



Journal homepage: <http://www.journalijar.com>

.....
*INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH*
.....

ISSN NO. 2320-5407

THE ROLE OF ICT ADOPTION IN ENHANCING PERFORMANCE IN

THE JUDICIARY

A CASE STUDY OF THE MARIAKANI LAW COURTS

A Research Project Submitted In Partial Fulfillment For The Requirements Of The Award

For The Degree of Masters of Business Administration in Strategic Management of Jomo

Kenyatta University of Agriculture and Technology

January 2014

DOUGLAS MUSA MACHAGE

CD333-C005-2707\2012

Human Resources Development

Jomo Kenyatta University Of

Agriculture and Technology



Declaration

I declare that this research proposal is my original work and has not been presented for a degree in any other university.

Signature.....Date.....

Douglas Musa Machage

CD333-C005-2707\2012

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

Signature..... Date.....

Evelyn Datche

JKUAT, KENYA



Dedication

I dedicate this research proposal to my family for their support and bearing with me during this process. I will remain forever grateful.



Acknowledgement

I owe a great intellectual debt to my brilliant lecturers, in particular Evelyn Dache and the other project supervisors for their constant guidance. My gratitude also goes to my friends and fellow students from whom I received encouragement and advice. Finally my heartfelt gratitude to my employer for not only giving me financial support but also allowing me time to do the work.

Table of Contents

Abstract	8
CHAPTER 1: INTRODUCTION	9
1.1 Background	9
1.1.1 Global perspective	10
1.1.2 Mariakani Law Courts.....	13
1.2 Statement of the problem	14
1.3 Objectives	15
1.3.1 General Objective	15
1.3.2 Specific objectives	15
1.4 Research questions	15
1.5 Justification	16
1.6 Scope	16
1.7 Limitation	17
1.7.1 Confidentiality.....	17
1.7.2 Generalization.....	17
CHAPTER 2: LITERATURE REVIEW	19
2.1 Introduction	19
2.2 Theoretical foundation of ICT	19
2.2.1 Definition	19
2.2.2 ICT wider scope	19
2.3 ICT within the court	20
2.3.1 Basic technologies.....	21
2.3.2 Technologies for the administrative component	22
2.3.3 Technologies for supporting judges	28
2.3.4 Role of ICT adoption in the judiciary	31
2.4 Conceptual framework	33
2.5 Critique	34

2.6 Summary	34
2.7. Research gaps	35
CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY	36
3.1 Introduction	36
3.2 Research Design	36
3.3 Population and sample selection	37
3.4 Sampling and Sampling Design	37
3.5 Data Collection	38
3.6 Validity and Reliability.....	38
3.7 Data Analysis and Presentation.....	39
3.8 Ethical Considerations.....	39
CHAPTER FOUR: RESULTS AND ANALYSIS	40
4.0 Introduction	40
4.1. Results of general questions	40
4.2 Results on ICT adoption	42
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	45
5.0 Introduction	45
5.1 Summary	45
5.2 Conclusion.....	46
5.3 Recommendations	47
References	48
APPENDICES.....	51
Appendix 1: Letter of introduction to respondents	51
Appendix 2: Questionnaire	52

List of Abbreviations

CMS	Content Management System
DFID	Department for International Development
EU	European Union
FLSTAP	Financial and Legal Sector Technical Assistance Project
ICT	Information Communication and Technology
JICT	Judicial Information Communication Technology Committee
LAN	Local Area Networks
NAFTA	North American Free Trade Agreement
NCLR	National Council for Law Reporting
OCR	Optical Character Recognition
SCS	Scottish Court Service

Abstract

The work of the judiciary involves a high level of documentation and information processing, storage and retrieval. The information intensiveness of the judiciary's responsibility is such that tools and technologies that would speed up the documentation, management and information handling are not only important but professionally necessary. The value of accuracy, correctness, completeness, relevance and timeliness are characteristics of information which ICT systems do generate to meet the judiciary's information needs. The legal system is essential to not only maintain political stability but also economic stability and the ways we do business and maintain order in the society. The judiciary in any civilized society settles therefore disputes arising from business relating issues and it is expected that that has to be done in real time in order for the parties to move to the next level. This is an arm of the government that plays a key role in ensuring best practices and good governance. This study will involve analysis of ICT resources existing in the Kenyan judiciary, Mariakani law courts in particular. Mariakani Law Courts is a chief magistrate located on Mombasa-Nairobi highway, but specifically near Mombasa city. The study is also important to establish the available ICT resources in the Mariakani Law Courts and their influence on performance. The performance will be analyzed by looking at how employees use the resources available. The study will be carried out using interviews and questionnaires. The results that will be got will be analyzed so that reliable conclusions are drawn by linking the theoretical framework with the empirical study.

CHAPTER 1:

INTRODUCTION

1.1 Background

The benefits of ICT have been verified by many leading companies worldwide, and ICT is a significant tactic in most companies' and sectors (Jakachira, 2009; Hlungulu et al. 2010). In the judiciary the core aim has been reducing delay, improving economy, efficiency and effectiveness and the more general objective of promoting confidence in the justice system through the use of new technologies. This is the reason the use of technologies for the laudable aim has become an important area of research (Ndou, 2004). However, given the nature and importance of the judiciary as the third pillar of the State authority, and compared to other public services, due process, impartiality and independence should also be carefully taken into account. According to Scott (2010) changes in the judiciary is not something that can be done in a single day or by an individual because of the structural and procedural changes, such as the ones driven by the introduction of the new technologies. The use of information and communication technology (ICT) is considered one of the key elements to significantly improve the administration of justice in a country since the benefits are enjoyed directly by the citizens. The rapid development of technology opens up new opportunities that were unthinkable only a few years ago (Tseng et al 2008).

In the judiciary, ICT can be adopted to enhance efficiency, access, timeliness, transparency and accountability, and helping the judiciaries to provide adequate services (Sturges, 2008; Yen, 2005). New possibilities are emerging for the integration and automation of court procedures and practices. In addition, the use of the internet, can offer the chance to open the judiciary to the public, providing both general and specific information on its activities, thereby also increasing

legitimacy. There is a need for some kind of guidance for assessing the new ICT tools and under what circumstances to use them since they are considered to be of extreme interest for the development of better performance in the judiciary now and in coming years (Kordha, Gorica & Ahmetaj, 2011).

However, many empirical studies show that the results achieved do not often coincide with the anticipated ones. High failure rate is a result of the fact that 'the complexity of ICT solutions have grown rapidly and that existing Software Engineering and Information Systems Design methodologies do not tackle this adequately (Reiling 2010; Gomez, 2012; Alter, 2011). More research is needed to better comprehend such phenomena and to improve ICT innovation methodologies in courts. From this perspective, the European continent offers an important opportunity (Anja, 2012; Contini & Lanzara, 2009; Cislighi et al. 2009).

1.1.1 Global perspective

Globally, a number of statutory reforms have been introduced to allow the use and the exchange of electronic data and documents within national judicial systems, but also between them and with supranational courts. The availability of web services, the possibility of consulting online legislation and case law, the use of electronic filing, the electronic exchange of legal documents, are only some examples that are spurring the judicial administrations around the world to rethink their current functions and activities (Velicogna, 2007; Gichoya, 2005; Orna, 2004).

In Scotland, the SCS was created in its present form by the Judiciary and Courts (Scotland) Act 2008 (Contini & Lanzara, 2009; Reiling, 2010). The SCS has the function under the Act to provide or ensure the provision of the property, services, officers and other staff required for the purposes of the Scottish courts and the judiciary of those courts. The purpose of the service is

“To design, develop, operate and maintain the ICT service needed to support the operation of the courts and the judiciary of those courts” which clearly positions the ICT service as a corporate support function. The changes in the governance structure of SCS during 2010 were in response to sizeable shifts in constitutional arrangements and the service clearly needs to provide direct support to the judiciary, and ultimately provide the mechanisms which allow all internal users to deliver their operational service to end consumers (Hlungulu et al. 2010). Therefore, ICT has been adopted in the Scottish judicial system and it has much positive impact on overall performance.

In Europe the diversity of institutional settings within Europe provides contrasting examples of these of technology to support the administration of justice. The variety of solutions adopted, both from a technical and managerial point of view, provides a unique insight into judicial applications of ICT and these solutions should be disseminated and discussed in-depth (Olzak et al. 2009; Gomez, 2012).

In Kenya the Judicial Information Communication Technology Committee (JICT) was established on 15th October, 2008. Its main aim is to oversee all ICT matters in the Judiciary (Reiling, 2010). Its membership is drawn from the Court of Appeal, High Court, Registrar of the High Court, finance office, ICT office, National Council for Law Reporting, e-Government and the Kenya ICT Board. The Judiciary Strategic Plan 2009 – 2012 guides its co-ordination of ICT projects and investments (Gomez, 2012). The JICT Committee has initiated several activities such as the digitisation of court records and the creation of a case management system, development of the ICT policy and strategic plan, establishment of communication infrastructure, acquisition of hardware and software, and tele-presence court sessions. Some of the strategies that were adopted in the first plan have been implemented in some courts, however,

there are no follow up researches that have been carried out to show how they have bettered performance in the judiciary (Alter, 2011; Cunningham, 2006; Cislighi et al. 2009). This means that the role of ICT has not been well understood by members of the judiciary and it accounts for the reason it has not been well adopted.

The digitisation of hardcopy records was the first step taken towards automating the Judiciary's processes. An ICT consultant was commissioned to carry out a needs assessment with a view to determining the nature and volume of the court records to be digitised, developing a digitisation strategy, and preparing an implementation plan. With the assistance of the ICT Board and the Judiciary, the consultant organised the court records for the last ten years and a total of 325,000 files were prepared for digitization (Reiling, 2010). By October 2010, Digital Scape Company Ltd and DPH India (the firms awarded the contract to digitise the records) had scanned five million pages of the 30 million targeted pages of court records. The current status of this project is unknown.

Deloitte Consulting Ltd was contracted through the assistance of DFID, the World Bank and the Ministry of Finance (FLSTAP) to assist the Judiciary in developing an ICT Policy and Strategic Plan (Alter, 2011). The Judiciary ICT Strategic Plan identified ICT initiatives necessary for the automation of the judiciary's processes and provided a road map for implementation. Both the Policy and the Plan were officially launched in October 2010.

Plans are under way to improve communication and sharing information and resources through the use of ICT. Contracts have been awarded to establish Local Area Networks (LAN) in High Court stations. At the time of the visit, a tender had been issued for the supply of ICT equipment out of which 350 UPS, 200 printers and 100 desktop computers had been purchased at the time of this study.

1.1.2 Mariakani Law Courts

Mariakani Law Courts is a chief magistrate's court located in Mombasa County. The court has benefited from the judiciary's plans to implement ICT. This is because of its rank and specialized nature of its work and location being the entry court point for the goods being transported from the port of Mombasa headed not only into the country but to the entire horn of Africa. Hence it is importance to not only the judiciary but the other arms of government. In the first plan the government wanted to have tele-systems in all chief magistrate courts (Markovic, 2014). This was implemented in Mariakani Law Courts. Mariakani law court has a work force of 50 employees. They are magistrates, research assistants, executive officers, court clerks, accountants, interpreters, cleaners, and guards. All of whom are employees of the judicial service commission and interact not only among themselves by the use the available ICT services but also with their counterparts elsewhere through the use of new technologies.

The first tele-presence link has been established between the Court of Appeal in Nairobi and its sub-registry in Mombasa, with the assistance of the ICT Board. Video cameras and screens have also been installed in refurbished and soundproofed rooms in the Mombasa and Nairobi Law Courts (Odima, 2014). This facility enables parties in Mombasa to have their cases heard by a Court of Appeal Judge or Judges in Nairobi through tele-presence. This is expected to reduce the cost of litigation and facilitate speedy access to justice as parties in Mombasa will not need to travel to Nairobi when the Court of Appeal is in session there.

The first cases were relayed in October, 2010 from Mombasa during the official launch of the ICT Policy and Strategic Plan (Owuor, 2014). The Court of Appeal heard three cases via video conference where the bench sat in Nairobi while the respective lawyers were in Mombasa. It is envisaged that if the pilot tele-justice system in the Court of Appeal is successful, the system

may be employed in criminal cases (Shrivastava&Bhattacharjee, 2014; Odima, 2014). The tele-system may then be installed in the Prisons and the Chief Magistrates Courts, so that, where appropriate, cases may be dealt with without remanded accused persons being brought to the court. The implementation of this system in the criminal courts is subject to the appropriate legal infrastructure being put in place. Draft guidelines for the use of this system have been drawn up and presented to the Rules Committee for scrutiny (Siegle, 2014; Owuor, 2014). In the meantime, the draft guidelines are being adopted for use in the pilot in Civil Cases, with the consent of the parties involved in the applicable cases.

A challenge in Mariakani Law Courts is that follow ups are not made on the technologies that are implemented (Siegle, 2014). The need of the ICT in the court has not been well understood. This is the reason why most of the technologies become in active after some time.

1.2 Statement of the problem

The judiciary is an arm of the government that is very crucial in ensuring best practices and good governance. Since the arm was formed, there are different reforms that have been taking place. Recently we had a new constitution that clearly spelled out the roles of the judiciary. This is intended to ensure accountability, efficiency, effectiveness and transparency in the judiciary (Shrivastava&Bhattacharjee, 2014). However, there are still challenges that are visible in the judiciary such as speedy hearing and conclusion of cases, slow research methods and missing of files to name but a few. Judicial reforms are mandatory in any nation regardless of whether it is developed or developing (Yen, 2005; Saunders, Lewis &Thornhill, 2007).

The judicial transformation project takes cognizance of the fact that the journey towards judicial reforms and judicial modernization is not only necessary but of extreme impotence. ICT thus was considered as the key tool towards achieving this entire important milestone. ICT is thus no

longer a luxury good in all sectors particularly in the judiciary, but an essential utility for all governments departments (Odima, 2014; Owuor, 2014). As a result, it's a vital role in advancing economic development and reducing poverty has been expanded and increasingly recognized (Alter, 2011; Contini&Lanzara, 2009). This will begin by implementing it in the judicial services that seek to resolve dispute relating issues and enforcement of the rights of citizens. Generally, what is embarked on is ICT as a strategic tool to improve performance of the judiciary. Despite, the many studies that have been carried out, the judicial sector has been largely neglected; therefore this study is intended to bridge the knowledge gap and seeks to determine the role of ICT in improving performance in the judiciary using the case of Mariakani Law Courts. This leads to the question; what is the role of adopting ICT in the Kenyan judiciary?

1.3 Objectives

1.3.1 General Objective

To investigate ICT usage as a predictor of better performance in the Kenyan judiciary

1.3.2 Specific objectives

- i. To establish the available ICT resources and influence on performance
- ii. To analyze ICT uses inMariakani Law Courts by the employees
- iii. To find out the gaps in ICT adoption in the Kenyan judiciary using the case of Mariakani Law Courts

1.4 Research questions

Arising from the specific objectives, the study will seek to answer the following questions;

- i. What is the progress of Mariakani Law courts in adopting ICT as a strategy for improving performance?

- ii. What is the role of ICT adoption in the Kenyan judiciary using the example of Mariakani Law Courts?
- iii. Can ICT adoption improve the overall performance of the Kenyan Judiciary?

1.5 Justification

The globalization of the economy, social trends and other factors present new demands on judiciaries internationally, while at the same time technological and communicational advances offer opportunities to judicial policy makers to make justice more accessible, transparent and effective (Francesconi, Sartor & Tiscornia, 2008). In Kenya like it is with other developing economies the use of information technology is not very new. However, the experience in introducing technology in justice sector institutions there has been mixed. Some have had successful applications that have helped promote the rule of law (Siegle, 2014). Others, however, have invested heavily with little improvement in the performance and accessibility of judicial sector institutions. These uneven returns result from several factors and considerations (Alter, 2011; Contini & Lanzara, 2009). This research paves way for adoption of ICT in the judiciary. It is crucial since the outcomes of the same will be felt widely in the economy. This is because issues of the economy that will be brought to the courts will be handled quickly and with efficiency. Therefore, it will benefit not only scholars, the Kenya government, but the judiciary also.

1.6 Scope

The Kenyan judiciary is wholly reforming like it is with other many developing nations. This means that there is a need of much empirical research to provide guidelines on the changes to be implemented. It is hoped that this research will contribute to the body of knowledge on ICT adoption by the courts (Habermas, 2003). It will give in detail the reason why ICT should be

adopted in the Kenyan judiciary as one of the strategies for better performance. This will be after linking the empirical data with the theoretical framework established.

Through the study, researchers are in a position to understand various areas of research and how they relate to each other. ICT is very crucial in the court system (Francesconi, Sartor & Tiscornia, 2008). This will be done in Mariakani Law courts in Mombasa County. It is one of the law courts where ICT resources have been allocated. Therefore, the study helps in providing a basis for understating, explaining and predicting which all become crucial in innovations. The model is also crucial for future research since it helps to identify areas where information on the topic under study is missing.

Apart from becoming crucial for future research, the current study will give recommendations for better adoption of ICT in the judiciary (Shrivastava & Bhattacharjee, 2014). This will probably, gear up the process of ICT adoption in the judiciary.

1.7 Limitation

1.7.1 Confidentiality

Naturally, humans tend to keep some part of information to themselves due to high level of suspicion and loss of trust especially when the study tends to dwell so much on personal information. In this research, despite being cooperative, a number of respondents lacked the confidentiality, a reason why some of the questionnaires were not returned. This is also probably caused by the nature of the Kenyan judicial system where high responsibility and integrity has to be upheld. Confidentiality will be enhanced by use of pseudonyms.

1.7.2 Generalization

The Kenyan court system is very broad considering that we have different types of courts that are located across the country. Therefore, when taking an example of only one court of law and

generalizing the information that it will apply to the other courts it becomes a limitation. In addition, ICT adoption in that court may not sound good like it is with other courts more so those below and above its rank. Wide data will be collected so that generalizations are minimized.

CHAPTER 2:

LITERATURE REVIEW

2.1 Introduction

In this chapter, the researcher discusses the findings of previous studies on the role of ICT adoption in the judiciary. The chapter begins by introducing an overview of ICT as a general concept that can apply in different fields. The chapter then highlights the role of adopting ICT in the judicial systems as a way of enhancing performance.

2.2 Theoretical foundation of ICT

2.2.1 Definition

ICT stands for "Information and Communication Technologies." ICT refers to technologies that provide access to information through [telecommunications](#) (Alter, 2011; Contini&Lanzara, 2009). It is similar to [Information Technology](#) (IT), but focuses primarily on communication technologies. This includes the [Internet](#), wireless networks, cell phones, and other communication mediums.

2.2.2 ICT wider scope

Information Communication Technology is an umbrella term that includes all technologies for the manipulation and communication of information (Cunningham, 2009). ICT is today considered a very powerful enabler of development goals because of its unique characteristics that dramatically improve communication and the exchange of information to strengthen and create new economic and social networks. ICT is applicable to the full range of human activity from personal use to business and government (Anja, 2012; Fabri&Contini, 2001). It is

multifunctionality and flexibility creates room for tailored solutions that are based on personalization and localization in the endeavor to meet diverse needs.

Modern information and communication technologies have created a "global village," in which people can communicate with others across the world as if they were living next door (Alter, 2011; Contini&Lanzara, 2009). For this reason, ICT is often studied in the context of how modern communication technologies affect society.

2.3 ICT within the court

Justice is the product of the combined effort of a plurality of actors. Some of these actors, such as administrative personnel and judges, operate within the court organisation, while others, such as lawyers, litigants, the police, probation services, community service order department and witnesses, but also the community and public institutions, constitute the environment within which the court traditionally operates. The technologies which are discussed in this section are the ones adopted within the court. Such technologies can be divided in three groups based on their technological, but also organisational, complexity (Cislaghi et al. 2009). The first group consists of basic technologies such as desktop computers, word processing, spreadsheets and both internal and external e-mail for both judges and administrative personnel. The second group consists of applications used to support the administrative personnel of the court, which include automated registers and case management systems (Hlungulu et al. 2010). Finally, the third group consists of technologies used to support the activities of the judges, such as law and case law electronic libraries, and sentencing support systems.

2.3.1 Basic technologies

Basic technologies are standard products that can be easily acquired on the market. They mainly consists of hardware and software used to create, collect, store, manipulate, and relay digital information needed for accomplishing basic office tasks. Diffusion of such technologies started during the 1980s, but it is only during the 1990s that many European governments started to supply equipment and office applications to the courts in large quantities and in a more systematic way (Jakachira, 2009). In Belgium, for example, ‘during the early eighties, PC’s with word processing software were made available to members of the administrative court registry upon personal request to respond to urgent demands.’ At the beginning of the 1990s though, the government started to ‘invest more substantially in ICT for the courts and the tribunals’ starting the so-called ‘mammoth project’, to cover the entire Belgian court structure. Furthermore, within the framework of an ICT promotional project in 1997, all judges were provided with a laptop computer from the Ministry of Justice (Scott, 2010). This is the typical trend for the diffusion of basic technologies in the courts all over Europe. Unfortunately, the dissemination of such technologies, when not followed by other actions, such as training and redesign of working practices, has often resulted in a very limited impact on efficiency. Hardware has sometimes become obsolete while still in its packaging. On the other hand, the provision, but most importantly, the active use of basic technologies, is a necessary condition to enable the use of other technologies. This is true in two ways. Firstly, the use of basic technologies allows the people working within the courts to discover what ICT is and to start experimenting with it. This is particularly important as courts have often been characterized by a very low level of technological competence (Gichoya, 2005). The mere fact that courts are starting to use computers for drafting and printing simple documents, using e-mail for informal communication and surfing the internet, helps with the sharing of a basic computer knowledge

much needed for the adoption of further systems. Secondly, such technologies constitute the 'installed base' on which other technological innovations may be implemented. For example, without a computer and an internet connection, a judge cannot access on-line legal information services.

2.3.2 Technologies for the administrative component

The role of the administrative component of the court is to perform a number of tasks that range from case-tracking and keeping official records of all court matters to official court notifications. Furthermore, court personnel carry out an important role as an interface, and at the same time a buffer between the judge and the other actors that participate in the judicial process. As lawyers very well know, the judicial proceeding starts long before a case reaches the courtroom (Tseng et al. 2008). The administrative personnel of the courts file and keep registers and documents in compliance with codes of procedure, laws and regulations. For example, a civil action is commenced when a plaintiff (or a plaintiff's attorney) files a summons or a complaint with the clerk of court in any manner prescribed by law. A series of actions are linked to such procedures, such as the collection and formal control of the filed documents by the clerk, the documentation at the time of collection, the registration on a court register of the event and the issuance of a receipt. All these actions require time and resources. In supporting the clerks' activities, technology can play an important role in saving much needed resources at the earliest stage of the trial. Traditional court docket books and other court registers are one of the pillars of the court activities (Velicogna, 2007). They are generally huge books that need to be kept not only to formally comply with procedural rules, but also for the functions that such tools perform. The case history recorded in the registers, for example, provides a quick reference on the status of the case and the documents that have been received by the court. It is double-checked against the case file to determine its completeness. It is a guarantee that the formal

procedure has been followed, *e.g.* for computing any period of time prescribed or allowed by regulation. Furthermore, it allows a quick review of the status of a case without having to physically access and read the case file. On the other hand, paper docket and other register books are cumbersome tools and present many limitations. ‘The docket is placed in the clerk’s offices ... and just one office worker at a time can work with it’. For these reasons, one of the first applications that have been developed in the courts is the automated register. Automated registers have ‘revolutionized’ this part of the court office activities (Argyroudis, 2006). Some activities are now totally automated. In many cases there is a reduced need for manual data entry as the systems automatically populate some of the database records (*e.g.* automatically recording the date of the registration or automatically assigning a case to a judge). Data retrieval functionalities have also been improved. Lawyers can easily observe the difference when asking for information on case status from a clerk (Siegle, 2014). If automated registers are well kept, the clerk can now provide the information with a few taps of the keyboard. He or she does not need to go searching through the pages of the court docket books.

A well-kept automated register databases contains ‘virtually all the important information every action, cause or matter filed in the court, including parties’ particulars, the nature and quantum of the claim, the document filed and the outcome of hearings and more. Having all this data in electronic format opens up a number of options to further enhance the efficiency of the court. Office automation functionalities have been developed to allow the user to automatically fill standard documents, such as court notification tickets, extracting data directly from the database, such as the date of the event that is notified, name and addresses of lawyers and parties (Gomez, 2012). This reduces not only the workload of personnel but also the risk of mistakes. In most cases, after being generated, such documents are printed, signed and sent by mail or by other means of transmission. In Finland, where no signature is required, the documents are sent

electronically to the post office in the area where the addressee lives, which prints it and delivers it physically.

In some cases, applications have been developed to speed up the data entry in the databases.

An example of this are the applications based on optical character recognition (OCR) of standardized paper based forms that have to be printed by the parties before being submitted to the court (Scott, 2010). In the case of the court of first instance in Milan, Italy, software to create a barcode has been developed in 2006 and provided freely to the lawyers. When a lawyer wants to file a claim, she can use the software to print a claim form. The claim form document comprises the usual data in a readable format but also stores the same information in a 2D barcode (Cislaghi et al. 2009). The court staff uses an optic scanner to read the barcode and upload the data in the case management system database. This tool helps improving the speed and accuracy of computer data entry. Incentives to use such software have been provided, but an evaluation of the functioning of the system is not available yet.

In courts across Europe, a number of other applications have been developed that use automated register data. Some of these applications have a more strategic focus. For example, the provision of management information and statistical reporting can play an important role in the organisation and administration of court offices (Markovic, 2014). For this purpose court management systems, or at least statistic packages, that use the data of the automated registers and of the case management systems, have been developed in most of the countries considered. Furthermore, the operation of courts generates a significant volume of financial transactions including fines, bail, fees, etc. Courts acquire goods and services and in some cases also hire personnel; in several countries software applications have been developed or are under development to help process and account for such transactions. In other cases, applications have been developed to

solve more limited problems. In several courts, various systems have been developed to keep track of the physical location of the case folder (Reiling, 2010). In some cases, Excel spreadsheets have replaced informal registers used by the clerks to record the passage of the documents. In other cases more sophisticated approaches have been used. Several court offices have introduced procedures in order to scan both the documents filed to the court and the sentences. This allows the creation of an electronic docket in the first case and archives of digital sentences in the second. A limit to this technique is the limited reusability of the data contained in the documents. Although frequent photocopying is required or when a scanned document can be stored in place of a paper one. Some applications have been developed only in countries that have specific institutional settings (Jakachira, 2009). Traditionally, in countries that use juries, the selection and management of jurors has been a time consuming manual process in the hands of the court clerk. Applications to automate such activities have been implemented.

Today automated registers and related applications are often taken for granted and well integrated in the court practices but in many cases their introduction has been all but easy and plain. The development of these applications was often carried out locally, in many cases to meet specific and urgent business needs within specific offices, or within ad interim pilot projects (Tseng et al. 2008). 'As an agent of automation similar to the machines introduced by manufacturing firms during the industrial revolution', the purpose of this technology is to improve 'efficiency through the automation of human activities within work processes.'

Developed to substitute paper based registers, automated registers were often introduced in offices where people had worked all their life with paper, pens and stamps and where the 'modern technologies' were photocopy and faxes machines (Gomez, 2012). In many cases and for a long time after their introduction, automated registers did not substitute the paper based

ones as official documents, thus requiring clerks and administrative personnel to deal with parallel procedures and the duplication of work. Even in 1999 in Belgium, after several years of efforts, as Dumortier and Goemans note, 'the introduction of electronic internal documents has not suppressed the paper-based system yet: documents are currently processed electronically and on paper, even in case where there would be no legal obstacles to suppress the paper based version.'

An evolution of the automated registers is the case management system (CMS). Such applications are not limited to providing an electronic copy of the paper-based register, but introduce functionalities to help the management of the cases. It is clearly an important task since

'Time is the court most critical resource', and CMS helps manage time (Jakachira, 2009). 'Effective case flow management makes justice possible both in individual cases and across judicial systems and courts, both trial and appellate. It helps ensure that every litigant receives procedural due process and equal protection.' Case management involves the monitoring and managing of cases in the court docket from the time the action is filed to the moment it is finally disposed of by way of trial, settlement or otherwise. It ensures that all cases progress swiftly without unnecessary delay'.

The introduction of case management systems has often coincided with the attempt to standardise ICT applications already in place and to integrate existing databases. A top-down approach has often been used for the development and diffusion of the newer and more advanced applications. In many cases, strong resistance to the use of these applications has come from the courts (Hlungulu et al. 2010). Courts that already used their own systems had them customised to their needs and had developed skills and practices that the introduction of a standardised tool would disrupt.

Furthermore, while local initiatives had been grown locally and nurtured by enthusiasts, the new applications were often introduced as off-of-the-shelf, un-customisable, plug-and-play systems, with the result of decreasing user motivation and participation.

Some of the functions performed by the CMS are strictly related to the management of the single case. These functions include the support and automation of the back-office and the administrative work of court staff, case tracking, case planning, document management, Scheduling of hearings and support of judicial activities (Velicogna, 2009). For example, after the receipt of a pleading the event needs to be registered, the case needs to be allocated to a judge, notices need to be sent, a hearing must to be set, as well as time allocated for the judge to review the pleading before the hearing. If a response is not received from the opposing party, a reminder may be sent by the clerk. In the paper based system, the flow of cases is carried around in the heads of court personnel, or is ingrained in procedures and material artefacts such as to-do lists (Tseng et al. 2008). The CMS embeds such knowledge and automatically performs most of these tasks, providing support to others and thus helping to improve the service.

Other functions are more related to the case flow and court management. CMS may help to monitor the output and performance of the courts, helping the planning and organisation of court activities and the allocation of resources. The more sophisticated CMS packages summarise the court workflow on a daily, weekly and monthly basis. They are able to display the aggregate information on the court activities in different graphical views (Reiling, 2010). A monthly calendar can show the number of actions and the time allocated in the courtroom for each day. Alternatively, bar charts can be produced to show each day of the week and the number of matters, by type, scheduled for the court and help plan court activities. Tracking of case typologies considering time to disposition can be used to highlight critical situations and later the

allocation of personnel, judges and other resources accordingly (Scott, 2010). The analysis of court workload trends may also be used to foresee future trends and needs hence improve planning and monitor more strategic actions.

Finally, CMS can help court staff process many cases which are not disposed of judicially. A number of systems have been designed to provide support to ancillary, but time-consuming functions that in different countries are assigned to the courts (Tseng et al. 2008). In many cases, stand-alone low-cost applications have been developed and implemented to speed up such.

2.3.3 Technologies for supporting judges

Several applications have been designed to support and to automate judges' activities. While many of the tools described in the previous section are 'organisational tools', most of the technology for supporting the judges' activities are 'individual tools'. This is for a number of reasons; including the independence and nature of the task judges perform (Scott, 2010). Moves to introduce new technologies may radically affect the very nature not only of the organisation of the justice administration, but, in some cases, also affect the exercise of the jurisdiction itself. For these reasons, the adoption of a new tool often depends on the choice of a single judge to do so. While this is adequate with individual tools, it often generates problems with technologies that require organisational adoption. Furthermore, due to their functional independence, judges often develop very individual working practices (Hlungulu et al. 2010). The plurality of working practices dramatically increases the complexity of the task of providing organisational tools that take them all into account. In general, organisational tools tend to require standardisation. This, in turn, may lead to a higher resistance to the use of such technologies.

ICT supports the work of the judges in several areas, including the organisation of the activity, the information management and retrieval, document production and the decision-making. One of

the aspects of the judge's activity that has been probably most affected by the use of ICTs that of legal research. Various technological support tools ranging from CDs to local intranets, to the internet provide access to constitutional material, laws, appellate decisions, rules, statutes, local ordinances and much more (Scott, 2010; Owuor, 2014). Conducting on-line legal research and surfing the growing number of websites has become more and more a part of a judge's daily activity. The use of search engines and text mining techniques has highly increased both quality and efficiency of legal research.

Another important innovation is the use of e-mail and forums or areas to share electronic documents. Although e-mail technology has been diffused between the judges all around Europe, in most cases it is used as an informal means of communication (Odima, 2014). This is mainly due to the fact that, in many countries, the law requires both certified e-mail and digital signature for official communications. In most of the cases, such technologies are not provided, while several countries have run pilot projects experimenting with such technologies. Forums and discussion groups in which judges can 'virtually' meet and discuss legislation, procedures and cases, have been an important development. In some cases, with the reduction of opportunities for judges to work in panels (Jakachira, 2009). The opportunity for judges to share information and receive support.

Some effort has been made to produce applications to support the judges in drafting judgments and rulings. In many cases, standard decision models are pre-programmed in the computerized system. Data used in the course of litigation and stored in the automated registers or in CMS (such as the name of parties, of attorneys, facts, procedure) can be retrieved automatically. In Finland, the CMS (Tuomas) allows judges to access the data contained in the electronic documents the courts receive to produce decisions (Gomez, 2012). The Tuomas database and the

document editors are integrated. Such experiences have not, however, always been so successful. In Italy, an application has been created to support the writing of sentences and court orders, their classification and their retrieval (Polis). Despite the great effort made by the IT Department of the Ministry of Justice, only a few judges used the tool, favouring the use of common word processors or the handwriting of the sentences.

Another direction that ICT investments have taken is the development of sentencing support and automated judgment systems. These systems should help improving the quality and timeliness of judgments, and leading judges to impose sentences which are more consistent over time. One of the most successful examples is the Sentencing Information System for the High Court of Justiciary of Scotland (Odima, 2014). The system 'uses computer technology to allow sentences quick, easy access to relevant information about past sentencing of the court in 'similar' cases, without placing any formal restrictions on the exercise of judicial discretion'. In general, however, the development of such systems seems to pose serious problems. This is probably related to the nature and complexity of the tasks compared to the present state of technologies.

'The experience of the various judicial systems (and even within a given single system) shows that judicial decision-making includes an almost infinite range of variations in the craft of sentencing itself.' The complexity, variability, flexibility and discretion that are typical of judicial decisions⁵¹ are not easily tackled by computer automated systems (Owuor, 2014). Only in the most simple cases computer automated decisions are possible⁵² and even then, human contribution and supervision are still required.

2.3.4 Role of ICT adoption in the judiciary

2.3.4.1 ICT for overall justice sector governance

Judicial institutions are managed in indifferent organizational settings. Courts in Kenya, for example, are administratively managed by the Supreme Court like it is in many countries. However, the basic functions of planning; budgeting; payroll; audit; inventory management; facilities and real estate management; human resource management and administration; public information and publication are areas that need to be supported through ICT (Habermas, 2003). There are several programs and applications in this area which provide examples in the private and public sector institutions that can be easily adapted for use in the justice sector business services. Their underlying purposes are to improve resource utilization, planning and functional effectiveness, and employee and public access to information. Similar systems can be installed in line ministries or agencies of the executive branch that are responsible for the enforcement of court decisions and perform other tasks (e.g. prosecution services, public defenders, police, legal aid agencies, law ministries etc.) which require the attention of policy makers in the allocation of resources and the development of appropriate improvement strategies that have or rely on the use of information and communication technologies (Fabri & Contini, 2001; Cunningham, 2009). Some examples of these systems include: The main function of the courts is to provide fair and effective dispute resolution machinery for the enforcement of court decisions. These areas of legal operations of the courts have several potential applications as well. Case filing and management, case distribution, record keeping, archiving, court management, statistics systems, court fee system, video links, bail bond hearing, the recording of witness testimony, equipment for the presentation of evidence, systems for jury selection, and

courtreporting are some examples. This area has received a lot of attention in the last few years inKenya where several court ranks have invested in thedevelopment of case-managementsystems for criminal, civil, electoral and other courts along with their operation manuals andtraining (Anja, 2012; Francesconi, Sartor &Tiscornia, 2008). The investments have been at the higher court levels as well as the lower courts.Many of these systems are being developed to support reorganized and or reengineered courtorganizational structures.

2.3.4.2 To assist judges in their work

Judges are the most importantresource in a court system. Many systems have been developed around the world to helpimprove their judicial/adjudication work. Databases of court decisions and legislation (bothlocal and foreign) are the most common and the fastest growing in view of globalization, EUintegration, NAFTA, anti-corruption efforts, drug and law enforcement, human rightsconcerns and other international needs (Alter, 2011; Contini&Lanzara, 2009). The other growing area is that of electronic “WorkBench” and legal information systems, electronic data interchange and other systems thathelp judges and other legal professionals improve their core legal work (e.g. decisionwriting). Internal communication systems for email contact and coordination are also widelyused in modern judiciaries (Fabri&Contini, 2001). “Knowledge sharing” and distance learning through internet andvideo conferencing are gaining importance and applications. Internet based or PC basedcontinuing education courses for judges and other staffs are also being used (Cunningham, 2009; Saunders, Lewis &Thornhill, 2007; Gigler&Bailur, 2014). Some establishedjudicial schools are converting existing courses in judicial and court administration areas into virtual information which can be accessed miles away. ICT will make the work of judges easier and eventually they will bring efficiency and increase speed in the court system.

2.3.4.3 For better public reach

Increased public awareness and participation are hallmarks of democratic societies, and ingredients for the successful rule of law. Systems that facilitate public access to court information in the form of kiosks, internet web-sites and other tools help improve the justice system (Alter, 2011; Contini & Lanzara, 2009). Legislation and court decision databases for public information and research do so as well. There are many countries using such tools to enhance the transparency of the system and instill user confidence (Anja, 2012). Also, internet based public information notices about court matters and civic responsibilities are increasingly being promoted in view of the information explosion. Certain court operations systems are being offered access through the internet for improving access to justice.

2.3.4.4 To save money and time

A study of Singapore's subordinate courts showed that the use of ICT helps in saving time and money. Although this may not be directly observed, at the end much time and money is saved with ICT in place (Boomer et al. 2010; Hlungulu et al. 2010). Also, the filing of small claims through web based systems helps save money and time, as is the case in the High Courts.

2.4 Conceptual framework

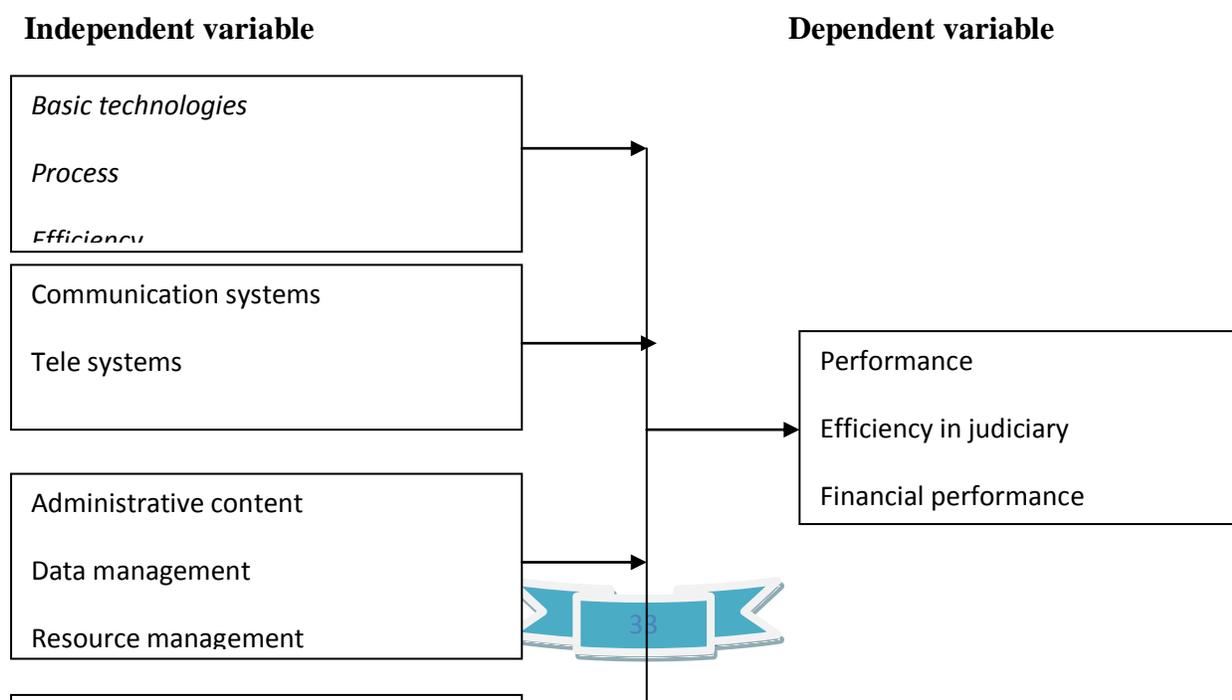


Figure 1: Conceptual framework**2.5 Critique**

There are varied ICT systems that can be adopted to enhance the overall performance of the Kenyan judiciary. Some of the benefits of adopting ICT include savings in purchasing transaction cost resulted from less paperwork, less mistakes and more efficient purchasing process, increasing accuracy and transparency, enhancing performance of judges, and curing down on transport costs (Hlungulu et al. 2010).

Much of the ICT literatures to date have focused on ICT implementation in the private sector. Siegle (2014) explores the challenges to ICT in private sector and identify system integration, standardization and immaturity of ICT market services as key challenges in e-procurement implementation. Odima (2014) presents three cases of ICT implementation in private sector and found that the failures of implementing ICT were due to the difficulties in dealing with process improvement, adoption or integration and change management issues. In addition to that, most studies provide broad analysis of benefits or the role that ICT can play in an organization. Other studies focus on barriers in ICT implementation such as technology immaturity, problem in implementing change, potential conflicts with suppliers, inability of small and medium sized enterprises to materialize savings and cost of implementation (Owuor, 2014; Siegle, 2014)). This study seeks to take different approaches and determine the role of ICT in improving the performance of the Kenyan judiciary.

2.6 Summary

In summary ICT plays a significant role performance of the judiciary. The potentials role of ICT has already been proven in a number of studies. As per these studies, ICT has enabled many

companies to decentralize many processes and centralize strategic processes as a result of the higher transparency provided by ICT systems (Scott, 2010; Tseng et al. 2008).

2.7. Research gaps

In conclusion, the following observations were made from the literature. Much of the empirical studies carried out have been done in the developed countries and have been conducted on the implementation of ICT, this study seeks to fill the existing research gap by conducting a study to determine the role of ICT systems on performance of the Kenyan judiciary using the case of Mariakani Law Courts (Gichoya, 2005).

CHAPTER 3:

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the methods and instruments that were used to conduct the study. It presents research design, study population, sampling techniques, sources of data, data collection methods and instruments, presentation and interpretation of findings and the limitations faced during the study.

3.2 Research Design

According to Guillaume (1995), research design is a management business research that is undertaking a critical assessment of the same. This study used the descriptive survey design. The design enabled the researcher to summarize the findings in a way that will be appropriate for carrying out a holistic, in depth and comprehensive investigation on the role of adopting ICT in the judiciary. We can thus conclude that, descriptive research intends to produce statistical information about aspects thus making it the most suitable method for the study topic for it would allow for not only informed findings but unbiased research findings. Interviews and questionnaires were used to collect data from the 50 participants who will be involved in the study. The interviews were carried out during the collection of the questionnaires. The number of participants was 50 so that wide data can be got and hence increasing credibility and reliability.

3.3 Population and sample selection

Population refers to an entire group of persons or elements that have at least one thing in common. Guillaume (1995), defined target population, as the set of individuals, cases or objects with some observable characteristics, to which a researcher wants to generalize the results of the research. The population was 50 members of staff in Mariakani Law Courts. Judicial officers and staff in the court were chosen as the target population since they interact with majority of the technologies and are aware of all the ICT needs in the court system. The contact Centre has the majority employees inclusive of top judicial officers, middle level management and junior staff.

3.4 Sampling and Sampling Design

This is the process of drawing a study sample from the study population. The main purpose is to obtain a representative group to enable the researcher get information about a study population.

According to Saunders, Lewis & Thornhill (2007), the population is divided into several sub-populations, which are then subdivided into other sub-populations until observation units are selected.

Orna (2004) cites that it represents the larger population and is used to draw inferences about that population. According to Orna (2004), the technique used should ensure that it is the representative of a population and not biased in any way. However, the larger the sample, the smaller the sampling error and thus Orna (2004) recommends that a minimum sample of 20% of the total number of subjects is adequate for educational research of less than a thousand participants. In this case, there were 50 members who were selected for the study. Stratified random sampling was used so that the participants would not be from the same level.

3.5 Data Collection

There are two types of data: primary and secondary data. The commonly used methods of primary data collection are interviews, questionnaires and observation. The primary data collection method is the most suitable for this study and entails the use of questionnaires and interviews. This is due to its advantage of allowing the researcher to get firsthand information from the correspondents. In this case, however, the researcher used questionnaire and interviews. Questionnaires were administered on the staff at Mariakani Law Courts. The questionnaires had both open ended and closed ended questions. Close-ended questions deal with numerical values while open-ended questions allow for explanation and expression of feelings.

3.6 Validity and Reliability

The research carried out a pilot study to pretest and validates the questionnaire and the interview guide. The pilot group can range from 25 to 100 subjects depending on the method to be tested but it does not need to be statistically selected. This was in line with a qualitative research design methodology employed in this research. Validity is the degree by which the sample of test items represents the content the test is designed to measure. Content validity which is employed by this research is a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept.

To establish the validity of the research instruments the research seek opinions of experts in the field of study especially the lecturers in the School of Human Resource Development. This facilitates the necessary revision and modification of the research instrument thereby enhancing validity and reliability. Reliability refers to the consistency of measurement and is frequently assessed using the test–retest reliability method. Reliability is increased by including many

similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures.

The research intends selected a pilot group of 10 individuals from the target population to test the reliability of the research instrument. This was achieved by first stratifying the individuals according to their level of management. The research also put in consideration gender equity and geographical background of individuals. The pilot data was not be included in the actual study. The pilot study allowed for pre-testing of the research instrument. The clarity of the instrument to the respondents will be established so as to enhance the instrument's validity and reliability. The pilot study enabled the researcher familiarize with the study area and its administration procedure as well as identifying items that require modification. The result helped the research to correct inconsistencies arose from the instruments to that they capture what is intended.

3.7 Data Analysis and Presentation

The Statistical Package for Social Sciences (SPSS) was used to conduct correlation analysis to establish the role of adopting ICT in the judiciary as a way of enhancing performance. After the distribution of the questionnaires, they were adequately checked for clarifications and to ensure that all the questions had been answered. The data was then analyzed using both qualitative and quantitative techniques and the findings recorded by use of tables and figures.

3.8 Ethical Considerations

The respondents were assured of data confidentiality and they were given a lee way to participate voluntarily in the provision of information. The respondents were free to withdraw if the nature of questions is contrary to their value systems.

CHAPTER FOUR: RESULTS AND ANALYSIS

4.0 Introduction

This chapter covers analysis of data and the findings of the study. The general objective of this study was to identify if indeed ICT enhances performance in the judiciary. One section covers the presentation of findings while the other gives a summary of the data analysis. The study was conducted on the 50 participants.

4.1. Results of general questions

The results got showed that only 4 of the participants were working as magistrates. This meant that they only came to the Mariakani Law Courts on specific days and would transfer to other courts as a way of ensuring service to all without undue familiarity to the citizenry. The other 16 employees were permanently employed by the judicial service commission to work in the Mariakani Law Courts, while the others are junior staff members.

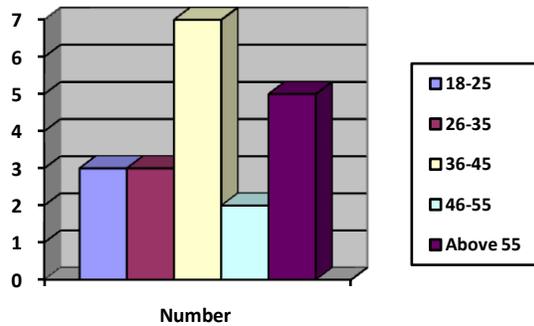
When it came to gender, there were both male and female participants. In addition, the number shows that all the participants turned up for the study. The findings of their gender are as shown below:

Gender	Number
Male	18
Female	32
Total	50

Table 1: Gender of participants

The ages of the participants were not evenly spread with majority of them being 36 to 45 years.

There was also a large number that was above 55 years as it is shown below:

**Figure 2: Ages of participants**

There was a question that seeks to know the duration that the participants had worked in the Mariakani Law Courts. Majority of them had worked for over three years in the law courts as it is shown in the table below:

Duration	Number
Below 1 year	18
Between 1-2 years	15
Between 3-5 years	9
Over 5 years	8
Total	50

Table 2: Years worked in the law court

The participants in the study held three main positions including magistrates, senior staff members and support staff members. Their numbers is as shown below:

Position	Number
Magistrates	4
Senior staff members	22
Junior staff members	24

Table 3: Positions held by the participants

4.2 Results on ICT adoption

The first question under ICT adoption was meant to establish ICT resources in the Mariakani law courts. This was clarified as the resources for official use rather than personal use. The results were as shown below:

ICT resource	Number using
Computers	15
Telephones	10
Websites	4
Emails	6

Social media 0

Local area network 0

Table 4: ICT resources used

The role of ICT is expected to be used by all judicial officers and judicial staff members. However, considering that there are many challenges associated with it, some may opt to find it not only cumbersome to embrace but also unnecessary to work with. The second question in this section was meant to know how well the participants knew the importance of adopting ICT in the judiciary. Almost half of the members of staff supported to a larger extent that they knew the role of adopting ICT in the judiciary with none of them not showing to know at all. The results got are as shown below.

Not at all	Small Extent	Not Sure	Some Extent	Large extent
0	5	7	18	20
0	0	0	0	0

Table 5: Understanding the role of adopting ICT in the judiciary

There were varied roles of adopting ICT in the judiciary that were developed and they all got strong support as shown below:

	Strongly Agree	Disagree	Neither agree nor disagree
For better governance	14	4	2
Making work easy for judges and the other staff	15	5	0
Solve challenges in the business sector	12	7	1
To save time and money	12	8	1
For better public reach	13	7	2

Table 6: Roles of adopting ICT

Lastly, 18 of the participants believed that use of ICT in the judiciary can improve performance. There were only two who declined the fact that ICT adoption can bring in better performance in the judiciary.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the findings of the main study, conclusions and recommendations arrived at. It also gives suggestions for further studies.

5.1 Summary

The results show that there is gender balance in the Mariakani Law courts. This is crucial for the study. In addition, many of the participants were above 30 years which shows that they had been exposed enough to the introduction of ICT infrastructure. Many of them had also over three years of working in the Mariakani law courts. This ensured that the participants for the study were the right ones since they had a good experience working in the judiciary.

The study also found that ICT infrastructure already exists in the judiciary and that is a strategic tool to enhance efficiency and effectiveness. The study shows also that many of the participants have access to personal computers i.e. desk tops, laptops, I pads and telephones as ICT infrastructure. The same were introduced in the judiciary a while ago. There were also plans to have a local area network in court station. The ICT resources available are the common ones that were used Ten years (Boomer et al. 2010). There are new ICT resources that will be needed in the judiciary like video link to maximize on time spend on travels for the expert witnesses and others of the like nature.

The role of adopting ICT as a strategic too in enhancing performance in the judiciary is unarguable therefore (Guillaume, 1995). Three quarters of the participants were quite sure that

they knew the role of ICT in the judiciary and appreciated it as much. There are varied roles which make the work of judges and other judicial staff easier. This was the highly supported role which shows that the participants are willing to make the most of the ICT resources. In the business sector, many supported the important role of adopting ICT in the judiciary. This is because business issues are addressed by the court and with ICT in place the courts will solve such disputes easily and businesses will continue running in real time. For the role of saving money and time, many did not support. This is because of the incorporation of the time and money together (Fabri&Contini, 2001). If time had been used, many would have agreed, however, with money many disagreed. There is a common understating among the staff members that adoption of ICT is very expensive. Therefore, many find it inconceivable whether it should be adopted or not considering the high cost associated to the installation and operations of with ICT.

5.2 Conclusion

In the circumstances, our courts should be redesigned to accommodate ICT infrastructure. The courts being paperless stations and all manual operations brought to a stop. There was no case management system in use at the Court of Appeal, so records management integration with ICT at this level could not be assessed. Nevertheless, some conclusions about the planning for records management in the electronic environment can be drawn from the structures in place for introducing ICT into the judiciary.

The composition of JICT includes representatives from e-Government and the Kenya ICT Board, but there is no representation for the records management function, either from the judiciary's records management cadre or from KNADS. This suggests that there is a focus on hardware and

software, but not on the information being managed and the controls that will be needed to manage electronic records over time.

It is also of concern that digitisation of court records began before the design of the system for managing the digital surrogates. The digitisation is proceeding without the specifications needed to manage digital surrogates over time. At present there are five million digital surrogates of court records being managed in an office system that has not been tested for records management functionality. It is unclear what intellectual controls have been placed on these surrogates, such as naming and indexing rules, to ensure they can be retrieved over time. These surrogates are at risk of corruption or loss, and it is unclear whether the originals have been kept and are being preserved to ensure the ongoing functioning and accountability of the courts, in the event that there are problems with the digital records.

5.3 Recommendations

The judiciary should adopt ICT initiatives after they have a specific plan in place to do so. Those efforts that are created around an IT based mission should also be specific about how IT should be used, making it clear whether the effort exists to provide access, training, content, or some combination of these three. Future research should focus on the challenges and effects of adopting ICT in the judiciary.

References

- Alter, K (2011). The Evolving International Judiciary. *Annual Rev of Law and SocSci*7: 387-432.
- Anja, S. (2012). *Judicial Independence in Transition*. New York: Springer.
- Argyroudis, P. (2006). *Authorization management for pervasive computing* (Doctoral dissertation, University of Dublin, Trinity College).
- Cislaghi, M., Eleftherakis, G., Mazzilli, R., Mohier, F., Ferri, S., Giuffrida, V., & Negroni, E. (2009, January). Secure Judicial Communication Exchange Using Soft-computing Methods and Biometric Authentication. In *Proceedings of the International Workshop on Computational Intelligence in Security for Information Systems CISIS'08* (pp. 11-18). Springer Berlin Heidelberg.
- Contini, F. & Lanzara, F. G. (2009). ICT and innovation in the public sector [Electronic book]: European studies in the making of e-government. Palgrave Macmillan.
- Cunningham, P. M. (2006). *Exploiting the Knowledge Economy: Issues, Applications and Case Studies, Part 1*. London: IOS Press.
- Fabri, M. & Contini, F. (2001). *Justice and Technology in Europe: How ICT Is Changing the Judicial Business*. London: Kluwer Law International.
- Francesconi, E., Sartor, G. & Tiscornia, D. (2008). *Legal Knowledge and Information Systems: JURIX 2008: the Twentieth First Annual Conference*. London: IOS Press.
- Gichoya, D. (2005). Factors affecting the successful implementation of ICT projects in government. *The Electronic Journal of e-Government*, 3(4), 175-184.
- Gichoya, D. (2005). Successful Implementation of ICT Projects in Government. In *ECEG* (pp. 171-182).

- Gigler, B. S., & Bailur, S. (Eds.). (2014). *Closing the Feedback Loop: Can Technology Bridge the Accountability Gap*. World Bank Publications.
- Gómez, C. E. J. (2012). Impacto de la nueva Ley 18/2011 reguladora del uso de las TIC en la Administración de.
- Guillaume, G. (1995). The future of international judicial institutions. *Int'l & Comp LQ* 44: 848-
- Habermas, J. (2003) *Truth and Justification*. MIT Press.
- Hlungulu, B., Kunjuzwa, D., Ndlovu, N., Samalenge, J., Sikhumbuzo, N., Thinyane, M., & Terzoli, A. (2010, May). Technology solutions to strengthen the integration of marginalized communities into the global knowledge society. In *IST-Africa, 2010* (pp. 1-11). IEEE.
- Jakachira, B. T. (2009). *Implementing an integrated e-government functionality for a marginalized community in the Eastern Cape South Africa* (Doctoral dissertation, University of Fort Hare).
- Kordha, E., Gorica, K., & Ahmetaj, L. (2011). Managing It Infrastructure For Information Society Development. The Albanian Case. *Romanian Economic Business Review*, 6(2), 122-131.
- Markovic, M. (2014). International Criminal Trials and the Disqualification of Judges on the Basis of Nationality. *Wash. U. Global Stud. L. Rev.*, 13, 1-179.
- Ndou, V. (2004). E-government for developing countries: opportunities and challenges. *The Electronic Journal of Information Systems in Developing Countries*, 18.
- Odima, D. O. (2014, May). E-JUSTICE: DEFINE STEPS BY THE JUDICIARY OF KENYA. In *Scientific Conference Proceedings*.
- Olzak, T., Sabovik, J., Boomer, J. et al. (2010). *Microsoft Virtualization: The Complete Solution: Master Microsoft Server, Application, Presentation, and Desktop*. London: Syngress.

- Omwansa, T. K., Waema, T. M., & Omwenga, M. B. (2014). Cloud Computing in Kenya.
- Orna, E. (2004). *Information strategy in practice*. Aldershot: Gower.
- Owuor, V. (2014). The Role of Kenya's Private Sector in Peacebuilding: The Case of the 2013 Election Cycle.
- Reiling, D. (2009). Technology for Justice. *Information Technology Can*.
- Reiling, D. (2010). *Technology for justice. How information technology can support judicial reform* (p. 310). Leiden University Press.
- Saunders M., Lewis P. & Thornhill A. (2007). *Research Methods for Business Students*. 4th ed. London: Prentice Hall
- Scott, M. S. (2010). *Investigation and development of an e judiciary service for a citizen oriented judiciary system for rural communities* (Doctoral dissertation, University of Fort Hare).
- Shrivastava, U., & Bhattacharjee, A. (2014). ICT Development and Corruption: An Empirical Study.
- Siegle, J. (2014). ICT and Accountability in Areas of Limited Statehood. *Bits and Atoms: Information and Communication Technology in Areas of Limited Statehood*, 61.
- Sturges, P. (2008). Corruption, transparency and a role for libraries. *Innovation*, 37(1).
- Tseng, P. T., Yen, D. C., Hung, Y. C., & Wang, N. C. (2008). To explore managerial issues and their implications on e-Government deployment in the public sector: Lessons from Taiwan's Bureau of Foreign Trade. *Government Information Quarterly*, 25(4), 734-756.
- Velicogna, M. (2007). Justice Systems and ICT-What Can Be Learned from Europe. *Utrecht L. Rev.*, 3, 129.
- Yen, H. R. (2005). An attribute-based model of quality satisfaction for Internet self service technology, *The Service Industries Journal*, Vol. 25 No. 5, pp. 641-59.

APPENDICES

Appendix 1: Letter of introduction to respondents

.....
.....
.....
Dear Respondent

RE: DATA COLLECTION

I am a student at Jomo Kenyatta University of Agriculture and Technology. I am collecting data for my research project in partial fulfillment of master's degree. I am researching on the role of e-E-procurement systems on performance of banking sector in Kenya. This work is of importance not only in accomplishing my studies but also to the stakeholders in the Banking industry. Confidentiality of the collected data and anonymity of the respondents is assured and time taken to fill this questionnaire will be highly appreciated.

Thanks in advance.

Faithfully,

DOUGLAS MACHAGE

Appendix 2: Questionnaire

This research is meant for academic purpose. You're kindly requested to provide answers to these questions honestly and precisely as possible. Responses will be treated with utmost confidentiality. Please tick [√] appropriate or fill in the required information on the spaces provided.

SECTION A: GENERAL INFORMATION

1. Which court level do you work for?

The high Court

Subordinate Court

2. Gender of the respondent

Male

Female

3. Age in years of respondent

18-25

26-35

36-45

46-55

Above 55

4. Years worked at the Mariakani Law Courts?

Below 1 year

Between 1- 2 years

Between 3 - 5 years

Over 5years

5. What is your position in the law court?

Magistrate

Clerks

Secretary

SECTION B: ICT IN MARIAKANI LAW COURTS

1. Which of the following ICT resources do you have access to as part of your work?

Computers

Telephones

Emails

Website

Local Area Network

Social media

2. To what extent do you think the ICT resources in Mariakani Law Courts are improving the general performance?

Not at all	Small Extent	Not Sure	Some Extent	Large extent
<input type="checkbox"/> <input type="checkbox"/>				

3. To what extent do you use ICT resources in offering services to the public?

Not at all	Small Extent	Not Sure	Some Extent	Large extent
<input type="checkbox"/> <input type="checkbox"/>				

Do you think is playing a critical role in making the public build trust on the court?.....why?.....

4. To what extent do you understand the role of ICT in the judiciary? Please rank between 1-5 (5 being the highest)

Not at all	Small Extent	Not Sure	Some Extent	Large extent
<input type="checkbox"/> <input type="checkbox"/>				

5. To what extent do you think ICT infrastructure has improved performance in the judiciary? Please rank between 1-5 (5 being the highest priority)

	Strongly Agree	Disagree	Neither agree nor disagree
For better governance	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
Making judges work easier and the other staff	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
Help solve in the business related disputes	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
help save time and money	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For better public reach	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In your opinion what other roles would you add to the above?

.....

.....

.....

.....

6. Do you believe that the use of ICT infrastructure in the court system can help the judiciary to achieve efficiency?

Yes

No

Why.....
.....
.....
.....
.....

Thank you for participating.