ELECTRONIC COLLECTION SYSTEM AND REVENUE PERFOMANCE IN THE COURTS IN KENYA

Approved for Moderation

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BY

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DECLARATION

This research project has been done by me and has never been submitted for examination in any college, University, or any other institute of higher learning.

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This research project has been submitted for presentation with my approval as the University Supervisor.

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I thank Almighty God for good health and for bringing me this far, His grace was sufficient.

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DEDICATION

This work is dedicated to my late grandmother Bethseba Khamala, the late Uncle Cornelius Wandama, the late Jane Auma and my wife Annet Phoebe Akinyi.

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ABSTRACT

Revenue collection systems in Africa and by extension in Kenya are manual and are prone to fraud, forgery and manipulation. It is difficult to trace fraud in these system and a lot of resources are being used in monitoring and controlling it. Implementation of electronic system has ability of enhancing level of revenue collection. Electronic systems can improve performance and affirms that majority of both private and public institutions around the world are modernizing their operations to improve on efficiency and effectiveness. The objective of the study was to establish the effect of electronic collection system on the revenue performance in the courts in Kenyan. The research was guided by the Technological Acceptance Model, Innovation of Diffusions Theory and Agency Theory. The research design was descriptive. This study collected secondary data. The data was collected for a period of forty seven months beginning in the first month of the 2016/17 financial period to the 11th month of the 2019/20 financial year. The data collected was time series data. The research utilized inferential statistics entailing correlation and multiple linear regression analyses. The results of the research showed that mobile revenue, direct banking revenue, agency banking revenue, as well as manual collections were significantly correlated at the 5% significance level to revenue collected and that they all have a positive significant correlation with revenue collection. Analysis from multiple linear regressions showed that the model entailing; mobile revenue, direct banking revenue, agency banking revenue, as well as manual collections explains to a great extent the revenue performance by having a co-efficient of determination of 61.2%. Further findings were that the model entailing; mobile revenue, direct banking revenue, agency banking revenue, as well as manual collections significantly predicts revenue performance. The final findings were that mobile revenue, direct banking revenue, agency banking revenue, as well as manual collections did not individually have a significant relationship with access with revenue performance. Policy recommendations are made to the government officials and policy formulators in the Treasury and specifically the boards of various government organs that collect revenue, to try to digitize revenue collection systems to boost revenue performance. Recommendations are also generated to the management of various government organs the collect revenue, consultants, and economists to estimate and base their projected revenue estimates and targets based on the digitization of revenue collection. They should particularly be bullish about tax revenue collection when revenue collection has been digitized. In addition, the management of various government organs the collect revenue should gauge digitization of revenue collection levels to determine the level of revenue collection enforcement. Thus, during times of digitization of revenue collection, they should increase the intensity of enforcement because more revenue can be obtained

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Africa's and Kenya's revenue collecting systems are prone to fraud, falsification, and manipulation (Gicho 2018). It is difficult to trace fraud in these system and a lot of resources are being used in monitoring and controlling it. Implementation of electronic system has ability of enhancing level of revenue collection. Mwangi & Kiarie (2016) concur that electronic systems can improve performance and affirms that majority of both private and public institutions around the world are modernizing their operations to improve on efficiency and effectiveness.

Many theories support innovation in organizations and they give the basis on which technology is executed in the organizations. Diffusions of Innovation Theoretical analysis elucidates how, why, and at what pace novel ideas and technologies propagate (Rogers, 1962). According to Agency Theory, it is an economic theory that considers a corporation as a collection of contracts between self-interested persons. An agency relationship is created when a person (the principle) allows another person (the agent) to act on his or her behalf. Issues occur in this connection as a result of the possibility that the agent would behave opportunistically and not in the principal's best interests (O'Donnell & Sanders, 2003).

The Judiciary is going through organizational restructuring and focusing on achievements of its blue prints developed which are strategic changes in terms of strengthening stakeholders' partnerships, projects activities for growth, implementing the use of technology in its courts operations and also in pursuing public private partnerships by adopting use of electronic revenue collection systems such as Judiciary Financial Management Information System (JFMIS) and Case

Tracking Systems (CTS), as reported in State Of The Judiciary Annual Report Of 2017/2018. These changes comprises their role of collecting revenue for the National Government through fees from services rendered, fines from criminal penalties, monies forfeited to the state as well as other income directly deposited with Treasury. Internal and external factors, as well as the need to improve internal systems and operations, all contribute to the shifts. This is aimed at increase revenue collection and reduce the dangers associated with the dealing with hard cash.

1.1.1 Electronic Revenue Collection System

Different researchers have diverse understandings on the meaning of revenue collection systems. A cash transfer may be made from the comfort of your home without having to visit a bank using an electronic system, as defined by Okiro (2015). Shah (2016) described electronic revenue collection as the use of electronic and telecommunication networks to deliver a wide range of value-added products and services to customers. According to Fatonah et. Al (208) when using Electronic revenue collection one need to ascertain the usage of Electronic media as mode of receiving cash and not hard cash. Mwangi & Kiarie (2016) argues that Electronic systems has replaced manual way of operation. Information and Communication Technology (ICT) has significantly simplified operating processes and procedures in organizations thus enhancing organizational effectiveness and efficiency which has led several institutions, departments and ministries around the country to adopt the use of electronic systems in delivering public services (Kabir et al., 2015). Electronic revenue collection services make revenue collection convenient, fast and available throughout the transparency, effective management and accountability using of public finances.

Electronic Collection system is progressively gaining momentum in revenue collections in modern society (Kabir et al., 2015). The researchers identified efficiency, convenience and timeliness in performance as the driver of this changing trend. (Okiro (2015) alludes that sound electronic system signifies achievement fueling productivity in the economy. The system aids in overcoming the challenges faced with manual process. He mentions this challenges such as corruption practices if eliminated would ensure that all projected revenue is collected hence increasing the revenue collection performance.

Adequate internal generated revenue is important for growth, development and survival of any organization including the country at large. The quantity of money raised to pay for necessary infrastructure is critical to both the country's economic and social progress (Akintoye and Tashi, 2013). Kenya's tax collection performance has been hindered by a number of issues as outlined by Owuor, Chepkuto, Tubey, and Kuto (2012). According to Ismail (2016), the major issue with revenue collection is the deterioration in the performance of revenue collection systems as a result of official corruption in the workplace.

1.1.2 Revenue Performance

Taxation and fees collection is central to the government way of generating revenues hence financing and propelling various planned investments, developments and delivery of services in the country. Analytical approximation put financing gap in sustaining development agenda in developing countries at about $2.5trillion yearly. This gaps need to be bridged by heightened private-sectors investing in sustainable incentive policies. However, the institutions that largely

need revenues such as judiciary encounter myriad of challenges to collect revenue (www.worldbank.org).

The Central Bank of Kenya considers tax, customs charges, profits from state-owned companies, capital revenues, and foreign aid to be income (2021). Government revenues are used to determine the government's overall budget balance. In its report, the bank states that government revenue in Kenya has decreased to 277.05Kes Billion in August from 1775.27 Kenya Shilling Billion in June 2021, all these revenue performance are from collections of public thus the Judiciary included.

Mohammed & Muturi (2018) alludes that budget deficits in national governments are largely caused by ineffective revenue collections systems yet effective operations need adequate revenue. This has led to various Institutions to enhance ways of collecting revenue that raise the level of revenue mobilizations and reduce misapplications of these scarce economic resource which has been of great concern in government institution Judiciary of Kenya included. It is believed that most developed countries run most advance revenue collection systems and policies which optimize revenue collections. In Developing countries things are opposite as they are thought to harbor inefficient systems (Mohammed & Muturi, 2018).

1.1.3 Judiciary in Kenya

Even before the colonization of Africa, Kenya and other nations like it had their own forms of alternative dispute resolution such as reconciliation and mediation that they used to resolve their conflicts. Kenya's legal system has seen a dramatic shift since its independence, from dual to one that applies both English law and African customary law, according to the adoption of the 2010

Constitution. Currently there are a total of one hundred and twenty seven courts in Kenya (Hussein, 2003).

Judiciary instituted E-court measures to reduce impacts of Disruptions caused by Covid-19 thus assuring litigants for fair trial and access to justice. A course that has received both attracting praises and criticism. The E-court process stimulates fair access to justice and simplify processes for the court users. Digitization in judiciary is a strategy in the blue print (2017-2021) scheme to re-model processes which litigants and public perceives to have collapsed. Financial support of the International Development Law organization (IDLO) has promoted the digitization and Judiciary working to achieve its set targets of reducing case backlogs and manual operations, processes and procedures since its inception. The process is to have old filing methods and revolutionizing physical files into electronic media which seems to produce positive and faster outcomes to court users (Juma, 2020).

Government and non-governmental organs have increased interest in collection systems as an indispensable way of stabilizing both financial and developmental goals of the country. They support economic activity, create confidence and growth in consumer and condense transaction costs (KIPPRA, 2018). Since the promulgation of Constitution 2010, the judiciary has undergone and still undergoing significant transformation in reducing case backlogs, in strengthening its corporations with its stakeholders to aligning its goals and cement its structures to warrant access to justice. In revenue matters, the judiciary is guided by Constitution, Public Financial Management Act, Judicial Service Act and Circulars from the National Treasury touching on finance matters. It has projects and activities such as Case Tracking System (CTS) and Judiciary

Financial Management Information (JFMIS) automating all court registry functions and Accounts operations at each court station for the purpose of strengthening its systems and improve public service delivery. The e-court projects facilitate case filing, court fees assessment, uploading of court orders on cash bail, fines and fees and generating payment registration numbers and revenue receipts through integration of CTS and JFMIS with KCB group and Safaricom Mpesa revenue collection. The integration is an end to end process where registry functions and Accounts operates electronically up to and including the creation of an electronic receipt with instant notification to the customer.

1.2 Research Problem

For electronic revenue collection systems initiative to achieve its intended goal there is need for efficient and effective leadership and resources to mitigate on implementation failure (Kotter, 2007). According to Oakland and Tanner (2007) disagreement is observable on how each institution implement and executes changes as driven by external and internal factors. Slack & Munz (2016) claim that as a result contingency issues, each organization will execute its change according it is plan and available resources.

The Judiciary has been and is undergoing digitization transformation (SOJAR, 2019). The drivers that has necessitated this digitization include covid-19 pandemic, increased demand on access to justice from the public and litigants, fair trial and delayed justice experienced in the corridors of justice, increased case backlog, loss of files of litigants, lack of timely proceedings and pressures to be efficient and effective for success in the government sector. Majority of devolved government institutions have managed digitization differently based on the drivers of change. This

has given the researcher a need for studying the concept of electronic revenue collection and revenue performance at the judiciary.

Numerous research have been done on revenue collection systems and revenue performance. The study of IFMIS and cash management in the Eldoret West District Treasury by Odoyo is an example of Kenyan research on IFMIS and performance in the country (2014). When it came to the County Government of Nakuru's procurement performance, Njoroge and Wanyoike (2016) looked at the impact of an integrated financial management information system, while Biwot (2015) investigated on integrated financial. These few studies on this area have only focused on other areas of performance and therefore difficult to quantify their effects on judiciary performance this therefore creates a gap which this study seeks to fill.

For the country to develop, it is prerequisite to improve its judicial efficiency which remains a good indicator of public sector performance. Improving revenue collection process and procedure is one way to achieve the foresaid efficiency. Empirical studies have been done at judiciary but no research on the electronic collection systems and revenue performance surfaces. The research will utilize a descriptive study design to bridge the gaps left by earlier studies which did not attempt the design to answer the question on revenue collection systems and revenue performance at the judiciary?

1.3 Research Objective

The primary goal of this research is to determine the impact of electronic collection systems on revenue collection in Kenyan courts.

1.4 Value of the Study

Electronic collection and related subjects like transformation and organizational theory will benefit from this research. Scholars and researchers will find it resourceful source of knowledge. The existing knowledge gap will be bridged by the findings of the research work.

Judicial administrators in judiciary will find revenue performance measuring knowledge from the research work as a tool to set targets in the performance and measurements units. Monitoring and Evaluation of revenue performance will be enhanced as any deviations from planned initiatives will meet appropriate corrections. It will handle issues of electronic system and behavioral resistance and any factors which may limit the implementation of the digitized systems.

Right implementation of practices and supervision will be enforced. Judiciary being an arm of the government and funded by the government and also other non-governmental institutes, the research will be significant to them in monitoring how judiciary is progressing. The government will have advancement in leadership skills on the judicial management.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Overall objective of research will be examining electronic collection system and revenue performance in Western Region Courts, there are several aspects in relation to e-collection which have been identified by other researchers. The main aspects included Internet banking, mobile banking and ATM banking. The following sections include critically reviewed scholars examining the effect of different aspect of electronic revenue collection system and revenue performance in Western Region Courts.

2.2 Theoretical Review

The theoretical framework links the relationship between the abstract and the reality in research study and guides researcher on determining what to measure as well as statistical relationships to consider (Oyendo, 2021). This study will be underpinned by Technological Acceptance Model, Innovation of Diffusions Theory and Agency Theory.

2.2.1 Technological Acceptance Model

Davis introduced the Technological Acceptance Model (TAM) in 1986. It is a further development of the Theory of Reasoned Action (TRA) Model. As a consequence, it has replaced the Theory of Reasoned Action, and its digital features, perceived usefulness, and perceived simplicity of use highlight the benefits of adopting modern technology. Davis (1989) said that perceived usefulness is the point which one considers the improvement derived from using a given technology while perceived use is to extent to which one recognizes the use of a new technology will enable him or her to find it stress-free performing tasks through the use of technology.

According to Alsajjan and Dennis (2016) in their study of investigation of consumer reception of automated services where they used TAM and clarified the relationship between variables of purported comfort of using and comfort lead to self-efficiency, perceived credibility and perceived ease of use influence implementation of automation revealed significant than other variables in impelling consumers to adopt mobile banking services.

Lee, Cheung and Chen (2005) in their analysis of interactions between variables driving approval of automated services in Malaysia through use of TAM found that the model is able to forecast the intent of adopting mobile banking, perceived usefulness and awareness were given high importance and the results showed usefulness since they showed that the variables had weighty effect on individual objective of using mobile banking.

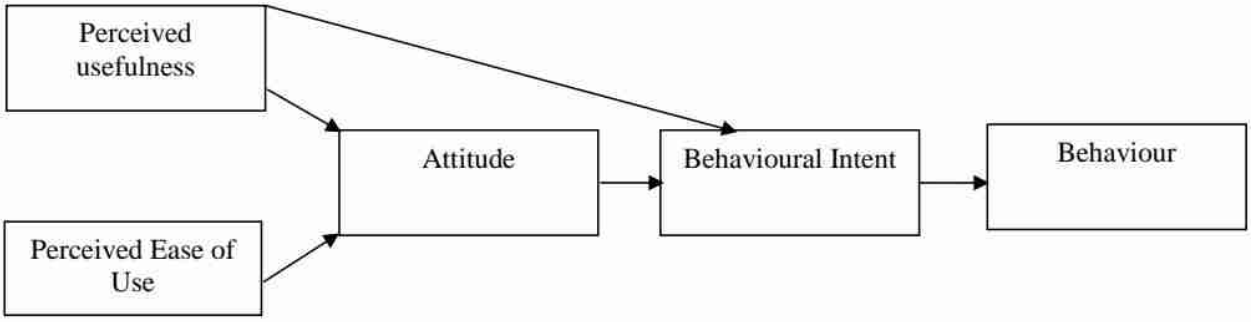

Figure 2.1: Technological Acceptance Model

TAM like some other models have had confines such as limitation on details, failure to recognize collective practices of information system growth, application, ability to foresee results which was numerously redefined. In its criticism other scholars have argued that the theory may not apply when new innovation is imposed by senior managers and specifically the attitude on an individual or employee as a group is negative in the innovation. Saga and Zimud (1994) criticized this model

in its conceptualization, subjective norm based on the Theory of Reasoned Action suggesting difficulties distinguish technological behavior resulting from external influence on one's attitude. Carter and Belanger (2005) have therefore recommended integrating Technological Acceptance Model with other models such as Unified Theory of Acceptance, Use of Technology and Innovation Diffusion Theory so as to find more precise and profound account of the variables.

The model is therefore relevant and applicable to all digital introduced platforms in the organization as the variables have been explored to study the behavior of respondents to the technology and their acceptance of use. This study too will have to examine it the same is applicable to this study and see its effect from the questionnaires that the respondent will answer.

2.2.2 Innovation Diffusions Theory

According to Rogers (1995) innovation is an opinion which is unique to the recipient in the process through which new technology transferred through other media to the targeted users. Theory of Diffusion of Innovation, developed by Rogers in 1962, shows how creativity and novelty are accepted in diverse cultures.

2.2.3 Agency Theory

Agency eminent when one acts on behalf of another (Shapiro, 2005) and where parties work together there are associated risks. Different people have different attitude towards risk and therefore this has to be tamed. Agency theory has been used in many fields yet it still remain controversial to date (Eisenhardt, 1989). To resolve conflicts that develop because of a principle's

inability to see an agent's behaviors and their consequent cost or because a principal and an agent have divergent views on risk and risk preferences, agency theory may be used (Eisenhardt, 1989).

Corporate governance explains how corporations are directed and controlled to enhance stakeholders' interest. Judiciary is owned by Kenyan citizens who have entrusted it to a section of judicial staff and judicial officers to run it according to the structures set in the constitution of Kenya 2010. Corporate governance has piqued public attention due to its significance in society during the global financial crisis and many accounting errors, as stated by Mustapha & Che Ahmad (2011), and they point out the concerted worldwide effort being made to improve corporate governance. The importance of agency theory to many organizations, scholars and fields is also stressed by Eisenhardt (1989) (Mustapha & Che Ahmad, 2011) in their research mention the measures in place to mitigate the impact of insufficient and malfunctioning corporate governance have been suggested and attempts made to improve those mechanisms to monitor organizations with such malfunctioning corporate government guidelines. According to Jensen and Meckling's 1976 theory of agency, the procedures are meant to match the interests of the stakeholders with those of the agent. In their theory they argued that there exists agency problem-conflict of interest caused by separation of management and control in running organizations. A research by Mustapha and Che Ahmad (2011) stated that corporate governance problems and agency theory are linked since they all center on the separation of ownership and management responsibilities, which results in principal-agent conflicts. According to Lan and Heracleous (2010), agency theory has formed the foundation of corporate governance.

2.3 Empirical Studies

On a global look, different studies have been developed determining the effects of e-payments and collections on performance of institutions with specific studies leaning on financial institutions. Singh and Malhotra (2015) while acknowledging the paradigm shift in the use of technology in different institutions conducted and empirical investigation of the Indian Sector with an aim of filling the knowledge gaps that existed with respect to internet banking. They used descriptive research design to a respondent number of 271 employees in the banking sector. The study found that the high advances made in technology resulted into incorporation of information systems which has made a great move on the banking operations. There is a gap in the research because the judiciary has not yet integrated the JFMIS to separate internet banking from individual payments, which the researcher would recommend as a follow-up study by Okiro and Ndungu (2013) on determining the impact of internet banking on financial institution performance limited to balance inquiry. Additionally, the study's backgrounds would be different because it examined a public institution.

In a study of how mobile banking affects the overall operations and performance of commercial banks Shaikh and Karjaluoto (2015) investigated the prevailing studies on embracing mobile banking to mapping the major theories adopted with a view of establishing how the adoptions resulted in improved performance and profitability. The main driver was on the impact of electronic commerce on the worldwide business setting where they recognized that m-banking literature is disjointed even though it relies on technology acceptance in line with a number of alteration. The researchers established that the main drivers to the business world in technology are lifestyle and devices, attitude, perceived usefulness and convenience in the general world

operations. The research further established existence of positive correlation between m-banking adoption and performance of the commercial institutions. Aamir et al., (2011) established restructuring of the taxation process as essential factor in an economies revenue collection. Direct reforms at federal level was a vital factor in reformations in Pakistan additionally in India one of the developing countries, tax revolution was to correct disparities (Panday, 2006).

An investigation on how computerized collection affects the performance of the Trans Nzoia county government, which comprised seven managers, fifteen accountants, and forty revenue agents, was conducted by Madegea Makokha and Namusonge (2018), who employed descriptive surveys. The findings showed that there was a significant amount of damage.

A 2018 report by the Commission on Revenue Allocation stated that the Constitution grants counties the freedom to generate revenue to implement their functions, and categorized their sources of revenue as revenue generated locally, received from the national government, and externally generated revenue. The commission thus recommended ways of enhancing local revenues through automation and reported that a system was developed jointly with strict guidelines followed to procure revenue management system. In their review study in fifteen counties on the impact and gaps in the revenue automation the study found that even with the implementation of automation revenue collection, only a fraction of the revenue streams had been captured. This study thus would take note of this and apply it on whether The Judiciary has captured all its avenues of resources on its revenue collection systems even as the cost of revenue collection and administration still remains high.

Otieno, Oginda, Obura, Alla, Ojera, and Siringi (2013) investigated the impact of information technology on tax collection by local governments in Homa Bay County, Kenya, using a structured cross-section survey with a 2007 target population. The study confirmed a strong positive relationship between information systems, productivity, internal controls and resistance to change as derailment of the implementation of the information system. This research will find out whether or not the participants in this study see change as natural, and whether or not they are also delaying the deployment of electronic revenue collection in the judiciary. Kenyan researchers found that top management support, as well as policy and resources allocation, were crucial to the use of ICT in the country. There were some positive stimuli from ICT, but these were not examined in this research. This research will help the court system close the gap on this issue.

2.4 Summary of Literature and Research gap

Otieno et al. (2013) found that the usage of information systems boosts revenue collection. The researchers however did not identify the factors which affect the revenue collection. Ndunda, Ngau and Wanyoike (2015) in their analysis of factors influencing optimal revenue collection found that competency of clerks and policy framework compliance affects revenue collection. The study did not mention anything on ICT and revenue collection. E-payment systems, according to Okiro (2015), improve revenue collection because of their use of information and communication technology. Only e-payment was examined, not the use of ICT to collect. Researchers have determined that the effectiveness of tax collection is directly impacted by the use of ICT in tax administration and registration. The study majored on one region of KRA not mentioning the consideration of ICT on revenue collection a fact that made it difficult to generalize the study.

2.5 Conceptual Framework

In a conceptual framework, variables that are independent and dependent are linked. It indicates interactions between electronic revenue collection systems and revenue performance in the Courts.

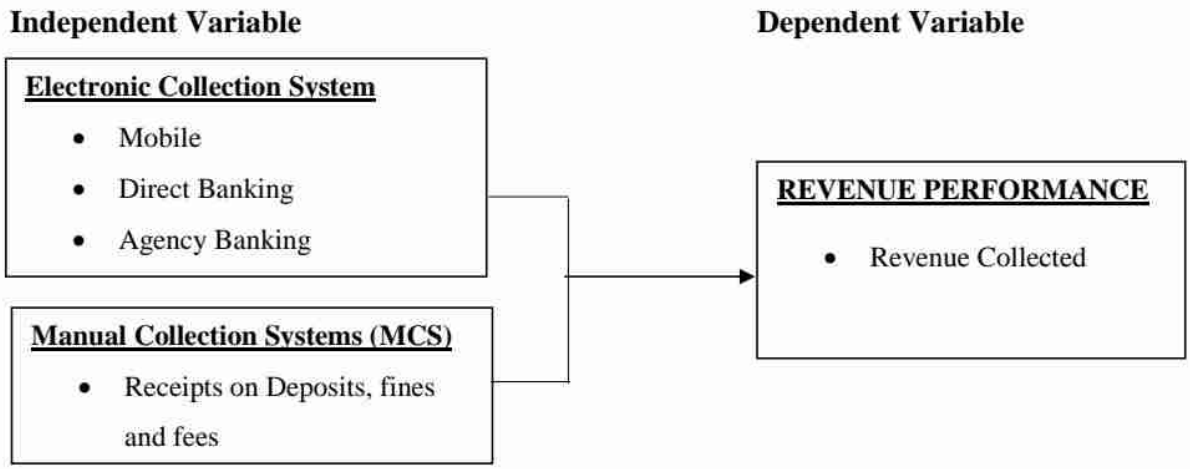

Figure 2.2: Conceptual Framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Methodology, population size, sampling, data collecting, and analysis are all discussed in this chapter.

3.2 Research Design

The researcher used a descriptive study methodology to show how electronic collecting systems effect income. Okiro (2015) selected the design because it accurately depicts the situation of circumstances. A descriptive research approach was appropriate for this study since it explained the current state of things about the functioning of an electronic collection system in the area of revenue collection for courts. Gicho 2018 used descriptive research design to accommodate both qualitative and quantitative elements which the research was interested in. Madegwa et al (2018) also used this design in understanding how automation impact revenue performance.

3.3 Study Population

All courthouses in Kenya were included in the study's population. The target population was 125 Court stations located in Kenya. The study analyzed the whole population, hence a census was applied.

3.4 Data Collection

Secondary data were acquired from all court accountants within the study zone. This was done through the use of secondary data capture form attached in Appendix I. Secondary data was obtained for the Financial Years between 20162017 and 2019/2020.

3.5 Data Analysis

A group analysis and comparison of the grouped data was performed. The Judiciary employed trend analysis to compare the time before and after the introduction of a revenue collecting system. According to Kothari, (2004) quantitative analysis is used to define the research area, relate and elucidate data gathered so as to investigate any comparisons and variance in structures within a given time frame normalize the relationship of electronic collection system as the independent variable and revenue performance as a dependent variable.

$y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$ ..... (i)

Where:

y = Revenue Collected

α = explains the value of performance without the inclusion of the independent variables

$\beta 1, \beta 2, \beta 3$ = Coefficients by which dependent variable (Y) changes per unit change in the independent variable (x)

$X1$ – Mobile revenue

$X2$ – Direct Banking revenue

$X3$ – Agency Banking revenue

$X4$ – Manual collections

3.5.1 Test of Significances

At the 95 percent confidence level, a p-value of 0.05 was considered statistically significant for regression analysis. The regression model's accuracy was checked by assessing the variance of the results. An indicator of the regression model's dependability was its F critical value and a p-value of less than 0.05.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

The present chapter focuses on data analysis, discussion, and interpretation of the study's findings. In this publication, diagnostic tests, inferential statistics, and research data assessment and discussion are the four components.

4.2 Descriptive Statistics

A descriptive study tries to explain or describe a subject frequently by establishing an outline of a collection of problems, individuals, or events, by collecting data and the tabulation of the frequencies of research variables or their relationship. It provides a range of research objectives such as; explanation of an event or characteristics linked with a subject population, approximation of extent of the population that possesses these features, and unearthing of linkages among varying variables (Ngechu, 2004). The research used descriptive statistics since they allow for generalization of findings, analysis, and associated factors. Institutional quality, the macroeconomic factors, and economic growth were examined in the study. The descriptive analysis included measures of central tendency that entailed mean together with deviation of standard, the median, and the mode. Measures of dispersion such as the minimum and maximum statistic, range were utilized. Measures of symmetry such as and Kurtosis and Skewness were also employed. Consequently descriptive data was obtained and the results are presented in Table 4.1.

Table 4.1: Descriptive Statistics

		Revenue Collected	Mobile Revenue	Direct Banking revenue	Agency Banking revenue	Manual collections
N	Valid	47	47	47	47	47
	Missing	0	0	0	0	0
Mean		186679897.74	38881184.40	54456998.38	20447485.87	72049719.39
Median		183732128.00	38689785.92	50673543.44	17673171.75	72611365.12
Std. Deviation		51372107.23	17580499.49	18954691.43	8992148.95	20360012.43
Variance		2639093400942623.50	309073962412565.50	359280327189949.00	80858742763371.34	414530106225569.75
Skewness		.374	.470	.437	2.188	-.938
Std. Error of Skewness		.347	.347	.347	.347	.347
Kurtosis		2.656	-.587	.193	7.664	2.148
Std. Error of Kurtosis		.681	.681	.681	.681	.681
Range		317441750.70	73797216.95	91261839.96	53566963.75	102388281.41
Minimum		39813387.00	11944016.10	12342149.97	7166409.66	8360811.27
Maximum		357255137.70	85741233.05	103603989.93	60733373.41	110749092.69

Findings in Table 4.1 show that the highest value for revenue collected is Kshs. 357,255,137.70 and the lowest value is Kshs. 39,813,387. The mean was Kshs. 186,679,897.74 and the value of the standard deviation depicts variability in revenue collected of ±Kshs. 51,372,107.23. The other measure of central tendency, that entailed the median, was Kshs. 183,732,128. The variance for revenue collected was Kshs. 2,639,093,400,942,623.50 while the range was Kshs. 317,441,750.70.

The data in the series is normally distributed because it has a kurtosis statistic lying within the range of -3 to +3 and a skewness statistic that lies in the range of -0.8 to +0.8. Thus the variable revenue collected is symmetrical and does not have outliers/heavy tails.

Additional findings in Table 4.1 reveal that the highest value for mobile revenue collection is Kshs. 85,741,233.05 and the lowest value is Kshs. 11,944,016.10. The mean was Kshs. 38,881,184.40 and the value of the standard deviation depicts variability in mobile revenue collection of ±Kshs. 17,580,499.49. The other measure of central tendency, that entailed the median, was Kshs. 38,689,785.92. The variance for mobile revenue collection was Kshs. 309,073,962,412,565.50 while the range was Kshs. 73,797,216.95. The data in the series is normally distributed because it has a kurtosis statistic lying within the range of -3 to +3 and a skewness statistic that lies in the range of -0.8 to +0.8. Thus the variable mobile revenue collection is symmetrical and does not have outliers/heavy tails.

Further findings in Table 4.1 also display that the highest value for direct banking revenue collection is Kshs. 103,603,989.93 and the lowest value is Kshs. 12,342,149.97. The mean was Kshs. 54,456,998.38 and the value of the standard deviation depicts variability in direct banking revenue collection of ±Kshs. 18,954,691.43. The other measure of central tendency, that entailed the median, was Kshs. 50,673,543.44. The variance for direct banking revenue collection was Kshs. 359,280,327,189,949 while the range was Kshs. 91,261,839.96. The data in the series is normally distributed because it has a kurtosis statistic lying within the range of -3 to +3 and a skewness statistic that lies in the range of -0.8 to +0.8. Thus the variable direct banking revenue collection is symmetrical and does not have outliers/heavy tails.

Additional study findings in Table 4.1 display that the highest value for agency banking revenue collection is Kshs. 60,733,373.41 and the lowest value is Kshs. 7,166,409.66. The mean was Kshs. 20,447,485.87 and the value of the standard deviation depicts variability in agency banking revenue collection of ±Kshs. 8,992,148.95. The other measure of central tendency, that entailed the median, was Kshs. 17,673,171.75. The variance for agency banking revenue collected was Kshs. 80,858,742,763,371.34 while the range was Kshs. 53,566,963.75. The data in the series is not normally distributed because it does not have a kurtosis statistic lying within the range of -3 to +3 and a skewness statistic that lies in the range of -0.8 to +0.8. Thus the variable agency banking revenue collection is not symmetrical but positively skewed and has outliers/heavy tails.

Final findings in Table 4.1 exhibit that the highest value for manual revenue collections is Kshs. 110,749,092.69 and the lowest value is Kshs. 8,360,811.27. The mean was Kshs. 72,049,719.39 and the value of the standard deviation depicts variability in manual revenue collections of ±Kshs. 20,360,012.43. The other measure of central tendency, that entailed the median, was Kshs. 72,611,365.12. The variance for manual revenue collections was Kshs. 414,530,106,225,569.75 while the range was Kshs. 102,388,281.41. The data in the series is normally distributed because it has a kurtosis statistic lying within the range of -3 to +3. However, the skewness statistic slightly lies out of the range of -0.8 to +0.8. Thus the variable manual revenue collections is slightly negatively skewed but it does not have outliers/heavy tails.

4.3 Diagnostic Tests

Prior to using linear regression, diagnostic tests were run to get the most accurate and reliable linear unbiased estimators (BLUE). Tests that were used included normality, homoscedasticty, and

multicollinearity, among other things. The normality of the distribution was assessed using the Shapiro-Wilk and Kolmogorov-Smirnov tests. To determine homoscedasticity, the Breusch-Pagan test was used, whereas tolerance and VIF were used to prove multi-collinearity.

4.3.1 Normality Test

Table 4.2 emphasizes testing of normal distribution for the study variables.

Table 4.2: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Ln Revenue Collected	.176	47	.001	.844	47	.000
Ln Mobile Revenue	.149	47	.011	.938	47	.015
Ln Direct Banking revenue	.078	47	.200*	.946	47	.030
Ln Agency Banking revenue	.109	47	.200*	.965	47	.171
Ln Manual collections	.234	47	.000	.673	47	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Kolmogrov-Sminor and Shapiro-Wilk significant values are both lower than α value (0.05) for the variables revenue collected, mobile revenue and manual collections, as shown in Table 4.1. Because of this, the data series of the variables do not follow a predictable pattern. All variables' data series must be normalized in order to correct the non-normality of the data distribution. However, the Kolmogrov-Sminorv and Shapiro-Wilk significance values for the variable agency banking revenue is lower than α value (0.05). Data series for this metric are characterized by their regular distribution. Fluctuating direct banking income has a Kolmogrov-Sminorv significance level of (0.05), whereas the Shapiro-Wilk significance level is less than (0.05). Although the Shapiro Wilk test is rare, it does not perform well when dealing with vast quantities of data, which is why the Kolmogorov-Smirnov test is complemented by it. Since the Kolmogorov-Smirnov test

is the more reliable normality test, its interpretation is chosen for the current study. Because the variable direct banking income has a Kolmogrov-Sminorv significance value larger than (0.05), it is regularly distributed.

4.3.2 Test for Homoscedasticity

Homoscedasticity test findings for all predictor variables are summarized in Table 4.3. It was decided that the findings would be based on the Breusch-Pagan analysis. Heteroscedasticity in SPSS is not explicitly supported. Nevertheless, there is a more complicated approach. To get the final variable, the study's predictor variables are regressed on the squared-off residuals, which are both standard and unstandard. Analysis of Variance results in the Breusch-Pagan test.

Table 4.3: Test for Homoscedasticity

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	4	.000	4.881	.003[b]
	Residual	.000	42	.000		
	Total	.000	46			

a. Dependent Variable: RES_1_SQ

b. Predictors: (Constant), Ln Manual collections, Ln Agency Banking revenue, Ln Mobile Revenue, Ln Direct Banking revenue

Consequently, the data series for the full response variables are heteroscedastic, as seen by Table 4.2 results. Researchers employed robust standard errors, a technique for unbiased standard errors under heteroscedasticity, to get OLS coefficients under heteroscedasticity.

4.3.3 Test for Multicollinearity

In Table 4.4, the findings of the VIF and the tolerance to determine multi-collinearity test are shown.

Table 4.4: Multicollinearity Statistics

Model		Collinearity Statistics	
		Tolerance	VIF
1	Ln Mobile Revenue	.069	14.440
	Ln Direct Banking revenue	.054	18.372
	Ln Agency Banking revenue	.272	3.672
	Ln Manual collections	.326	3.066

a. Dependent Variable: Ln Revenue Collected

Table 4.4 shows that the agency's baking income and manual collections have tolerance values more than 0.1, whereas the VIF value is between 1 and 10. As a result, multicollinearity does not exist among the predictor variables. However, the tolerance values of the mobile revenue and direct banking revenue variables are less than 0.1, while the VIF values do not fall within the range of 1 to 10. As a result, the predictor variables display multicollinearity. As a cure for multicollinearity, the variables were normalized.

4.3.4 Tests for Autocorrelation

Table 4.5 displays the results of an autocorrelation test using the Durbin-Watson Statistic.

Table 4.5: Autocorrelation Test

Model	Durbin-Watson
1	.985[a]

a. Predictors: (Constant), Ln Manual collections, Ln Agency Banking revenue, Ln Mobile Revenue, Ln Direct Banking revenue

b. Dependent Variable: Ln Revenue Collected

"Durbin-Watson" is a statistic that spans the range from 0 to 4. A score of 2 indicates that there is no association between variables. A positive autocorrelation exists if the values fall between zero and a number less than or equal to 2, whereas a negative autocorrelation exists if the values fall

between two and four, starting at a value greater than or equal to 2. In statistics, numbers that lie within the range of 1.5 to 2.5 are considered normal, whereas those that fall outside of this range are deemed abnormal. Field (2009), on the other hand, believes that readings over 3 and below 1 are a clear cause for worry. Therefore, the data utilized in this panel is serially autocorrelated since it does not reach this criterion of 0.985 Durbin-Watson Statistic." Since the predictor variables were serially autocorrelated, lagged transformation was used to correct for autocorrelation.

4.4 Inferential Statistics

The relationship, degree, and direction of the link between responder and predictor variables are all determined using inferential statistics. Several linear regression and correlational analyses were used in this investigation, which are outlined below.

4.4.1 Correlation Analysis

Two or more variables are measured to determine the correlation between the values of those variables (Higgins, 2005). Correlation is a statistical term that refers to the linear connection between two variables and has a range of -0.1 to +0.1. (Skeran & Roger, 2009). Pearson's correlation, represented by (rs), was used in the current investigation, which used a ratio scale of measurement. When examining connections between ordinal variables, Spearman correlation is often used; Pearson correlation, however, is used to assess the strength of the association between continuous variables (Hauke & Kossowski, 2011). Results are summarized in Table 4.6.

Table 4.6: Correlation Analysis

		Ln Revenue Collected	Ln Mobile Revenue	Ln Direct Banking revenue	Ln Agency Banking revenue	Ln Manual collections
Ln Revenue Collected	Pearson Correlation	1	.796**	.938**	.761**	.750**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	47	47	47	47	47
Ln Mobile Revenue	Pearson Correlation	.796**	1	.916**	.847**	.233
	Sig. (2-tailed)	.000		.000	.000	.115
	N	47	47	47	47	47
Ln Direct Banking revenue	Pearson Correlation	.938**	.916**	1	.806**	.528**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	47	47	47	47	47
Ln Agency Banking revenue	Pearson Correlation	.761**	.847**	.806**	1	.219
	Sig. (2-tailed)	.000	.000	.000		.138
	N	47	47	47	47	47
Ln Manual collections	Pearson Correlation	.750**	.233	.528**	.219	1
	Sig. (2-tailed)	.000	.115	.000	.138	
	N	47	47	47	47	47

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

Table 4.6 shows that all of the predictor characteristics have a statistically significant link with revenue collected. Because they have lower significance values than (0.05). A statistically significant connection exists between variables A and B, according to the alternative hypothesis. It is impossible to reject the null hypothesis since all of the predictor variables have significance levels greater than or equal to α (0.05). As a consequence, at the 95% confidence interval, the predictor variables and the control variable are strongly linked to financial inclusion. They all have a positive significant correlation with revenue collection.

4.4.2 Multiple Linear Regression Analysis

The link between the predictors and the response variable was investigated using a multivariate linear regression model. There are two tests in Table 4.2 that show that not all variables included in this research had normally distributed distributions, hence the data series were standardized to correct for non-normality in the data sets. For each of the predictor variables utilized in this study, heteroscedasticity is shown in the following table (4.3). The study employed "robust standard errors," a technique for deriving unbiased standard errors of OLS coefficients under heteroscedasticity, because of the data series used. Lagged transformations were performed to the predictor variables as a cure for autocorrelation since all the data series included in the research were serially correlated.

There was a 5% threshold of significance used in the analysis of multiple linear regressions. Tests for between-subject effects and parameter estimates with robust standard errors were compared to study analysis significance values to see which had higher thresholds of significance. Critical values were also compared to F and T statistics in the research analysis.

The Coefficient of Determination (R Square) indicates the effect of changing the predictor variables in the research model on the response variable. R Square is 0.613 in Table 4.7, indicating that the model of mobile revenue, direct banking revenue, agency banking revenue, and manual collections accounts for 61.3 percent of the variance in revenue collected. Other factors not included in the model account for 28.7 percent of revenue collected variation.

Table 4.7: Multiple Linear Regression

Dependent Variable: Zscore: Ln Revenue Collected

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	28.173[a]	4	7.043	16.231	.000
Intercept	2.918	1	2.918	6.725	.013
ZLnMob_1	1.341	1	1.341	3.090	.086
ZLnDir_1	2.491	1	2.491	5.741	.021
LnAgen_1	2.022	1	2.022	4.661	.037
ZLnMan_1	13.870	1	13.870	31.964	.000
Error	17.791	41	.434		
Total	45.965	46			
Corrected Total	45.964	45			

Parameter	B	Robust Std. Error[a]	T	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	.297	.144	2.066	.045	.007	.588
ZLnMob_1	-1.843	1.954	-.943	.351	-5.789	2.104
ZLnDir_1	-2.634	1.807	-1.458	.153	-6.283	1.015
LnAgen_1	3.877	2.883	1.345	.186	-1.944	9.699
ZLnMan_1	3.558	1.934	1.839	.073	-.349	7.465

a. HC3 method

a. R Squared = .613 (Adjusted R Squared = .575)

Dependent Variable: Zscore: Ln Revenue Collected

It is also shown in 4.7 that the revised model's significance value (0.000) falls below the study's critical criterion of 0.05. (0.05). This suggests that the model that includes mobile revenue, direct banking income, agency banking revenue, as well as manual collections is inadequate to anticipate revenue received. The updated model's crucial F-value is 16.231; the F-value exceeds the critical value of 2.6 by a large margin. A model that includes mobile revenue, direct bank revenues and agency bank revenues and manual collections is appropriate for forecasting revenue collected since the F Value produced in this research exceeds the critical value.

Table 4.7 shows that income from mobile, direct banking, agency banking, and manual collections, taken separately, have no significant link to revenue collected. Their significance levels are all above the 0.05 critical threshold that was used in the research, which is why they are all considered significant. A two-tail test's critical T value is ±2.014103, and the T values obtained for each variable fall within this range. Consequently.

4.5 Interpretation and Discussion of Findings

The purpose of this study was to examine the effect of Kenya's computerized collection system on court income. It also specifically aimed at unravelling the impact of; mobile revenue, direct banking revenue, agency banking revenue, as well as manual collections on the revenue performance in the courts within Kenya.

Revenue collected was shown to be connected at a 5% significance level with the following: mobile revenue, direct banking, agency banking, and manual collections. All of them have a considerable positive link with revenue. According to further research, a model including mobile revenue, direct banking income, agency banking revenue, and manual collections accounted for 61.2 percent of the revenue performance in Kenya's courts. Moreover, the model that includes mobile revenue, direct banking income, agency banking revenue, and manual collection strongly predicts revenue performance in Kenya's courts. The final results showed that mobile revenue, direct banking income, agency banking revenue, and manual collections had no meaningful impact on revenue performance in Kenyan courts.

As a result, the Technological Acceptance Model substitutes the Theory of Reasoned Action with digital aspects, perceived usefulness, and perceived ease of use, all of which highlight the benefits of accepting contemporary technology. The model states that all digitally introduced platforms in the company are reliant on respondents' behavior and acceptability of usage, as the variables are. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with this theory.

According to Rogers (1995) innovation is an opinion which is unique to the recipient in the process through which new technology transferred through other media to the targeted users. Rogers' 1962 Diffusion of Innovation Theory (DOI) explains how creativity and novelty are accepted and endure across cultural divides. The theory implies that innovation can affect certain cultures like minimizing frauds thus increasing revenue collection. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with this theory.

The agency theory argues that there exists agency problem-conflict of interest caused by separation of management and control in running organizations. According to Mustapha and Che Ahmad, principal-agent conflicts originate from the separation of ownership and management responsibilities that is at the heart of corporate governance challenges (2011). Agencies are the foundation of corporate governance, according to Lan and Heracleous (2010). Technology can be an agency and monitoring cost which will reduce the principle-agency conflict. This can minimize frauds thus increasing revenue collection. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with this theory.

Singh and Malhotra (2015) while acknowledging the paradigm shift in the use of technology in different institutions conducted and empirical investigation of the Indian Sector with an aim of filling the knowledge gaps that existed with respect to internet banking. The study found out that the high advances made in technology resulted into incorporation of information systems which has made a great move on the banking operations. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with Singh and Malhotra's (2015) study findings.

In a study of how mobile banking affects the overall operations and performance of commercial banks Shaikh and Karjaluoto (2015) investigated the prevailing studies on embracing mobile banking to mapping the major theories adopted with a view of establishing how the adoptions resulted in improved performance and profitability. The main driver was on the impact of electronic commerce on the worldwide business setting where they recognized that m-banking literature is disjointed even though it relies on technology acceptance in line with a number of alteration. The researchers established that the main drivers to the business world in technology are lifestyle and devices, attitude, perceived usefulness and convenience in the general world operations. The research further established existence of positive correlation between m-banking adoption and performance of the commercial institutions. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with Shaikh and Karjaluoto's (2015) study findings.

Aamir et al., (2011) established restructuring of the taxation process as essential factor in an economies revenue collection. Direct reforms at federal level was a vital factor in reformations in

Pakistan additionally in India one of the developing countries, tax revolution was to correct disparities. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with Aamir et al.,'s (2011) study findings.

A study by Madegea, Makokha, and Namusonge (2018) found that the usage of computerized data collection had an impact on Trans Nzoia county administration's performance. The research found that computerization resulted in a significant increase in revenue collection. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with Madegea, Makokha and Namusonge's (2018) study findings.

Otieno, Oginda, Obura, Alla, Ojera, and Siringi (2013) investigated the influence of information technology on tax collection by local governments in Homa Bay County, Kenya. The outcomes of the research established a substantial positive correlation between information systems and productivity. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with Otieno, Oginda, Obura, Alla, Ojera and Siringi's (2013) study findings.

Revenue collection systems in Africa and by extension in Kenya are manual and are prone to fraud, forgery and manipulation. It is difficult to trace fraud in these system and a lot of resources are being used in monitoring and controlling it. Implementation of electronic system has ability of enhancing level of revenue collection (Gicho 2018). Mwangi and Kiarie (2016) concur that electronic systems can improve performance and affirms that majority of both private and public institutions around the world are modernizing their operations to improve on efficiency and

effectiveness. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with Gicho (2018) and Mwangi and Kiarie's (2016) assertions.

The Judiciary is going through organizational restructuring and focusing on achievements of its blue prints developed which are strategic changes in terms of strengthening stakeholders' partnerships, projects activities for growth, implementing the use of technology in its courts operations and also in pursuing public private partnerships by adopting use of electronic revenue collection systems such as Judiciary Financial Management Information System (JFMIS) and Case Tracking Systems (CTS), as reported in State Of The Judiciary Annual Report Of 2017/2018. These changes comprises their role of collecting revenue for the National Government through fees from services rendered, fines from criminal penalties, monies forfeited to the state as well as other income directly deposited with Treasury. As a consequence of both internal and external factors, as well as the necessity to strengthen internal systems and operations, the modifications have been brought about. This is aimed at increase revenue collection and reduce the dangers associated with the dealing with hard cash. The study finding that electronic revenue collection systems can significantly predict revenue performance is in agreement with the State Of The Judiciary Annual Report of 2017/2018 findings.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

Conclusions and suggestions for policymakers and practitioners are included in this section. As a result, the study's limitations and recommendations for further research are also discussed.

5.2 Summary of Findings

The purpose of this study was to examine the effect of Kenya's computerized collection system on court income. It also specifically aimed at unravelling the impact of; mobile revenue, direct banking revenue, agency banking revenue, as well as manual collections on the revenue performance in the courts within Kenya. Data analysis and findings interpretation were carried out in line with specified aims, both general and particular.

To achieve the study's objectives, multiple linear regression and correlation analysis were used in conjunction. At the 5% significance level of the correlation employed in the study, mobile revenue, direct banking, agency banking, and manual collections all had a positive association with revenue collection. Analysis of various linear regressions found that a model including mobile revenue, direct banking revenue, agency banking revenue, and manual collections accounted for 61.2 percent of the total revenue performance. Results showed that a combination of mobile revenue, direct banking revenue, agency banking revenue, and manual collection strongly predicted revenue. Mobile revenue, direct banking revenue, agency banking revenue, and manual collection revenue were all shown to have little effect on revenue performance when taken separately.

5.3 Conclusions

This section contains the findings of the investigation. In drafting the results, the study's general and specific objectives are taken into consideration. For the purpose of this research, Kenyan courts' income performance was evaluated using an electronic collecting system. According to the findings of the research, electronic revenue collection systems have a considerable influence on revenue. In addition, the research looked at the influence of; mobile revenue, direct banking revenue, agency banking revenue, and manual collections on revenue performance in Kenyan courts. There is a favorable correlation between mobile revenue, direct banking revenue, and agency banking revenue, but not a meaningful correlation with financial inclusion.

5.4 Recommendations

Financial researchers will benefit from this study's conclusions about the performance of electronic collection systems and income. In the future, this study's results will serve as a guide for scholars interested in electronic collecting systems and revenue performance. Scholars will be intrigued by the findings and be inspired to do their own research on revenue performance as a result of this study. Researchers and academics interested in electronic collection systems and revenue performance may also find this research useful.

Government officials and policymakers in the Treasury, as well as the boards of other government organizations that collect revenue, are urged to use electronic revenue collection systems to improve revenue performance. The findings of this research project will serve as a blueprint for the development of policies and procedures to enhance the collection of government income. The

outcomes of this research will assist the government and other relevant agencies formulate and execute necessary rules and regulations based on empirical evidence.

Since the current research shows that electronic revenue collection systems have a significant impact on revenue performance, it is recommended that the management of various government revenue collection agencies, consultants, and economists estimate and base their projected revenue estimates and targets on digitization. They should particularly be bullish about tax revenue collection when revenue collection has been digitized. In addition, the management of various government organs the collect revenue should gauge digitization of revenue collection levels to determine the level of revenue collection enforcement. Thus, during times of digitization of revenue collection, they should increase the intensity of enforcement because more revenue can be obtained.

5.5 Recommendations for Further Study

To explore the impact of digitization of revenue collection on tax revenue collection is very important for government officials and policy formulators in the Treasury and the the boards of various government organs the collect revenue, management of various government organs the collect revenue, consultants, and economists. A similar experiment might be conducted on other government units, such as national government and devolved units, in order to discover whether the conclusions of the present research can be applied to these other entities. Despite the fact that the present research was only done in Kenya, future studies may be undertaken in other East African, African, or global settings to evaluate if the current results of the studies can be conveyed.

Mobile, direct banking, and agency banking income are the only electronic revenue collecting forms that have been covered in this research. Further studies can be carried out to establish if there are other forms of electronic revenue collection formats. The present research has solely included manual collections as the study's sole control variable that additionally influences revenue performance. A study may also be done to examine whether there are additional factors that alter, interfere or mediate the link between electronic revenue collection and revenues collected.

It is possible to follow up this research with primary data, since this study solely relied on secondary data. The findings of the study might either confirm or refute this. In this study's statistical analysis, multiple linear regressions and correlation analyses were used. For example, future research may use more statistical analysis methods including descriptive statistics, cluster analyses, discriminant analyses, granger causality analyses, and components analyses, amongst others.

5.6 Limitations of the Study

Using relevant literature and theories as a guide to examine the theories and empirical literature findings, it was an official study that used a deductive research approach. The use of theories and existing empirical literature helps provide the framework for understanding the study question being studied. On the contrary, past studies have not examined the impact of electronic tax collection on revenues. In light of time and cost constraints, the study was conducted only in the context of the Judiciary's revenue collection, which does not clearly indicate the current result if

government entities are included. Further ambiguity would arise if similar studies were conducted in other countries.

In spite of using secondary data, there were some important problems, such as the difficulty in obtaining some data, particularly on exchange rate swings, which necessitated a large deal of study effort and expense. It was not possible to use the data in their original form, thus further computations and adjustments were necessary. A delay was expected owing to the researcher's data processing and editing before the final compilation.

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APPENDICES

Appendix I: Data Collection Sheet

Financial Year		Revenue Collected	Ln Revenue Collected	Mobile Revenue	Ln Mobile Revenue	Direct Banking revenue	Ln Direct Banking revenue	Agency Banking revenue	Ln Agency Banking revenue	Manual collections	Ln Manual collections
2016/17	July										
	Aug										
	Sep										
	Oct										
	Nov										
	Dec										
	Jan										
	Feb										
	March										
	Apr										
	May										
	June										
2017/18	July										
	Aug										
	Sep										
	Oct										
	Nov										
	Dec										
	Jan										
	Feb										
	March										
	Apr										

	May										
	June										
2018/19	July										
	Aug										
	Sep										
	Oct										
	Nov										
	Dec										
	Jan										
	Feb										
	March										
	Apr										
	May										
	June										
2019/20	July										
	Aug										
	Sep										
	Oct										
	Nov										
	Dec										
	Jan										
	Feb										
	March										
	Apr										
	May										

Appendix II: Research Data

Financial Year		Revenue Collected	Ln Revenue Collected	Mobile Revenue	Ln Mobile Revenue	Direct Banking revenue	Ln Direct Banking revenue	Agency Banking revenue	Ln Agency Banking revenue	Manual collections	Ln Manual collections
2016/17	July	167,961,254.00	18.93924	20,155,350.48	16.81898	33,592,250.80	17.32981	13,436,900.32	16.41352	100,776,752.40	18.42842
	Aug	155,862,739.83	18.86449	18,703,528.78	16.74422	31,172,547.97	17.25505	14,027,646.58	16.45654	91,959,016.50	18.33685
	Sep	184,710,604.64	19.0343	22,165,272.56	16.91404	38,789,226.97	17.47365	16,623,954.42	16.62636	107,132,150.69	18.48957
	Oct	158,377,379.15	18.88049	20,589,059.29	16.84027	33,259,249.62	17.31984	14,253,964.12	16.47255	90,275,106.12	18.31837
	Nov	183,732,128.00	19.02899	23,885,176.64	16.98877	40,421,068.16	17.51486	16,535,891.52	16.62104	102,889,991.68	18.44917
	Dec	123,670,666.40	18.63313	16,077,186.63	16.59291	28,444,253.27	17.16346	11,130,359.98	16.22519	68,018,866.52	18.0353
	Jan	153,810,468.80	18.85123	19,995,360.94	16.81101	36,914,512.51	17.42412	13,842,942.19	16.44329	83,057,653.15	18.23505
	Feb	159,602,581.50	18.8882	20,748,335.60	16.84798	39,900,645.38	17.5019	14,364,232.34	16.48025	84,589,368.20	18.25332
	March	162,236,937.20	18.90457	21,090,801.84	16.86435	42,181,603.67	17.55749	14,601,324.35	16.49662	84,363,207.34	18.25064
	Apr	161,453,082.20	18.89973	20,988,900.69	16.8595	43,592,332.19	17.59039	14,530,777.40	16.49178	82,341,071.92	18.22638

	May	170,660,492.50	18.95519	22,185,864.03	16.91497	47,784,937.90	17.68222	15,359,444.33	16.54724	85,330,246.25	18.26204
	June	190,380,238.45	19.06453	24,749,431.00	17.02431	55,210,269.15	17.82666	17,134,221.46	16.65659	93,286,316.84	18.35118
2017/18	July	166,566,102.03	18.9309	23,319,254.28	16.96479	48,304,169.59	17.69303	14,990,949.18	16.52296	79,951,728.97	18.19693
	Aug	139,649,007.00	18.75464	20,947,351.05	16.85752	40,498,212.03	17.51677	12,568,410.63	16.3467	65,635,033.29	17.99962
	Sep	174,590,416.55	18.97795	27,934,466.65	17.14537	50,631,220.80	17.74008	15,713,137.49	16.57001	80,311,591.61	18.20142
	Oct	144,782,571.10	18.79074	24,613,037.09	17.01879	41,986,945.62	17.55287	13,030,431.40	16.3828	65,152,157.00	17.99224
	Nov	124,197,421.25	18.63738	22,355,535.83	16.92258	36,017,252.16	17.39951	11,177,767.91	16.22944	54,646,865.35	17.8164
	Dec	157,213,816.29	18.87312	29,870,625.10	17.21239	45,592,006.72	17.63524	14,149,243.47	16.46517	67,601,941.00	18.02915
	Jan	174,736,356.70	18.97879	34,947,271.34	17.36935	50,673,543.44	17.74091	15,726,272.10	16.57084	73,389,269.81	18.11129
	Feb	192,370,635.00	19.07493	40,397,833.35	17.51429	55,787,484.15	17.83706	17,313,357.15	16.66699	78,871,960.35	18.18334
	March	170,511,420.50	18.95431	37,512,512.51	17.44019	49,448,311.95	17.71644	15,346,027.85	16.54637	68,204,568.20	18.03802
	Apr	168,216,460.50	18.94076	38,689,785.92	17.47109	48,782,773.55	17.70289	15,139,481.45	16.53282	65,604,419.60	17.99915

	May	204,553,971.00	19.13634	49,092,953.04	17.70923	59,320,651.59	17.89847	18,409,857.39	16.7284	77,730,508.98	18.16876
	June	254,991,350.30	19.35674	63,747,837.58	17.97045	73,947,491.59	18.11887	22,949,221.53	16.94879	94,346,799.61	18.36249
2018/19	July	212,666,636.65	19.17524	53,166,659.16	17.78894	63,799,991.00	17.97126	19,139,997.30	16.76729	76,559,989.19	18.15359
	Aug	207,461,043.20	19.15045	51,865,260.80	17.76416	64,312,923.39	17.97927	18,671,493.89	16.74251	72,611,365.12	18.10063
	Sep	196,368,574.96	19.0955	49,092,143.74	17.70921	62,837,943.99	17.95607	17,673,171.75	16.68756	66,765,315.49	18.01669
	Oct	216,754,075.00	19.19427	54,188,518.75	17.80798	71,528,844.75	18.08561	19,507,866.75	16.78633	71,528,844.75	18.08561
	Nov	287,055,712.30	19.47519	71,763,928.08	18.08889	97,598,942.18	18.39638	25,835,014.11	17.06724	91,857,827.94	18.33575
	Dec	251,107,650.65	19.34139	62,776,912.66	17.9551	85,376,601.22	18.26258	25,110,765.07	17.03881	77,843,371.70	18.17021
	Jan	196,641,397.10	19.09689	49,160,349.28	17.7106	66,858,075.01	18.01808	21,630,553.68	16.88962	58,992,419.13	17.89292
	Feb	235,195,116.33	19.27593	58,798,779.08	17.88963	79,966,339.55	18.19712	28,223,413.96	17.15566	68,206,583.74	18.03805
	March	263,292,273.28	19.38878	65,823,068.32	18.00248	86,886,450.18	18.28011	31,595,072.79	17.26851	78,987,681.98	18.1848
	Apr	208,085,895.95	19.15346	52,021,473.99	17.76717	66,587,486.70	18.01403	24,970,307.51	17.0332	64,506,627.74	17.98228

	May	225,921,622.00	19.2357	56,480,405.50	17.8494	70,035,702.82	18.06452	27,110,594.64	17.11544	74,554,135.26	18.12704
	June	193,253,806.71	19.07951	46,380,913.61	17.6524	59,908,680.08	17.90833	23,190,456.81	16.95925	59,908,680.08	17.90833
2019/20	July	226,368,944.30	19.23768	54,328,546.63	17.81056	70,174,372.73	18.06649	27,164,273.32	17.11741	72,438,062.18	18.09824
	Aug	199,099,882.66	19.10932	47,783,971.84	17.6822	61,720,963.62	17.93813	23,891,985.92	16.98905	61,720,963.62	17.93813
	Sep	209,106,119.48	19.15835	50,185,468.68	17.73124	64,822,897.04	17.98717	31,365,917.92	17.26123	56,458,652.26	17.84902
	Oct	232,189,624.03	19.26306	55,725,509.77	17.83595	71,978,783.45	18.09188	37,150,339.84	17.43048	60,369,302.25	17.91599
	Nov	216,803,447.55	19.1945	52,032,827.41	17.76739	65,041,034.27	17.99053	34,688,551.61	17.36192	58,536,930.84	17.88517
	Dec	178,190,455.95	18.99836	42,765,709.43	17.57125	51,675,232.23	17.76049	28,510,472.95	17.16578	51,675,232.23	17.76049
	Jan	170,454,033.45	18.95398	39,204,427.69	17.4843	49,431,669.70	17.7161	27,272,645.35	17.12139	54,545,290.70	17.81454
	Feb	357,255,137.70	19.69396	85,741,233.05	18.26684	103,603,989.93	18.45609	60,733,373.41	17.922	110,749,092.69	18.52278
	March	107,278,784.70	18.49094	25,746,908.33	17.06383	31,110,847.56	17.25307	19,310,181.25	16.77614	27,892,484.02	17.14387
	Apr	39,813,387.00	17.49971	11,944,016.10	16.29574	12,342,149.97	16.32853	7,166,409.66	15.78492	8,360,811.27	15.93907

	May	98,753,471.95	18.40814	25,675,902.71	17.06106	29,626,041.59	17.20416	18,763,159.67	16.74741	15,800,555.51	16.57556