Mugenda, 2016). In this study, the researcher used first hand data from the combined questionnaires to quantify into frequencies and percentages which guided the researcher towards data presentation. The study used Microsoft Excel and SPSS as data analysis tools. Descriptive data analysis method was used where the researcher described both qualitative and quantitative results from the questionnaires. Data presentation was carried out through tables and figures where appropriate description was carried out. Inferential statistics was done using the Statistical Package for Social Sciences (SPSS) where confidence level of 95% was required, and a p-value of \( \leq 0.05 \) was required to show evidence of accepting the proposed research questions where multiple regression were met to ascertain the relationship between the independent and the dependent variables where

\[
Y = a + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon
\]

- \( Y \) = Financial performance
- \( a \) = Constant coefficient
- \( \beta \) = Beta of respective variables
- \( X_1 \) = E-payment systems
- \( X_2 \) = Penalty waiver
- \( X_3 \) = Agency Notice
- \( \varepsilon \) = Error term.
CHAPTER FOUR
RESULTS AND ANALYSIS

4.1 Introduction
The purpose of this chapter is to present data analysis as proposed in chapter three of the research proposal. The purpose of the study was to determine effects of revenue collection strategies on financial performance of county governments. The data was gathered from questionnaire as primary data instrument and also secondary data instrument was retrieved from respective counties in relation to revenue collection. Primary and secondary data collection was designed; To enhance quality of data obtained, structured and unstructured types of questions were included. Proper analysis assisted in making comparisons of the different reactions from the responses which guided in the formulation of the conclusion and recommendations.

4.2 Response Rate
This section presents respondents response rate in relation to department as presents in table 4.1 below

Table 4.1 Response Rate

<table>
<thead>
<tr>
<th>Category</th>
<th>Sample size</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public service management department</td>
<td>33</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Land, and urban planning department</td>
<td>35</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Trade and business licensing department</td>
<td>32</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>100</strong></td>
<td><strong>84</strong></td>
<td><strong>84</strong></td>
</tr>
</tbody>
</table>

According to findings in table 4.1, it is clear that out of proposed sample size of 100 respondents, 84% of them turned up for the study where 30% were from land, urban
planning department, 28% were from public service management department and 26% were from trade and business licensing department. Findings indicated that 35% of the respondents were from Nairobi County, 27% were from Kiambu County and 20% were from Machakos County.

4.3 Reliability of Research Instrument

Reliability measures the extent to which a research instrument gives the same results once pretested again and again. This is done prior to valid research testing as it provides guidelines on whether to change the research instrument or make some adjustments.

Table 4.2 Combined Reliability analysis

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.759</td>
<td>.771</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 4.2 represents results in reliability analysis. With a reliability of 0.7 the instruments are believed to be reliable. The bigger the figure, the stronger the reliability index. Based on results in table 4.2 it is clear that after the research instruments were reliable with reliability coefficient of 0.771. Nunnally (1978) stated that an alpha of .0.7 is standard alpha which indicates that the research instrument is reliable.

4.4 Background Information

This section presents respondents background information such as gender, age group, work period and effectiveness of revenue collection.
4.4.1 Gender

This section presents respondents gender as presented in figure 4.1

Figure 4.1 Gender

Findings in figure 4.1 indicated that 49 (58%) of the respondents were male while 35 (42%) of the respondents were female.

4.4.2. Age Group

This subsection presents respondents age group as presented in table 4.2 of the study

Table 4.3 Age Group

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25 years old</td>
<td>3</td>
<td>3.6</td>
</tr>
<tr>
<td>26-30 years old</td>
<td>10</td>
<td>11.9</td>
</tr>
<tr>
<td>31-35 years old</td>
<td>18</td>
<td>21.4</td>
</tr>
<tr>
<td>36-40 years old</td>
<td>20</td>
<td>23.8</td>
</tr>
<tr>
<td>40-45 years old</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Above 46 years old</td>
<td>12</td>
<td>14.3</td>
</tr>
<tr>
<td>Total</td>
<td><strong>84</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Findings in table 4.3 indicated that 25% (21) respondents were aged between 40-45 years while 23.8% (20) of the respondents were aged between 36-40 years. Findings also indicated that 21.4% (18) of the respondents 31-35 years old while 14.3% (12) respondents were aged above 46 years. Results indicated that 11.9% (10) respondents were aged between 26-30 years while 3.6% (3) respondents were aged between 20-25 years.

4.4.3 Work Period

This subsection presents results in relation to number of years respondents have been working in respective county governments.

Figure 4.2 Work Period

Results in figure 4.2 indicated that 57% (48) respondents have worked with county governments for 2-3 years while 29% (24) respondents have worked with selected county governments for less than 1 year. Results indicated that only 14% (12) respondents have worked for selected county governments for over 4 years.

4.4.4 Effectiveness of revenue collection strategies

This subsection presents results on whether revenue collection strategies have been effective as presented in figure 4.3
Figure 4.3 Effectiveness of revenue collection strategies

According to results in figure 4.3, it is clear that 60% (50) of the respondents agreed that revenue collection strategies have been effective while 40% (34) of the respondents indicated that revenue collection strategies haven’t been effective.

4.5 E-payment system

The purpose of this section is to present results in relation to effects of e-payment system on financial performance of county governments.

4.5.1 Primary data on E-payment system

The purpose of this subsection is to presents results which were collected from the study field to determine the effects of E-payment systems on financial performance of county governments where SA= strongly agree, A= Agree, U= undecided, D= disagree and SD= strongly disagree.
Table 4.4 E-payment system

<table>
<thead>
<tr>
<th>The extent to which I agree with..........</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-payment systems have enhanced revenue collection in the county government</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>35</td>
<td>42</td>
</tr>
<tr>
<td>Through e-payment system, county governments have been able to curtail corruption hence contributing to financial performance</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td>38</td>
<td>31</td>
</tr>
<tr>
<td>E-payment system has been one of the benefits associated with e-payment systems in the county governments</td>
<td>4</td>
<td>12</td>
<td>9</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>Monitoring of financial transactions in the county government has been effective as a result of effective application of e-payment system</td>
<td>-</td>
<td>10</td>
<td>17</td>
<td>23</td>
<td>34</td>
</tr>
</tbody>
</table>

Results in the first statement of table 4.4 indicated that 35 and 42 respondents respectively agreed and strongly agreed that e-payment systems have enhanced revenue collection in the county government while 7 respondents were undecided with the statement. Results indicated that there was no response on the disagreement side.

Results in the second statement of the study indicated that 38 and 31 respondents agreed and strongly agreed that through e-payment system, county governments have been able to curtail corruption hence contributing to financial performance. Results indicated that 15 respondents were undecided with the statement with no response on the disagreement side.

Results in the third statement of the study indicated that 28 and 31 respondents agreed and strongly agreed with the statement that e-payment system has been one of the benefits associated with e-payment systems in the county governments while 12 and 4
respondents disagreed and strongly disagreed with the statement respectively. Results indicated that 9 respondents were undecided with the statement.

Results in the last statement of table 4.3 indicated that 23 and 34 respondents agreed and strongly agreed with the statement that monitoring of financial transactions in the county government has been effective as a result of effective application of e-payment system while 10 respondents disagreed with the statement. Results indicated that only 10 respondents were undecided.

4.5.2 Secondary data on E-payment system

This section presents secondary data which was retrieved from various sources indicating effects of E-payment system on financial performance in county governments. Revenue collection review is in accordance with section 118 of the public financial management act 2012 hence realization in 2013-2014 financial year.

4.5.2.1 Nairobi secondary data on E-payment system

This sub-section presents results in relation to how E-payment system in Nairobi county government has contributed to revenue collection.
Results in table 4.4 indicated that adoption of e-payment system in revenue collection has contributed to increase in revenue collection over years. According to the data, 10.3 billion Ksh were collected in the year 2013-2014 while 11.6 B was collected in the year 2014-2015 hence indicating growth of 12.6% in revenue collection. In the fiscal year 2015-2016, revenue grew by 0.86% (11.7B) as compared to previous fiscal year. In the fiscal year 2016-2017, revenue collection dropped by 6.8% (10.9B). The study however found out that factors such as absurd political climate had a major effect on businesses and revenue collection in general and this affected major cities in the country. It is ascertained that out of total collected revenue in 4 years’ time, 58% of the revenue has directly been collected through E-JIJI pay which is self-service portal enhanced towards collection of revenue. Inauguration of this system was witnessed back in 2013, with full implementation in 2014 hence increased revenue collection has been witnessed (Nairobi County government, 2018).
4.5.2.2 *Kiambu secondary data on E-payment system*

This sub-section presents results in relation to how E-payment system in Kiambu county government has contributed to revenue collection.

**Figure 4.5 Kiambu County E-payment data**

![Revenue collection in Billion Ksh]

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (Billion Ksh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-2014</td>
<td>1.24</td>
</tr>
<tr>
<td>2014-2015</td>
<td>2.1</td>
</tr>
<tr>
<td>2015-2016</td>
<td>2.4</td>
</tr>
<tr>
<td>2016-2017</td>
<td>2.03</td>
</tr>
</tbody>
</table>

**Source:** *(Kiambu county government integrated plan, 2018)*

Kiambu County launched cashless payment early 2015 under the leadership of former Governor Kabogo in conjunction with Strathmoore University. In fiscal year 2013-2014, Kiambu county government witnessed revenue collection of 1.24 Billion Ksh with limited implementation of e-Payment system. After implementation of e-payment system, revenue collection boomed to 2.1 Billion Ksh indicating 69.6% increase in revenue collection. In the fiscal year 2015-2016, revenue collection also grew with 14.3% (2.4B) with drop in the year 2016-2017 by 15.4% (2.03B). The county has been praised for effective implementation of e-payment system hence boosting revenue collection by 53%
of the total revenue collected currently (Kiambu county government integrated plan, 2018).

4.5.2.3 Machakos secondary data on E-payment system

This section presents results on how e-payment system in Machakos County has contributed to growth of revenue collection.

**Figure 4.6 Machakos County E-payment system**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>1.2</td>
<td>1.4</td>
<td>1.21</td>
<td>1.12</td>
</tr>
</tbody>
</table>

Source: *(COB, 2018)*

Implementation of e-payment system in Machakos County was witnessed early 2015. Prior to implementation, Machakos County used integrated payment system. Data from the county information indicated that in 2013-2014, the county recorded 1.2 Billion Ksh in revenue collection where in fiscal year 2014-2015 was 1.4 indicating 16.6% increase in revenue collection. Secondary data also indicated that Machakos County managed a total collection of 1.21 B in the fiscal year 2015-2016 with a drop of 13.6% in revenue collection. Drop in revenue collection has also been witnessed in the financial year 2016-2017 where 1.12 B was recorded with a drop of 7.4%. Political climate and drought were major factors contributing to 2015-2017 drop in revenue collection. From the secondary
data, it was indicated that e-payment system has only contributed to 47% increase in revenue collection compared to integrated method of revenue collection.

4.6 Penalty Waiver

The purpose of this section is to present results in relation to effects of penalty waiver on financial performance of county governments

4.6.1 Primary data on Penalty Waiver

This subsection presents primary data results on effects of penalty waiver on financial performance of county governments where SA = strongly agree, A = Agree, U = undecided, D = disagree and SD = strongly disagree.

<table>
<thead>
<tr>
<th>The extent to which I agree with........</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>S A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penalty waiver has a positive effect on financial performance of county governments</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>47</td>
<td>27</td>
</tr>
<tr>
<td>Penalty waiver encourages early payment of land rates hence contributing to financial performance</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>53</td>
<td>31</td>
</tr>
<tr>
<td>Penalty waiver has not been effective towards enhancement of revenue collection</td>
<td>27</td>
<td>29</td>
<td>19</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>Penalty waiver relinquishes land owners heavy penalties involving huge amount of money hence contributing to enhanced future revenue collection</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>26</td>
<td>52</td>
</tr>
</tbody>
</table>

Results in the first statement of table 4.5 indicated that 47 and 27 respondents agreed and strongly agreed respectively that penalty waiver has positive effect on financial performance of county governments while 10 respondents were undecided with the statement. Results indicated that there was no response on the disagreement.
Results in the second statement indicated that 53 and 31 respondents respectively agreed and strongly agreed that penalty waiver encourages early payment of land rates hence contributing to financial performance with no response on the disagreement side.

Results in the third statement of table 4.5 indicated that 29 and 27 respondents disagreed and strongly disagreed respectively with statement that penalty waiver has not been effective towards enhancement of revenue collection while 9 respondents agreed with the statement. Results indicated that 19 respondents were undecided that penalty waiver has not been effective towards enhancement of revenue collection.

Results in the last statement of table 4.5 indicated that 26 and 52 respondents agreed and strongly agreed that penalty waiver relinquishes land owners heavy penalties involving huge amount of money hence contributing to enhanced future revenue collection while 6 respondents were undecided. Results indicated that there was no response on the disagreement side.

4.6.2 Secondary data on Penalty waiver

This section presents secondary data in relation to effects of penalty waiver on revenue collection in Nairobi, Kiambu and Machakos counties

Table 4.6 Secondary data on Penalty waiver

<table>
<thead>
<tr>
<th>County/ category of waiver</th>
<th>Interest waiver on outstanding rates</th>
<th>Daily levies on small scale traders</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi County</td>
<td>100%</td>
<td>-</td>
<td>20%</td>
</tr>
<tr>
<td>Kiambu County</td>
<td>100%</td>
<td>-</td>
<td>17%</td>
</tr>
<tr>
<td>Machakos County</td>
<td>100%</td>
<td>100%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: (Nairobi City County; Machakos County; Kiambu County, 2018)
Results in table 4.6 indicates secondary data in relation to effectiveness of penalty waiver towards revenue collection in county governments. County governments were found to lack statistical comparison over years, because implementation of penalty waiver has been partially applied; once in a lifetime. The prevailing findings indicated that Nairobi County has only applied 100% waiver on interest on outstanding land rates hence totalling to 20% effectiveness in land rates payment while Kiambu County with implementation of 100% interest waiver on outstanding land rates has resulted to 17% effectiveness towards land rates payment. Data indicated that Machakos County has adopted 100% waiver on both interest on land rates waiver and also levies on small scale traders, resulting to 22% effectiveness.

4.7 Agency Notice

The purpose of this section is to present results in relation to effects of agency notice on financial performance of county governments.

4.7.1 Primary data on agency notice

The purpose of this subsection is to present results which were collected from study field on effects of agency notice on financial performance of county governments where SA = strongly agree, A = Agree, U = undecided, D = disagree and SD = strongly disagree.
Table 4.7 Agency Notice

<table>
<thead>
<tr>
<th>The extent to which I agree with.........</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>S A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issues of agency notice has positive effect on revenue collection strategy</td>
<td>-</td>
<td>11</td>
<td>5</td>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>County government only issues agency notice on defaulted levies</td>
<td>18</td>
<td>23</td>
<td>14</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>Issue of agency notice has minimal influence on revenue collection</td>
<td>27</td>
<td>31</td>
<td>9</td>
<td>17</td>
<td>-</td>
</tr>
<tr>
<td>Through issuing agency notice, defaulter speed their payment process hence affecting revenue collection</td>
<td>-</td>
<td>4</td>
<td>15</td>
<td>34</td>
<td>31</td>
</tr>
</tbody>
</table>

Results in the first statement of table 4.7 indicated that 36 and 32 respondents agreed and strongly agreed respectively that Issue of agency notice has positive effect on revenue collection strategy while 11 respondents disagreed with the statement respectively. Results indicated that 5 respondents were undecided with the statement that issues of agency notice has positive effect on revenue collection strategy.

Results in the second statement of table 4.7 indicated that 22 and 7 respondents agreed and strongly agreed respectively that county government’s only issues agency notice on defaulted levies while 23 and 18 respondents disagreed and strongly disagreed with the statement respectively. Results indicated that 14 respondents were undecided with the statement.

According to results in the third statement, 31 and 27 respondents disagreed and strongly disagreed with the statement that issue of agency notice has minimal influence on revenue collection while 17 respondents agreed with the statement. Results indicated that
9 respondents were undecided with the statement that issue of agency notice has minimal influence on revenue collection.

Results in the last statement indicated that 34 and 31 respondents agreed and strongly agreed that through issuing agency notice, defaulters speed their payment process hence affecting revenue collection while 4 respondents disagreed with the statement. Results indicated that 15 respondents were undecided with the statement that through issuing agency notice, defaulters speed their payment process hence affecting revenue collection.

4.7.2 Secondary data on agency notice

This subsection presents secondary data in relation to effects of agency notice on financial performance of county governments in Kenya.

**Table 4.8 Secondary data on agency notice**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi County</td>
<td>34,239</td>
<td>5821</td>
<td>17%</td>
</tr>
<tr>
<td>Kiambu County</td>
<td>29,187</td>
<td>7005</td>
<td>24%</td>
</tr>
<tr>
<td>Machakos County</td>
<td>18,487</td>
<td>4807</td>
<td>26%</td>
</tr>
</tbody>
</table>

**Source:** (Nairobi City County; Machakos County; Kiambu County, 2018)

Results in table 4.8 indicated that in Nairobi City County government, a total of 34,239 agency cases have been filed since 2013-2017 with 5821 cases being won by the county government hence resulting to 17% effectiveness. Results also indicated that in Kiambu County government, 29187 agency cases have been issued since 2013-2017 with 7005 cases being effective (24%) while in Machakos County government, 18,487 agency
notices on land rates and taxes were issued with only 4807 (26%) cases being effective. Based on the data from the county governments, majority of this notices were in relation to overdue tax and land rates.

### 4.8 Regression Analysis

Regression analysis measures relationship of more than two variables, for effective measure of regression analysis. For this study, the researcher focused on model summary table, ANOVAs table and also coefficient table.

**Table 4.9 Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.714&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.677</td>
<td>.647</td>
<td>.99696</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), E-payment System, Penalty Waiver, Agency Notice.

b. Dependent Variable: financial performance of county governments in Kenya

Based on data in table 4.9 which indicates data in model summary, R represents multiple regressions between dependent and the combination of independent variables, R square represents proportion of variation in the dependent variable that is explained by the combined effects of the independent variables. Adjusted R square represents adjustment for the number of variables in the model and the sample size which measures the deviation of variables. R square which was used to measure deviation between variables indicated that there was deviation of 67.7% of variables, that is, if the independent variables are altered at a small margin, the dependent variable will be changed by 67.7%. Based on these results the researcher concluded that relationship existed between
financial performances of county governments in Kenya; E-payment System, Penalty Waiver and Agency Notice.

Table 4.10 ANOVA Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>10.053</td>
<td>3</td>
<td>3.351</td>
<td>7.810</td>
<td>.003</td>
</tr>
<tr>
<td>Residual</td>
<td>17.592</td>
<td>41</td>
<td>.429</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27.644</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: financial performance of county governments in Kenya
b. Predictors: (Constant), E-payment System, Penalty Waiver, Agency notice.

ANOVAs analysis looks at the significant (sig) of the items to indicate relationship between variables as in table 4.10. Based on the results in table 4.10, the researcher found out that the items had sig P. < 0.003 which indicated that relationship existed between financial performance of county governments’ in Kenya and E-payment System, Penalty Waiver and Agency notice.

Table 4.11 Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.315</td>
<td>.328</td>
<td>10.095</td>
</tr>
<tr>
<td></td>
<td>E-payment system</td>
<td>.469</td>
<td>.205</td>
<td>.409</td>
</tr>
<tr>
<td></td>
<td>Penalty waiver</td>
<td>.281</td>
<td>.209</td>
<td>.245</td>
</tr>
<tr>
<td></td>
<td>Agency notice</td>
<td>.019</td>
<td>.136</td>
<td>.118</td>
</tr>
</tbody>
</table>

a. Dependent Variable: financial performance of county governments in Kenya
The linear equation was then deduced as: \( Y = 3.315 + 0.409X_1 + 0.245X_2 + 0.118X_3 \)

This section measures relationship between variables using standardized coefficients beta (\( \beta \)) which indicates the level at which independent variables will be affected when dependent variable is altered, as in table 4.11. Based on results in table 4.11 and the linear equation, the researcher found out that:

When other factors remaining constant, financial performance of county governments in Kenya will be affected by 3.315 as a constant figure and 0.409 of e-payment systems the first independent variable. Based on the results, it is clear that relationship between financial performance of county governments in Kenya and e-payment system exists.

Results indicates that penalty waiver has a positive impact on: financial performance of county governments in Kenya, since when other factors remain constant, financial performance of county governments in Kenya will be affected by a constant beta of 3.315 and 0.245 of penalty waiver.

Based on the third variable of study, the researcher found out that Agency notice has an effect of 0.118 of relationship with financial performance of county governments in Kenya when other factors are not changed hence indicating relationship between variables.
CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This is the final chapter in this study which gives the summary of the findings, conclusions, recommendations of the study based on the objective of the study and suggestions for further findings. It comes after identifying the background, problem at hand and the objectives in chapter one, literature review was done in chapter two, chapter three set out the methodology that the study used to collect data and chapter four analysed the data obtained from the study. The chapter finally presents the suggestions on other findings and basically focuses on areas to be improved in relation to effects of revenue collection strategies on financial performance of county governments.

5.2 Summary of Findings

The purpose of this study was to determine effects of revenue collection strategies on financial performance in county governments. Effective determination of the general objective was majorly relying on the outcome of specific objectives which were to determine effects of e-payment system, penalty waiver and also agency notice. This section presents summary in relation to the study independent variables.

5.2.1 E-payment System

This section presents summary of findings in relation to the first objective of the study which was to determine the effects of e-payment system on performance of county governments. According to the findings, it was established that e-payment system has enhanced revenue collection in the county government with secondary data indicating
effectiveness of 58% in Nairobi City County, 53% in Kiambu County and also 47% in Machakos County hence indicating major stake in total revenue collection strategies. The study also identified that e-payment system has been not only used to facilitate revenue collection but also curtail corruption in financial transactions hence contributing to financial performance. Other benefits which were considered to fuel increased use of e-payment system include reduced operation cost and also effective monitoring and control mechanisms. Findings also indicated that Nairobi city county has been leading in adoption of e-payment system flowed by Kiambu and finally Machakos county where revenue collection has been witnessed to grow in ceteris paribus.

5.2.2 Penalty Waiver

This subsection presents results summary of findings in relation to the second objective of the study which was meant to determine the effects of penalty waiver on financial performance in county governments. Findings in table 4.4 of the study and 4.5 indicated that although penalty waiver is a new strategy, its effectiveness has been witnessed in Kenya county governments with Nairobi city county recording 20% effectiveness, Kiambu County recording 17% and Machakos recording highest (22%). Findings also indicated that penalty waiver encourages land owns to pay their land rates at a cheaper cost since it has been direct linked with relinquishes land owners heavy financial burdens hence making it cheaper to comply. Adoption of penalty waiver has not only been directed towards land owners but also it has been witnessed to take other direction in Machakos county where small scale business enjoy free levies hence encouraging investments.
5.2.3 Agency notice

This section presents results in relation to effects of agency notice on financial performance of county governments. Findings in table 4.7 and 4.8 respectively indicated that agency notice has been the second best effective strategy towards revenue collection in county governments where Nairobi recorded effective rate of 17%, Kiambu recorded 24% while Machakos recorded 26% effectiveness. This was measured in terms of total notices approved as cases in relation to effective cases won and paid to the county governments. Findings also indicated that issue of agency notice with legal suit follow up encouraged defaulters in one way to pay their overdue taxes and land rates hence indicating effectiveness of agency notice on financial performance in County governments.

5.3 Conclusion

This chapter focuses on conclusions based on main findings of the study. Based on results in the first objective of the study which was meant to determine effects of e-payment on financial performance of county governments, the study concluded that in deed e-payment system has been a major factor towards financial performance. The researcher ascertains that adoption of e-payment system has not only contributed to effectiveness but also transparency in the public sector. Every single transaction can easily be traced and monitored hence minimising cases of financial theft and corruption. E-payment system has also been associate with cost effectiveness and also time saving which results to effective delivery of service to the citizens hence enhancing financial
performance in county governments. In relation to the inferential statistics, it was clearly identified that relationship between variables exist.

In the second objective of the study which was mean to determine the effects of penalty waiver on financial performance of county governments, the study concludes that indeed penalty waiver has been effective revenue collection strategy in the county government. Relinquishing taxpayers part of their debts encourages them to pay their debts early enough to avoid future incremental debts hence resulting to efficiency in debt payment. Other aspects such as relinquishing levies on small scale business attracts investments hence resulting to building strong investment network which is quite significance for county development which has positive effect on financial performance. Through regression analysis, the study identified that relationship between penalty waiver and financial performance of county governments exists.

In relation to the third objective of the study which was meant to determine the effects of agency notice on financial performance in county governments, the study concludes that indeed agency notice is quite effective strategy adopted by the county governments. Agency notice serves to recover both doubtful debts which the county government owes tax payers and other dues. Although not quite effective as e-payment system, the study concludes that with effective application, it can be used effectively towards ensuring that county government collects defaulted revenue which possess greater risk in counties financial performance. Inferential statistics also identified that relationship between independent and dependent variable exists.
5.4 Recommendations

This section presents study recommendations on areas to be improved in relation to study objectives towards effective financial performance. Recommending on the first objective of the study, it is clear e-payment has brought really significance change not only in selected county governments, but also to all county government. Proper evaluation of e-payment subsystem should be conducted since e-payment serves us with security risks. Cases of electronic theft have been witnessed in Nairobi County and it the duty of county administration to ensure that public funds are managed fully with minimal linkages. The study also recommends that county governments should have effective stakeholders relationship towards making sure that effective e-payment has been conducted with minimal challenges. The study recommends that Machakos county government should specifically concentrate on full implementation of e-payment system because its effectiveness has been below 50% threshold. In relation to Kiambu county government and Nairobi, skilled personnel should be employed to effectively run the new system. Challenges such as the aged who are not conversant with technology hinders its application and development.

In recommending on the effects of penalty waiver on financial performance of county governments, the study recommends that penalty waiver should not only be directed towards land rates but should be extended to other incremental risk default factors such as defaulted county rates, defaulted small business licences and also defaulted tax. The county government should also create room for individuals to explain their concerns in relation to default and allow them to state period of payment which should be treated
valid and breech should lead to legal implications. The county government should also enhance policy review in relation to penalty waiver because the policy hasn’t been effectively implemented.

In relation to the last objective of the study which was meant determine the effects of agency notice on financial performance of county governments, the study recommends that issues of agency notice should be carried effectively with good legal follow up to ensure that high level of compliance and also winning legal suits has improved. Agents should be in a position to recover all due revenues to the county government at the minimal cost possible. Networking and also good record keeping should be conducted by the county government towards ensuring that data isn’t lost in the process of recovering from doubtful debts. Other counties should also consider implementing agency notice as a revenue collection strategy since its effectiveness has been potentially felt such as in Nairobi City County. Private partnership should also be applied in various situations towards effective applications agent principle relationship.

5.5 Suggestions for Further Research

Revenue collection strategies is quite a broad area of study. The prevailing study focused only on three revenue collection strategies. It is in researchers believe that through extensive study, other factors can be identified and it is the duty of future studies to focus on identification of other revenue collection strategies. Further studies should also focus on a wider scope and also identification of new study problems or expand on the existing
problem to accommodate more counties and even the private sector towards understanding revenue collection strategies.
REFERENCES


APPENDICES

Appendix I: Questionnaire

I would like to thank you in advance for participation in the prevailing questionnaire. Please consider attempting all the questions.

PART A: BACKGROUND INFORMATION

This section asks about your personal details. Please tick (√) in the appropriate box or write your answer in the space provided

1. Gender?
   Male □
   Female □

2. Please indicate your age group under the following age category
   20-25 years old □
   26-30 years old □
   31-35 years old □
   36-40 years old □
   40-45 years old □
   Above 46 years old □

3. How long have you been working with the County Government?
   Less than 1 year □
   2-3 years □
   Over 4 years □

4. Can you say revenue collection in your County government is effective?
   Yes □
   No □

Explain..............................................................................................................

..................................................................................................................
PART B: E-payment system and financial performance

The purpose of this part is to investigate whether e-payment system as revenue collection strategy has contributed to financial performance of county governments. (Tick where appropriate)

Kindly, state the extent to which you agree with the following statements

<table>
<thead>
<tr>
<th>The extent to which I agree with.......</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. E-payment systems have enhanced revenue collection in the county government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Through e-payment system, the county governments have been able to curtail corruption hence contributing to financial performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. E-payment system has been one of the benefits associated with e-payment systems in the county governments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Monitoring of financial transactions in the county government has been effective as a result of effective application of e-payment system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Other comments on E-payment system and financial performance

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

57
PART C: Penalty waiver and financial performance

The purpose of this part is to investigate whether penalty waiver as revenue collection strategy has contributed to financial performance of county governments. (Tick where appropriate)

Kindly, state the extent to which you agree with the following statements

<table>
<thead>
<tr>
<th>The extent to which I agree with.......</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Penalty waiver has a positive effect on financial performance of county governments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Penalty waiver encourages early payment of land rates hence contributing to financial performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Penalty waiver has not been effective towards enhancement of revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Penalty waiver relinquishes land owners heavy penalties involving huge amount of money hence contributing to enhanced future revenue collection.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Other comments on revenue collection and financial performance

.................................................................................................................................................
PART D: Agency Notice and financial performance

The purpose of this part is to investigate whether Agency notice as revenue collection strategy has contributed to financial performance of county governments. (Tick where appropriate)

Kindly, state the extent to which you agree with the following statements

<table>
<thead>
<tr>
<th>The extent to which I agree with………</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Issues of agency notice has positive effect on revenue collection strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. County government only issues agency notice on defaulted levies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Issue of agency notice has minimal influence on revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Through issuing agency notice, defaulter speed their payment process hence affecting revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Other comments on Agency notice and financial performance

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

.....................................................................................................................................................................
## Appendix II: Budget

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>COST (Ksh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic Identification</td>
<td>500</td>
</tr>
<tr>
<td>Background of Study</td>
<td>1500</td>
</tr>
<tr>
<td>Literature review collection</td>
<td>3000</td>
</tr>
<tr>
<td>Research methodology</td>
<td>1200</td>
</tr>
<tr>
<td>Printing proposal draft</td>
<td>2012</td>
</tr>
<tr>
<td>Travelling cost</td>
<td>4000</td>
</tr>
<tr>
<td>Presentation of final proposal</td>
<td>3500</td>
</tr>
<tr>
<td>Data collection and analysis</td>
<td>10,000</td>
</tr>
<tr>
<td>Printing final project</td>
<td>8,000</td>
</tr>
<tr>
<td>Miscellaneous expenses</td>
<td>5000</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>38,700</strong></td>
</tr>
</tbody>
</table>
## Appendix III: Work Plan

<table>
<thead>
<tr>
<th>ACTIVITY /MONTH</th>
<th>OCT 2017</th>
<th>NOV 2017</th>
<th>JAN 2018</th>
<th>MARCH 2018</th>
<th>APRIL 2018</th>
<th>MAY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Topic Identification</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Background of Study</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Literature review collection</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Research methodology</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Compiling drafted proposal</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Presentation of final proposal</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Data collection and presentation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Presentation of final project</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>