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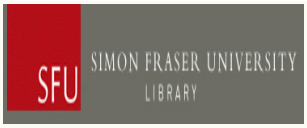



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THE INTEGRATION OF ICT's AND PUBLIC RECORDS MANAGEMENT, TOWARDS E-GOVERNMENT IMPLEMENTATION IN TANZANIA

A CASE OF ARUSHA CITY COUNCIL

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September 2011

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Date 23rd September 2011

APPROVAL PAGE

This research work has been read and approved as having satisfied the requirement for award of Masters of Business Administration in Information Technology Management in Faculty of Engineering and Computing of Coventry University in collaboration with Institute of Accountancy Arusha, Tanzania.

Sign.....

Date.....

Mr. John Pima Marco

Supervisor

ABSTRACT

This study aimed at assessing the usage of Information Communication Technologies in the management of public records as a part and parcel of e-government implementation in Tanzania. The study examine the use of ICT's during the creation, maintenance, use and disposition of records, the existence or non-existence of electronic records management policies and procedures, as well as e- records security measures at ACC.

A case study methodology was used and questionnaires were distributed to 37 officers selected from senior members of staff, IT staffs and records administrative personnel. Personal observations, documentary review were carried out and interviews were conducted to substantiate data gathered from the questionnaires.

The study revealed that ACC lacks organization-wide policies and procedures for the creation, use, maintenance and disposition of digital born records resulting in uncoordinated procedures for managing its e-records and that most of the processes for managing records were manual.

The study reiterate the call for collaboration between records staffs at the department and information communication technology (ICT) professionals in designing systems that take care of electronic records management requirements

Furthermore the study recommends that ACC develops and implements Council-wide e- records management policies and procedures to ensure the creation and maintenance of authentic, reliable, complete and useable electronic records, capable of supporting e- governance implementation and other business functions and activities for as long as they are needed.

Lastly the study concludes by calling upon the council to embrace e-records within an organisation by providing training to its records management staffs so as to impart them with the adequate knowledge and skills in e-records management.

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ACKNOWLEDGEMENT

In the first place I would like to record my gratitude to Gwakisa Kamatula for his advice, and guidance from the very early stage of this research as well as giving me extraordinary experiences through out the work. Above all and the most needed, he provided me unflinching encouragement and support in various ways. Gwakisa, I am grateful in every possible way and hope to keep up our collaboration in the future.

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I would like to thank the management of the Arusha City Council (ACC) for giving me permission to conduct my study at the City Council. I'm deeply indebted to Aika Joseph for her tireless cooperation and support during my data collection at the Council.

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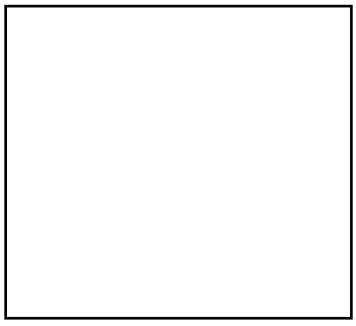
DECLARATION

This is to declare that the work contained in this dissertation is the original work of the author and that the work contained therein is my own except where due reference has been made. The work has not been submitted either in whole or part to any other University or for any award.

Date 23rd September 2011

……..... **Erasto J. Kayumbe**

Copyright acknowledgement



DEDICATION

This work is dedicated to my family and to the memory of my loving parents, late mother Christina Bora Kayumbe who passed away in 2004 and father John Bosco Kayumbe who passed away in 2005. Their loving spirits, care and support sustain me still. ***May their Souls Rest in Eternity! Amen.***

ABBREVIATIONS AND ACRONYMS

ACC	-	Arusha City Council
AIA	-	Arusha Institute of Accountancy
ARMA	-	American Records Management Association
CD ROM's	-	Compact Disk Read Only Memories
CSRP	-	Civil Service Reform Programme
DVD	-	Digital Versatile Disk
ERM	-	Electronic Records Management
ESARBICA	-	Eastern and Southern Africa Regional Branch of the International Council on Archives
EFS	-	Electronic Filing System
HCMIS	-	Human Capacity Management Information System
ICT's	-	Information Communication Technologies
IRMT	-	International Records Management Trust
IT	-	Information Technology
LGAs	-	Local Government Authorities
MBA	-	Masters in Business Administration
MDAs	-	Ministerial Department Agencies
MIS	-	Management Information System
NARA	-	National Archives and Record Administration
NASA	-	National Archives of South Africa
PSRP	-	Public Service Reform Programme
PO-PSM	-	President Office- Public Service Management

PRO	-	Public Record Office
SITA	-	State Information Technology Agency
SPSS	-	Statistical Package for Social Science
TPSC	-	Tanzania Public Service College
USB’s	-	Universal Serial Buses

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

1.1.1 Overview of the study

Increasingly governments all over the world are adopting information communication technologies (ICT's) to carry out their activities and operations resulting in what are famously known as e-government (World Bank 2004). E-government[1] is a way for governments to use new technologies to provide citizens with convenient access to government held information and services.

It also provides opportunities for citizens to participate in democratic institutions and processes by the use of electronic means of interaction. This therefore encourages the government to improve transparency and efficiency.

Following this fact, many governments and organisations in Tanzania, East Africa, Africa and the World generally are faced with real challenges on how to manage electronic records. The electronic records are increasingly being created and used in the course of business transactions because of the emergency of ICT's.

Moreover e-governance, e-commerce, e-banking, e-health, e-learning and other applications of ICT's to development are reality. At the same time many organizations are faced with a challenge of too much paper-based records and hence the need for automation, digitization and computerisation of the records management systems in a bid to improve service delivery.

[1] **E-government** is the continuous optimization of service delivery, constituency participation and governance by transforming internal and external relationships through technology, the internet and new media. This includes Government to Citizens, Government to Employee, and Government to Business, and Government to Government (Gartner, 2000 as cited in Fang, 2002:3).

Moreover, the study will make recommendations on how e-records which are increasingly forming part of the corporate memory of public organizations ought to be managed within the context of African governments at Arusha City Council.

1.1.2 Arusha City Council

Arusha City Council is a local government of Arusha City which was established under the Local Governments Act, 1985.The Council jurisdiction covers the area of over 208 square kilometers comprising 19 wards.

Arusha City which is the headquarters of Arusha City is located in the Northern part of Tanzania. It lies between 1450 and 1160 meters above sea level. The slopes transformed by volcanic activity, which are from isolated peaks, breaking up the gently sloping plains. These hills include Themi Suye, Nemas and many others.

The City is composed of rivers and numerous small streams which have their headwater on the slope of mount Meru or on the slopes on the above mentioned hills. Such rivers include Burka, Engarenaro, Naura, Themi and Kijenge all of which coverage to join Themi River to the Southern part of the City.

1.2 Statement of the problem

Information Communication Technology (ICT) is increasingly being used in organizations which have resulted in an increase in the generation of electronic records. Such records are as vital as paper records[2] when it comes to evidence to support accountability and transparency within organizations. ICT's is meant to support ease access of information with which organizations need to effect

[2] **Records** is defined as documents regardless of form or medium created, received, maintained and used by an organisation (public or private) or an individual in pursuance of legal obligations or in the transaction of business, of which it forms a part or provides evidence .

decisions. Such information should be authentic, reliable, trustworthy and integrity.

However many organizations still use manual systems which are ineffective than adopting ICT's which is more reliable and effective. Due to this practice, today many public organisations took long time to serve their customers with different information needs at the time they need it.

This has direct impacts in their day –to- day business transactions. As a result public records management has become so cumbersome in such a way that location and retrieval of information becomes difficult, inadequate information storage rooms, delay in decision making, loss of information, citizens right may be deprived.

This study therefore aims at assessing the usage of ICT's at Arusha City Council in the management of its records. The study is interested to find out whether ACC has a policy in place to ensure proper Electronic Records Management (ERM) which forms part of e- government

1.3 Aims and objectives of the study

1.3.1 General objective

The general objective of this study is to assess the use of ICT's in managing public records for improved performance in public sector organizations particularly at Arusha City Council.

1.3.2 Specific objectives

Specifically the study aims at investigate the following;

1. To examine the existence of an ICT policy at Arusha City Council,
2. Examine how ICT's is best used in managing public records,
3. To determine the level of security regarding public records born digital,

4. To determine the level of skills of personnel responsible for managing official records in digital format,
5. The challenges of managing records and associated ICT in Arusha City Council,
6. Propose for the best way of utilizing ICT's in the management of records at Arusha City Council.

1.4 Research questions

This study seeks to answer the following research questions;

1. What are the policies and procedures in regards with the use and management of e-records in public organisations?
2. To what extent does the ACC utilizing ICT's like computers in supporting the management of their records?
3. What are the challenges facing ACC with regard to the usage of ICT's?
4. What are the ways forward to increase the use of ICT's for efficient and effective performance of the ACC?

1.5 Significance of the study

Essentially the study is important in various aspects; the study looked the extent to which ACC is utilizing ICT's like computers in the management of their records i.e. the role of ICT's in managing public records as a part of supporting e-government in Arusha City Council, Tanzania. In particular, findings and recommendations of this study are expected to help policy makers at Arusha City Council and the government as well, in improving records management through the use of ICT's.

1.6 Conceptual framework

A concept is an abstract or general idea inferred or derived from specific instances. A concept is a word or phrase that symbolizes several interrelated

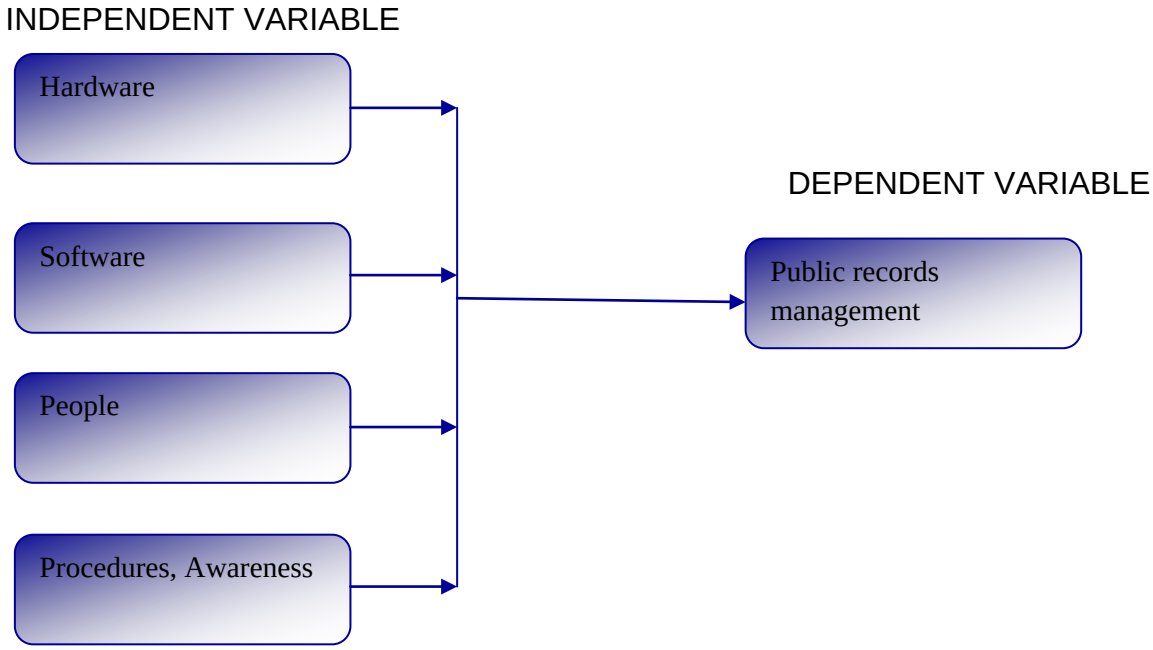
ideas. Unlike a theory, a concept does not need to be discussed to be understood (Smyth, 2004).

Framing is the formulation plans and important details; it is a way of conceiving something (Kombo and Tromp, 2006). Conceptual framework can be defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Reichel and Ramey, 1987). Thus, a conceptual framework is a tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and to communicate this.

In this study an attempt is made to find out how Information and communication technologies (ICT's) influence the management of public records. Records are a vital resource of all organizations, whose value for providing evidence and supporting accountability and transparency relies on their authenticity, integrity, accessibility and trustworthiness as well as preservation over time.

In an electronic environment, technological problems which are independent variable in this study looked upon as the usual IT problems and include fragile media, virus attacks, poor back-up practices, inadequate resources such tapes for back-ups, absence of systems documentation, lack of data formats and metadata standards, hardware and software obsolescence, inadequate bandwidth, inadequate data storage capacity, and inadequate security, have serious implications in the management of public records as a dependent variable towards the integration of ICT's and public records management. The diagram 1.1 below illustrates the dependent and independent variable in the integration of ICT's and public records towards e-government implementation.

Figure 1.1 ICT's, public records integration



Source: Author

1.7 Limitation and Delimitation of the study

In many ways technology and management of records are inseparable concepts. This study will look at the importance of ICT's in managing public electronic records[3] at the ACC. However ACC has six districts consisting of different wards, the study focused only at the ACC headquarters due to the time and financial constraints.

[3] **An electronic record** is a record created, housed or transmitted by electronic rather than physical means, and which satisfies the definition of a record. A record can consist of one or more objects, e.g. web page, file, e-mail or document (Smith 2007).

1.8 Thesis structure

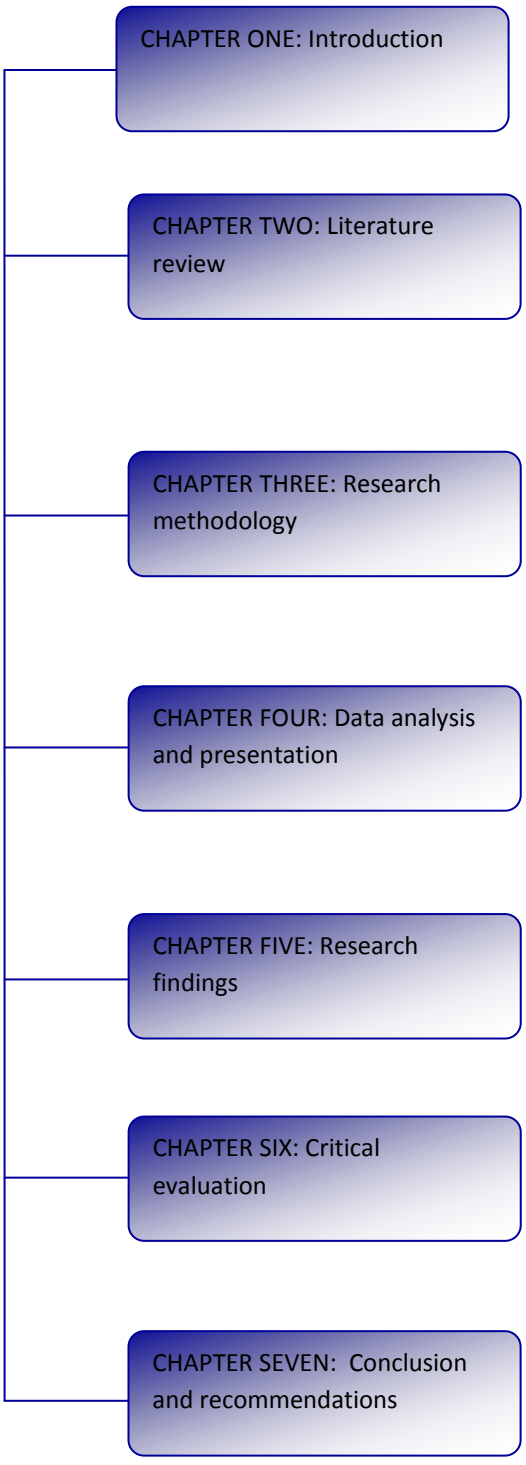


Figure 1.2 structure of the dissertation, Source: Author.

1.9 Summary

In particular, this chapter has discussed the background to the study. The chapter has also provided historical background of the ACC.

In addition, the chapter has provided the statement of the problem, objectives of the study, research questions, limitation and delimitations of the study, the significance of the study, conceptual framework of the study, thesis structure and lastly the summary of the chapter. The chapter that follows reviews literature relevant to the study.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on theoretical and practical issues relating to the management of public records inline with ICT's, that is e- records. E-records are the by-products of e-government where ICT's has become part and parcel of the daily government operations.

Therefore, this chapter specifically discusses the context of e-records management, planning and managing e-records, managing the creation, use and disposal of e-records, e-records preservation, importance of proper records management in public organizations, the impact of ICT's in public records management, e- records e-government integration, benefits of e-government, the significance of e-records for implementation of e-government, e-records management with respect to e-government worldwide, in Africa and in Tanzania and the challenges of e-records management. Lastly the chapter gives the literature evaluation at the end.

2.2 Relevance and Principles of the Study

2.2.1 Understanding the Context of Electronic Records Management

According to IRMT (2009), an electronic record is a record that is created, generated, sent, communicated, received, or stored by electronic means and that requires some form of computer technology to access and use.

An electronic record is basically written on magnetic or optical medium, such as magnetic tapes, CD-ROMs, DVD, hard disk, USBs stick and any other digital storage devices mainly accessed using computer software and hardware.

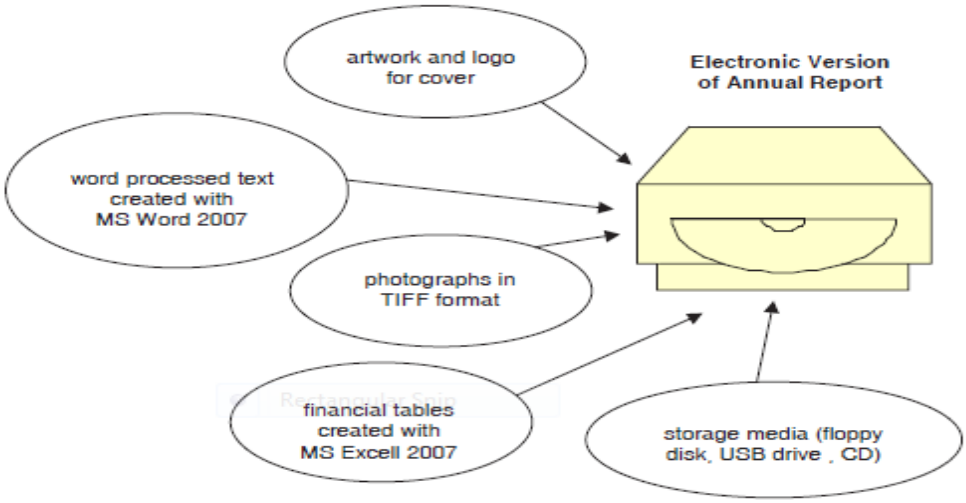


Figure 2.1 Example of electronic record, source: IRMT 2010 context of e-records

Essentially there are both benefits and drawbacks to use ICT's in managing records. Amongst the benefit of using ICT's in creating and managing records includes;

- Wide spread access
- Flexibility
- Efficiency and effectiveness
- Economic benefit
- General business opportunities
- Auditing capabilities and regulatory compliance

On the other hand the challenges associated with the use of information technologies in the management of public records include the following;

- Technological obsolescence
- Technological dependence
- Increased risk of lost data and record
- Risks to reliability and authenticity

- Loss of security and privacy
- Increased costs
- Decentralization of information
- The increased need for information technology specialists

2.2.2 Planning and Managing an Electronic Records Management Programme

In order to achieve a successful electronic records management programme, an organisation needs to establish a sustainable records management infrastructure, which includes developing policies for the management of records and information in all forms, including electronic and paper.

According to IRMT (2009), a records policy is a written, formally approved statement that explains why an organisation should care for its records, whether in electronic or paper form, in an effective and appropriate fashion, so that the records remain authentic and reliable evidence for as long as they need to be kept.

A records policy

- Provides clear guidance on what records are and why they need to be managed effectively
- Explains how good records management will serve the needs of the organisation
- Sets out general principles and policies relevant to the organisation on specific aspects of records management, which then form the basis for the implementation of new records management programmes
- Identifies statutory or other legal foundations for organisational record keeping.

2.2.3 Managing the Creation, Use and Disposal of Electronic Records

Essentially there are four common ways of creating, using and storing documents in an electronic environment such as in personal computers, where

individuals control the creation and use of the records, in shared computer servers, where individuals control the creation of records but share those records with others in the organisation, in shared servers with centralised control, where all individuals adhere to established procedures for creating and managing records, and in shared servers using electronic document or records management software, where control over the creation and use of records is strongly regulated.

Each of these approaches to creating and using electronic records can result in different methods for managing those documents, particularly for naming, filing and accessing records.

2.2.4 Preserving Electronic Records

Digital preservation is used to refer to the overall approach to preserving information and records created using computers, including electronic records (IRMT, 2009). Preservation is an ongoing process. There is no end point to digital preservation, unless a digital object ceases to be considered worthy of preservation.

This fact is equally true in the world of traditional preservation, although it may be less apparent because of the much greater timescales between preservation interventions in the manual environment. For example, a paper record may be safely stored for 100 years or more in an acid-free file folder in a stable storage environment.

The work involved in renewing preservation strategies for that paper record might only take place once every century, if the record is moved to a new storage facility or placed in a new acid free folder.

Preservation of electronic records requires much more intervention, and it involves the expertise of both records professionals and technology specialists. If preservation actions do not begin early, it might not be possible to preserve the electronic record, or restore it and use it, five years from now, never mind a century from now.

2.3 Empirical review

2.3.1 The importance of proper records management in public organizations

Scholars such as Durant (2007), Cook (1997), Dollar (1999), Bailey (1993), Williams (2006), and Shepherd and Yeo (2003) agree that proper records management is a key to the success of any organization. Records are the life blood of organizations and as such are seen as vital resources that need to be managed like other resources in organisations such as human resources, finance and supplies.

Records exist primarily because of the need to keep a record of transactions carried out, the process by which they are created, the manner of their creation, the way in which they are handled etc (Mazikana, 1990).

Observing such importance, SARA (1990) and Robek et al (2002) outlined the major objectives and benefits of a records management programme as follows:

i. To furnish accurate, timely, and complete information for efficient decision making in the management and operation of the organization in a costly manner.

ii. To process recorded information as efficiently as possible.

iii. To provide information and records at the lowest possible cost.

iv. To render maximum service to the user of records and to ensure the secure storage of vital records which are essential to resume operations in the event of disaster.

v. To ensure periodical legal disposal of records no longer needed as well as ensuring the preservation of archival records.

vi. To assimilate new records management technologies such as the use of micrographics, automated data processing and other information management techniques.

vii. To ensure regulatory compliance and minimize litigation risks.

viii. To support better management decision making and preserve the corporate memory as well as fostering professionalism in running the business.

With proper records management system in place an organization can fulfil its mandate of delivering services effectively and efficiently because records can be easily and quickly retrieved to be used for decision making.

Similarly, good records management helps in reducing operation costs in the sense that, none-active records will not be left to occupy facilities and space as they will be disposed in accordance to the rules and regulations of the country in question.

Furthermore, good records management provides the organization with evidence of recorded information in case of litigations concerning the actions or decisions made by an organization in the process of discharging its duties. In addition, well managed records serve as the corporate memory where future generations can learn about the past, and eventually transmit the tradition and culture for posterity.

This also enables organisations to improve their decision making based on the past information derived from archives. This calls for a close monitoring and control over the creation, distribution, utilization, retention, storage, retrieval, protection, preservation and final disposition of all types of records within organizations.

Moreover, effective recordkeeping and good governance are closely related aspects. Good governance is one of the main goals of public governments and organizations to date which aim at achieving accountability, transparency, responsiveness, effectiveness and efficiency, equity, and rule of law in the community.

According to Sebina (2003) good governance is the process, function and power of government. It is about how the government undertakes functions and activities in collaboration with the public, in making decisions and fulfilling the needs and desires of the public.

Similarly, IRMT (2005) affirms that information contained in the records is the most critical aspect of good governance. Efficient and effective records management provides the basis for poverty reduction, accountability, effective management of state resources, protection of rights and entitlements, services for citizens, anti-corruption strategies, and the rule of law.

However, Stevens (2003) has cautioned that without proper records management infrastructure, governments and organizations face difficulties in effectively managing their current operations, as they have no references to their past experience.

He further asserted that, effectively managed records are important to ensure the integrity and authenticity through time, and thereby allow employees to account to their managers and to the society at large.

In addition, Stevens observed that, records permit managers to account to the heads of government institutions as well as helping the heads to account to elected officials and others who represent the society.

As such, it is right to say that, records are a pre-requisite for increased transparency, accountability and good governance.

In the accountability perspective, authentic and reliable records are essential tools for safeguarding justice and fair treatment of citizens (Wamukoya, 2000). A case study conducted in Tanzania by the IRMT and World Bank (2003), revealed that a Civil Service Reform Program (CSRP) aimed at achieving a smaller, affordable, well-compensated, efficient and effective civil service was launched in 1991.

The initiative was followed by a second phase of reforms, the Public Service Reform Program (PSRP) in 2002 which included the management information system component that aimed at sustaining the establishment and payroll controls already in place.

This was also aimed at providing relevant, complete, accurate and timely information to managers and administrators. It also intended to support the modernisation of information and communication systems in government office and to improve the quality of information.

Moreover, IRMT and World Bank (2003) report noted that, a new Records and Archives Management Act which was passed in January 2002, gave the Archives clear powers to oversee records management across the public service.

This implies that, the government of Tanzania appreciates the importance of records management for the smooth operation of its functions and activities and has been able to take the necessary measures to improve recordkeeping in the public service.

However, according to the IRMT (2003) a review of paper-based personnel records in Tanzania has revealed serious weaknesses within existing systems. Considering the importance of proper records management programme, a records management project was implemented to improve the management of subject files, unlike the situation where one found out that documents were scattered in different files and in different locations within an organization, leading to files being incomplete, missing, or misplaced.

Improving the quality of the personnel files is a key precondition for sustainable accountability of the payroll and for improved management of the government of Tanzania civil service.

Similarly, the remarkable impact of ICT's in records and archives management has partly resulted from significant public sector reforms in Tanzania (Mwela, 2007).

According to IRMT (2003), in 1999 the Government of Tanzania launched a Civil Service Reform Programme (CSRP) which aimed at achieving a smaller, affordable, well-compensated, efficient and effective civil service. This initiative was followed in 2000 by a second phase of reforms, called the Public Service Reform Programme (PSRP) which included the Management Information System (MIS) component which aimed to sustain the effectiveness in the management of relevant, complete, accurate, and timely information to managers and administrators.

The MIS component was also intended to support the modernization of information and communication systems in government offices by introducing an integrated computerized personnel and payroll system.

2.3.2 The impact of ICT's in public records management

Information and Communication Technology (ICT) has become part and parcel of the daily government operations. The use of computers in government offices and elsewhere has led to efficiency and effectiveness in business transactions hence adding value to the administration of the organization. This being the case, there has been a shift in the manner which information is captured, processed, stored and disseminated.

Today, many organizations are creating electronic records through the use of office automation tools such as word processing, spreadsheets, electronic mail and database management software, all running on personal computers (Roper and Millar, 1999a; Mnjama and Wamukoya 2006).

Despite the wide use of ICT's in most government agencies as a part and parcel of e-government implementation, there is a lot to be done to manage public records using ICT's.

Email for instance, has become increasingly important in recent years, both as a communication tool and as a tool to record important corporate decisions (Smith, 2007). Smith further observed that, estimates of up to 80% of corporate decisions are now communicated through email. However, discussing the challenges of managing e-mail,

Keakopa (2008) observed that, most government agencies in Botswana and Namibia do not have policies that guide the creation and management of e-mails. She further revealed that, studies on the use of ICT and the management of electronic records have found that e-mail use is associated with many problems that need to be addressed accordingly to avoid risks that face organizations.

As stated by Baggiolini, Ramlckun and Solana (1994) in Keakopa (2008:73): "E-mail service lack reliability; messages are delayed; erroneously refused by the destination system or in some cases lost." To suppress such weaknesses, Smith (2007) suggested that, if organizations need to maintain a comprehensive corporate record of their business activities, arrangements to capture emails into the corporate electronic management system must be made in the first place.

2.3.3 Electronic records management, e-government integration

In particular e-records management and e-governance are closely two inseparable terms. E-government and good e-records management collectively enhance transparency, accountability and good governance.

E-records management refers to the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the process for capturing and maintaining evidence of information about business activities and transactions in the form of records in electronic format (Roper and Millar, 1999).

According to Lipchak and McDonald (2003) E-government refers to the use of information and communication technologies (ICTs) to enable government to deliver its programmes and services more effectively and efficiently and to increase the participation of citizens in their own governance.

Lipchak and McDonald (2003) point out that sound management of e-records, like their paper counterparts, is important in order to avoid informational gaps in public archives. Similarly, through ICT's, e-records need to be captured and preserved as e-archives so that they can be made accessible to the public just like traditional records such as paper-based archives. Effective records

management born digitally is important in aiding governments to be open, transparent and accountable.

Government-held information is being regarded as a public resource and all citizens have the right to access such information for them to demand accountability, transparency and good governance. The effects of not using ICT's in managing records can be far reaching and would necessarily imply that records may not be made available if and when needed for decision-making.

Wamukoya and Mutula (2005) note that chronic weaknesses in government record keeping can adversely affect public sector investment and contribute to the lowering of the general standard of service offered to business.

2.3.4 The benefits of e-government

In particular governments can differ on the speed and standard of implementing e-government, the following are agreed as some of the benefits in developing a successful e-government (Reynolds and Regio 2001):

- Deliver electronic and integrated public services. With e-government in place, governments can provide value-added and integrated services. Instead of physically visiting several different offices to seek for services, citizens can complete their transactions from a single point of access online, any time during 24 hours, in all 7 days a week.
- Rebuild government-customer relationship. Effective e-government enables the government to use new technologies to treat citizens as individuals and provide personalised services rather than providing services in a uniform way to all citizens.
- Create a more participative form of government. E-government can lead to a direct democracy. Citizens at all levels can participate on the online debates, discussion forums and online voting, hence contributing to the decision making processes on matters surrounding them.
- Foster economic development. Effective e-government can help business to be conducted online. As such, businesses come close to customers and instead of being local; businesses can grow and expand their markets

worldwide. Online tools can also help to develop local skills and increase employment prospects in turn.

- Achieve lifelong learning. Governments with e-government in place can prove right the concept that says education has no end to its people who finish school. This can be realised through the widespread use of e-learning. The society will continue to access current sophisticated education online and improve their production and service delivery.
- Bridge the digital divide. E-government can make it possible for governments to access new technologies available to the less fortunate members of the society and provide computer literacy education to those in need.
- E-government is advantageous as it improves delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. As a result, e-government can bring about less corruption, increased transparency, revenue growth and cost reduction (Fang 2002).

2.3.5 The significance of e-records for e-government implementation

Electronic records management is an important part of the infrastructure that will make E-Government work. The emergence and implementation of e-government in the world has necessitated the emergence of electronic records. In most cases e-government uses e-mail systems, databases, word processers, LANs etc in its daily business transactions.

This format of information needs a system like that of manual records from their creation to their disposition. This section aims at discussing the importance of electronic records in fulfilling e-government.

Public records in e-government should provide a source of public accountability of how elected officials and the bureaucracy have carried out their public trust and the mandate of citizenry (Lowell 1987). But it is through information that

accountability can be attained. Day and Klein (1987:243) argue that "information is the life blood of accountability".

It is further argued that the use of ICTs in government as an advanced communication means facilitates speedy, transparent, accountable, efficient and effective interaction with the public, citizens, business and other agencies. However, electronic information in any media should be readily available, understandable and reliable in such a way that it can be used to support decision making programs, accountability and transparency to the public all of which together make what is called e-governance.

This entails that properly managed electronic records lead to accountability and transparency as the public can use such records to hold the government and its leaders accountable.

This however depends on how one can prove beyond reasonable doubt that the information one uses as evidence is trustworthy and reliable.

In addition, Bekkers (1998) contends that the use of ICT's improves accountability in governments because the technology increases the transparency of organizations. People can access information about a particular organization through internet where they do not necessarily need to physically visit the organisation to seek whatever information they want.

In so doing they can also make some contributions necessary for improvement in governmental processes and decision making. Meijer (2000) observed that properly managed and accessible electronic records can provide data to reduce uncertainties in government.

The records of government captured electronically are a crucial source of information for accountability processes. It has also been observed that electronic records can always be used as evidence of what happened in the past so long as they contain important metadata including the sender, recipient, date, time etc. It has also been noted that, even if one deletes some electronic information for the purpose of distorting evidence, computer experts can always recover such information.

This however can only be possible whenever there is an effective and efficient computer system in place. A good example is in the case of Armstrong against

the former USA President George Bush in which his administration was alleged to have failed to archive millions of e-mail messages which were believed to have been deleted during his term. However, the missing e-mails were later restored.

Moreover, it can be argued that the use of e-mails as one of the electronic information communication systems used by many governments helps to capture more records for accountability. E-mails have proved to effectively replace the previous telephone conversation out of which records were not captured.

According to Smith (2007), estimates of up to 80% of corporate decisions are communicated through e-mail. This means that with e-mail communication systems, records which were not captured can now be captured and hence increase the amount of records to rely on for accountability.

Good information leads to good decisions by management with integrity. The use of office systems provides opportunities for easier and faster access to records. This is true as compared to paper based records where their retrieval may become cumbersome especially if the classification system is haphazard. With electronic systems, record managers can simply click on a specific code to reveal the required information.

Thus good record keeping is fundamental to government accountability in a democratic society. Record keeping provides evidence of what an organization has done how it does its business and why it took certain actions and made certain decisions (Swan, Cunningham and Robertson 2002).

However, it can be argued that accountability for record keeping is concerned with the quality of the records in terms of their accuracy, reliability and integrity so that they can serve current and future social and organizational purposes as well as providing individuals with accurate documentation of their entitlements and responsibilities (Lacovino1998).

In line with the above argument, Mnjama and Wamukoya (2006) observed that e-records and the information they contain is indeed a valuable asset that must be managed and protected. Besides providing essential evidence of organisational activities, transactions and decisions, e-records also support

business functions and are critical for the assessment of organisational performance.

This implies that without reliable e-records, e-government cannot be effective enough to manage state resources, its revenue or civil service. It cannot deliver services such as education and healthcare because essential information in electronic format will either be misplaced or deleted.

Moreover, Mnjama and Wamukoya (2006) argued that, without accurate and reliable e-records and an effective system to manage them, governments cannot be held accountable for their decisions and actions and the rights and obligations of citizens and corporate bodies cannot be upheld.

In order for e-government and ecommerce to be successful, governments must have access to information that possesses certain crucial characteristics, accuracy, relevancy, authoritativeness, completeness, authenticity and security. This calls for e-records to continue to be protected and preserved.

2.3.6 E-records management around the World

Cain and Millar (2004) point out that, governments around the world are seeking to computerize their core functions and use IT to streamline their operations. Fafor (2003) notes that the reasons for adopting ICT are based on the advantages associated with modern information technology in enhancing records management. The world over, sound management of records, whether electronic or paper, has increasingly become a topical issue.

The International Records Management Trust (1999) points out that without records there can be no rule of law and no accountability. In addition, without good records, government employees are forced to take decisions on an ad hoc basis without the benefit of an institutional memory.

Good records management is important to ensure that information is readily available when needed. Sound records management practices ensure economic, effective and efficient handling of records in addition to providing clear accountability structure, audit trails and enhancing good governance.

Cox (1994) points out that the management of electronic records in the developed world, especially in North America and Europe, only started gaining serious attention and recognition around the 1980s, when more countries started generating e-records as well as harnessing the use of computers to manage such records.

Similarly, Mazikana (2000) notes that the 1980s were characterized by global movements which led to the collapse and demise of totalitarian and communist regimes. This resulted in more widespread democratic governance and restoration of human rights and liberties.

Citizens began to be aware of their rights and to demand the right of access to government-held information. These developments awakened governments to the importance of sound records management practices for making publicly held information available.

Sound management of e-records in developed countries is considered critical in the running of modern government, especially in Australia, Canada, the United States and Britain.

The records tradition in Australia, as in most Commonwealth states, is dominated by the inheritance of British colonial registry systems of the late 18th and 19th century. Prior to the 1990s, the issue of e-records management was not seriously addressed and computers were only used as "facilitative tools to hasten the creation of documents" (Reed, 1997:1).

However, the Australian Federal Government has made remarkable strides in automating registry controls through reinvented records management programmes.

In order to ensure proper records management, the National Archives of Australia, in partnership with Australian government agencies, aims to ensure that full and accurate records are created and managed to support the Australian government and the interests of the Australian community (National Archives of Australia, 2006).

The records management community in Australia has been successful in forcing local software developers to conform to the records keeping processes required to manage records. Because of locally made automation packages, Australia

has emerged as a world-class records management software vendor (Reed, 1997).

McDonald (2000) states that the Canadian government and its public service have used paper records to record the decisions of government, the statutes of the nation and correspondence with citizens since 1867. Canada has sound records management legislation; public records which were once in the protected domains of government are now subject to access and privacy laws which encourage the sharing of these records. In addition, the Canadian government has evolved an electronic environment supporting applications such as Government Online.

The government is also providing leadership in the area of electronic records management by promulgating national standards for managing electronic records in order to meet evidentiary requirements in courts of law. A national standard for e-records, 'Electronic Records as Documentary Evidence' has been put in place. It establishes requirements for organizations to follow when creating digital records in text, database, image and audio formats.

Through this standard, agencies will be able to demonstrate the authenticity of e-records and the integrity of the system that recorded and stored the electronic record (Roberts, 1994; American Records Management Association, 2005). In the United States, David (1994) observes that records management originated during and after World War II and spread to many of the English speaking countries. Robek, Brown and Stephens (1996) state that the US Federal Government can be said to have been responsible for inventing records management, conceiving and implementing many of its core concepts.

The first General Records Disposal Act was passed by the US Congress in 1889. This was the first legal authorization for the routine and systematic disposal of valueless records in history. In 1912, the US Bureau of Efficiency was created to study government filing practices. The Bureau promoted the use of modern office equipment.

The American Records Management Association (ARMA) was formed in 1956 as the first nationwide records management professional association in the United States.

Records management in the US has experienced strong growth since the 1980s in terms of information needs, continuing growth in the volume of records and new information technologies.

Electronic records management initiatives in the US are spearheaded by the National Archives and Records Administration (NARA). These efforts aim at making it simpler for citizens to receive quality service from the Federal Government while reducing the cost of delivering these services.

The government is implementing a strategy to provide guidance on the management of e-records in order to enable agencies to transfer e-records to NARA in a variety of data types and formats so that they are preserved for future use by both the government and citizens (National Archives and Records Administration, 2002).

The US government has made it compulsory for all new government telecommunications and computer systems procurement to conform to open system functionality to enhance compatibility and connectivity. The benefits include efficient information transfer, use, authenticity and reliability of electronic records (United Nations, 1992).

In Britain, the Public Records Office (PRO) has developed a strategy which provides guidelines and standards on the management and preservation of records in electronic form. The strategy covers, among other things, requirements for the transfer of records in electronic form from creating agencies to the PRO (Public Records Office, 2004).Developing countries are also making strides in the management of e-records.

In Latin America for example, the Mexican government has automated procurement procedures as part of its efforts to fight corruption by facilitating a process of bidding and reverse bidding on-line. The system allows the public to see what services and products the government is spending its resources on, and what companies are providing them with these services (UNESCO, 2003).

In Argentina, computerization of records began in 1981 and there are a number of systems for different types of courts (International Records Management Trust and World Bank, 2003).

In Chile, the government issued a directive in 2001 calling for advancement toward the goal of a fully e-government. In 2002, the Chilean government passed an electronic signature Act and continued the process of integrating ICT within government (UNESCO, 2003).

In Asia, efforts to adopt e-governance to improve service delivery to the public are going on, though the issues of e-records management and preservation remain a challenge.

In Malaysia, for example, an e-government initiative was launched in 1999 and a human resource management information system was developed to facilitate recruitment, development, transfer, disciplinary, promotion, and retirement (International Records Management Trust and World Bank, 2003).

In China, the government has created an ICT-enabled national Agenda 21 network aimed at linking key national government, local government and public research institutions (Xiong, 2006).

In India, the government of Uttar Pradesh State introduced e-services whose goal is to simplify the delivery of city services by providing a wide spectrum of citizen friendly services. The e-services save citizens the time and energy of running around various departments to get services. The e-services provided include, but are not limited to, payment of utility bills, reservation of train tickets, getting birth and death certificates, vehicle permits and driving licenses (UNESCO, 2003).

Compared to its counterparts in the region, the Singaporean government is a success story in the area of computerization of government services and the management of the resulting e-records.

Because of high levels of education and computer literacy, Singapore has been able to use IT effectively to streamline business processes and improve service delivery. In 1990, the use of technology in the courts was harnessed to reduce the backlog of cases and improve case management.

Online legal services, the establishment of a 'technology court' and the launch of an Electronic Filing System (EFS) enabled all civil cases and court records to be held electronically. The intention of the 'technology court' is to utilize technology

to assist lawyers in presenting their cases and to support witnesses in giving evidence to improve the delivery of justice.

Witnesses are able to testify from remote locations or even overseas and the court is able to handle sensitive matters (International Records Management Trust and World Bank, 2003).

2.3.7 E-government and e-records management in Africa

As far as e-government development in Africa is concerned, Heeks (2002) points out that though governments have been using information technology for more than 40 years, key innovations such as computer networks, intranets and the Internet started to emerge on the continent only in the late 1990s.

He notes that e-government as we know it today is only starting to slowly diffuse within the continent, due in part to lack of e-government readiness infrastructure. Studies show that most countries in Africa, compared to their counterparts elsewhere, especially in Europe and the Americas, are lagging behind in the management of e-records and the use of ICT. The root cause of the problem can be attributed to the 'digital divide' from which Africa suffers, in part due to its tradition of oral-based society.

Mutasa and Mashingaidze (2005:2) note that the reason for undeveloped ICT in Africa is "mainly because the ICT concept is not an African native concept, and therefore, it is very natural to find it difficult to integrate a foreign concept into African Society." Mutiti (2001), in a survey of e-records management in the countries of East and Southern Africa found that there was limited progress in the management of electronic records by public institutions.

The study revealed that countries in the region lacked legal and administrative frameworks within which to operate in order to develop and implement electronic records management programs.

Kenya, for example, like other countries in East and Southern Africa, lacks adequate resources to provide training that can equip records staff with the skill to manage records in an electronic environment. The ICT infrastructure in Kenya is also inadequate to support e-records management, and there is a lack of

adequate power supply and reliable telecommunication systems. The absence of an IT policy in Kenya also undermines the exploitation of ICT resources within the public service (Kemoni and Wamukoya**,** 2000).

In Tanzania, some progress has been made with regard to the management of e-records and the National Archive staffs have received basic training in electronic records management (International Records Management Trust and World Bank, 2003).

In South Africa, the management of electronic records systems in government has not been effectively controlled, although the National Archives of South Africa (NASA) Act of 1996 makes provision for electronic records. The Act gives NASA the power to determine the conditions under which e-records can be produced, because there is no cooperation between creating agencies and NASA. NASA and the State Information Technology Agency (SITA) are involved in a project to establish standards for e-records management in government bodies and in addressing issues of storage, environmental conditions, metadata, migration strategies, preservation and security (Abbot, 2001).

In Lesotho, an investigation revealed that e-records in the public sector were not being well managed. Lack of enabling legislation, policy, strategies and guidelines that specifically dealt with managing e-records was hampering progress in this area. In addition, the Lesotho public sector lacks highly qualified personnel with the requisite expertise and skills in the management of e-records (Sejane, 2003).

2.3.8 E-government and e-records management in Tanzania

E-government in Tanzania is just starting to be appreciated by the bureaucracy, although Tanzania has a fairly modern technical infrastructure that is capable of providing e-government services to the general public and business. Government continues to invest in ICT's as tools for enhancing efficiency and service delivery.

Underpinning Tanzania's aspirations for e-government is a national ICT Policy, approved by Cabinet in March 2003. Policy objectives for the 'Public Service'

envisaged the Government as a model user of ICT, and supporting ICT to promote good governance, transparency and accountability (International Records Management Trust and World Bank, 2007).

The policy envisages a transformed government in a digital age with a service delivery reform program aimed at improving service quality, reducing red tape and realizing great efficiencies in the public service.

A key component of the country's Public Service Reform Programme, Phase II, was to promote e-government and knowledge management as a means of improving governance and service delivery. Tanzania is moving forward to enhance its ICT infrastructure and to develop its capability to deliver services using new technologies.

The Government recognised the need to incorporate records management in the design of ICT systems so that they were capable of managing, protecting and providing reliable information over time.

This objective had yet to be achieved, but computers were commonplace in most ministries, and increasingly government business and communications were conducted electronically through email, the web, desk top computers and networked information systems.

To make the transition to e- government, it was found necessary to change the existing working culture and business practices.

This in turn depended on an infrastructure of records management policies, standards, procedures and trained staff (International Records Management Trust and World Bank, 2007).

Though there are detectable e-government efforts, they are largely uncoordinated, as reflected in the proliferation of websites by different ministries, as these ministry websites are not designed around the needs of clients and have no common standards. The lack of an overarching e-government policy has resulted in ministries developing their own websites without unified standards.

However, this situation is likely to change once a national ICT policy is fully implemented and applied across government. Through a well-designed e-

government policy, the public and businesses can benefit significantly from online access to basic government information and services.

Moreover, information on health, jobs and education can be provided easily with significant impact. Similarly, simple online transactions such as applying for and obtaining licenses, registration and permit applications can improve customer service standards and reduce cost for the citizen and government.

Similarly, government will simplify access and service delivery by developing an e-government portal. The portal will be designed around the needs of client groups, making the organizational structure of government more transparent and accountable to citizens and business, public servants and visitors. It will provide the means by which government will interact with its constituents, clients and partners. This will extend the reach of government and provide everyone with access to information and services from virtually any location and at any time via the Internet.

Government services will also be available online from community access centres, mobile Internet units, kiosks placed in shopping centres and strategically placed terminals located in government offices. The policy proposes connecting all communities in the country in order to provide residents of rural, remote and urban communities with affordable access to computers and the Internet.

Through community access centres, every citizen will be provided with a broad range of information services such as local community services, information on jobs, education, health, business, etc.

E-records management in Tanzania is still in its infancy and is influenced by the structure of the public service sector. There is currently an ongoing computerization programme in government, which has occasioned the proliferation of e-records in the form of spreadsheets, databases, word processed documents, e-mail and websites.

2.3.9 Challenges of e-records managements in African governments

The challenges facing e-records management can be looked at in a variety of ways. African governments in general and the east and southern Africa region in particular, face major challenges with regard to the management of records and archives in general and e-records in particular (Mutula and Wamukoya 2009). They further noted that, poor records management practices especially with regard to e-records; inadequate skills and awareness about importance of sound records management; poorly developed IT and telecommunication infrastructure; and limited funding to agencies with statutory responsibility for records conspire to hinder effective records management in east and southern Africa.

The following discussion covers specific challenges that face records managers and archivists in Africa.

Media format variety, the media on which most electronic records are stored are fragile and inherently unstable; without suitable storage conditions they will deteriorate. Despite the drawbacks of paper-based records, traditionally it has been much easier to preserve manual records as compared to electronic records.

According to Wato (2004), high quality paper records can last from 500 to 600 years. This is not the case with e-records stored in compact disks (CD), digital versatile discs (DVD), optical discs, and magnetic tape and other storage devices.

File format variety, no matter how hard records managers and archivists may try to store these formats, there comes a time when they deteriorate. As observed by Smith (2007: 136), "...these media have been designed for short-term storage of information. After relatively a short period of time it is unlikely that the hardware and software will be available to access the records. In addition the media themselves may physically deteriorate".

Electronic records are machine dependent, requiring specific hardware and software to make them accessible. They depend on the software and hardware of the computer through which logical structures of records are provided rather than physical structures as in the case of paper records.

Unlike paper records, electronic records are captured on machine mediums which need to be converted to human readable form without which no human being can read and understand them.

Originally, electronic records use binary digits or symbols of 1's and 0's, a computer magnetic language that needs to be converted into a human readable form before they can be accessed.

In such a process, information contained in records can be compromised hence making it difficult to assess who is accountable should anything go wrong somewhere in the business transaction.

In other words, records managers and archivists have little or no knowledge and skills in information technology with which to ensure that records remain authentic and reliable all the time. As such, the whole meaning of e-government becomes compromised without essential records.

Moreover, the inevitable obsolescence of the hardware and software necessary to store and retrieve e-records is among the challenges facing information professionals especially in African countries.

The mushrooming of individual software for the creation of office documents such as text editors, spreadsheet applications and software for creating slides poses a risk to records. This is because such software enables individual civil servants in their daily work to create their own documents with no proper infrastructure to manage them. Some of this software lacks compatibility with other technology hence hampering long-term access to records.

Likewise, failure to access particular information may in one way or the other compromise accountability and trustworthiness. Although upgrading and changing software is often taken as an option to reduce the loss of electronic records, the accessibility and interpretation of information is always at risk.

Thus, for many African information managers this is a challenge that endangers the availability of records for their corporate memory because computer hardware and software keep changing every day.

This is to say, one can try to preserve the storage device against elements like heat, water, and dust only to be betrayed by technological changes which result in it becoming incompatible with the hardware or software.

A good example is the floppy disk which is no longer used in this modern environment. In such instances, vital records which form a base of evidence of business transactions over time may be lost or become inaccessible.

Moreover, changes or alterations can potentially be made to electronic records with ease which means that the essential characteristics of a record (as defined by the ISO 15489) – authenticity, reliability, integrity and usability can be compromised as well.

Nowadays, most government and non-government organizations use web technology for interactions and transactions with their stakeholders. But smart hackers can access and change data from outside and distort useful information needed for an organization.

Furthermore, organizations risk loss of information when websites are updated and old information is not preserved. All such instances make it difficult for records managers and archivists to detect if there are no proper systems to safeguard the records' authenticity, reliability, integrity and usability.

Additionally, the preservation of e-records requires new skills and closer co-operation with specialists. Following the implementation and use of ICT's in organizations, it has led to a link of information from within one organisation to other organizations. Organizations can now share information through network technology and the exchange of datasets on websites. This entails that there are no longer boundaries between organizations.

This has been similarly been argued by Bekkers (1998) when he asserts that the boundaries between organizations are becoming blurred as a result of World Wide Websites communication throughout the globe. It may become difficult or even impossible for organizations to keep records for accountability because they can't control these records anymore.

In other words, with such technological advancement in communication, it sometimes becomes difficult to identify which organization owns what information. Such information entanglement may lead to complications if something in the process of managing records goes wrong.

As a result records managers and archivists have difficult times in making sure records are effectively and efficiently maintained and preserved for organizational purposes and for future public access respectively.

Likewise, there are no new organizational structures in place which are essential for supporting electronic records preservation in most African countries (Smith 2007).

According to Reffat (2006), for e-government projects to succeed they should not only attract citizens who are already connected to the internet, but must also move people online by developing e-government infrastructures and reach people in their physical world.

This was similarly observed by the World Bank and International Records Management Trust (2002) when they asserted that systems for creating, organizing, and preserving reliable official information have broken down in many countries. As a result, the ability of public sector institutions to be accountable, transparent and provide quality service delivery to citizens has been affected.

Despite the widespread use of computers in most public sector organizations in eastern and southern Africa, where electronic applications are being adopted for e-government purposes, the skills and the infrastructure needed to effectively manage them are missing (World Bank and IRMT 2002). Mutiti (2001) observed that the infrastructure for managing e-records in eastern and southern Africa faces various problems.

She identified some of the problems which are impediments to the automation of archives and management of electronic records as the lack of policies and guidelines on the management of e-records.

Moreover, there is a lack of skills to accommodate e-records and e-government among many information managers in Africa. it has been noted by IRMT (2003) that, records and information managers and national archivists have insufficient capacity and training to articulate e-records issues with which they could provide guidance and input to policy makers and planners.

On the same vein, Mutiti (2001) found out that some archivists were not fully conversant with their role in a national electronic records management

programme; they lacked skills in the management of e-records; there was a lack of standards, practices and procedures for e-records management; inability to provide guidance on e-records management to government agencies and e-records created in institutions being mismanaged and overlooked for long-term preservation and in most cases records get lost.

2.4 Literature Evaluation

The literature review above has revealed the need to incorporate ICT's in the management of public records. From the literature it has emerged that, African countries are faced with several challenges in managing records, particularly electronic records.

These border on technology obsolescence, inadequate trained personnel, policy formulation and implementation. These have made the structure, content and context of records to be altered irregularly.

Adopting integrated electronic information systems in government and organisation's transactions, electronic records management policy formulation and implementation, establishing more training outlet for records managers and archivists, developing metadata for locating records will go a long way in adequately by incorporating ICT's infrastructure in managing public records.

As a part and parcel of e-government implementation in Tanzania, the key component of the country's Public Service Reform Programme, Phase II, was to promote e-government and knowledge management as a means of improving governance and service delivery. Tanzania is moving forward to enhance its ICT's infrastructure and to develop its capability to deliver services using new technologies.

It has also been observed that, government recognised the need to incorporate records management in the design of ICT's systems so that they are capable of managing, protecting and providing reliable information over time.

This objective had yet to be achieved, but computers are commonplace in most ministries, and increasingly government business and communications are

conducted electronically through email, the web, desk top computers and networked information systems.

To make the transition to e-government, it was found necessary to change the existing working culture and business practices. This in turn depended on an infrastructure of records management policies, standards, procedures and trained staff. It is from this review that the present study aimed at accessing the use of ICT's in the management of public records at ACC.

2.5 Summary

The literature review above has revealed the relevance and principles of the study, importance of proper records management in organizations. From the literature, it has emerged that proper records management helps to furnish accurate, timely, and complete information for efficient decision making in the management and operation of the organization.

Moreover, effective and efficient e-records are essential when it comes to evidence in cases of litigation. It has been noted, however, that, though in developed countries such as Britain, Canada, Australia and America e-records are given priority and standards and proper systems are in place; the same is not happening in developing countries.

Africa in particular is lagging behind as in most countries e-records are ignored, readiness to e-government is still slow and as a result some decisions are delayed or not made at all.

Nevertheless, little has been done to ensure that in many African governments e-records are properly managed. This situation is increasingly exacerbated by lack of qualified staff in the field of e-records management, low priority given to e-records by organizations and lack of effective policies, procedures and legislations to facilitate the implementation of e-records management practices throughout their whole life cycle.

The literature evaluation elaborates the dependent and independent variables in the integration of information communication technology and public records

management, towards the implementation of e-government in Arusha City Council.

In particular, it is from this review that the present study aimed at investigating the usage of ICT's in supporting the management of public records at ACC. The chapter that follows explain the research methodology used in this study.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design, identifies the study population and explains the data collection instruments that were used in the study of the usage of ICT's in managing public records at ACC.

The chapter also depicts the relative strengths and weaknesses of the methods and instruments chosen by the researcher. Furthermore, the chapter covers the data analysis procedures that were used after the collection of data and the summary.

3.2 Research Design

A research needs a design or a structure before data collection or analysis can commence. Research design is defined as the plan or strategy for conducting the research (Wiersma and Jurs, 2009:118).

According to them, research design as a plan involves identifying participants for the research, and preparing for data collection activities that comprise the research process.

It further ensures that the evidence obtained enables one to answer the initial questions as clearly as possible by specifying the type of evidence needed to answer research questions, to test a theory, to evaluate a programme or to accurately describe some phenomenon (Gimblett, 2006).

There are various types of research designs such as social survey, experimental, observational, historical, delphi, bibliometrics, case study etc. The selection of the type of design to use depends on the nature of the problem (Aina, 2002).

This study was conducted as a case study. A case study is defined as "a detailed examination of something: an organization, or a school system"

(Wiersma and Jurs, 2009:241). It involves an in-depth study of an individual, organisation or even a community (Aina, 2002).

The researcher decided to conduct a case study because ACC was a government public organization and thus an in-depth study on the management and accessibility on the usage of ICT's in managing records as a part of e-government implementation was done.

The study used both quantitative and qualitative methodological approaches. Quantitative approach helped to collect facts and study the relationship of one set of facts to another and used techniques that are likely to produce quantified and generalizable conclusions.

The qualitative approach enabled the researcher to understand individuals' perceptions on themes under investigation by seeking their insights rather than statistical perceptions of the theme (Bell, 2005).

3.3 Location and Population of the Study

The population of this study included a total of 37 employees of ACC comprising the City Council's director (1), the Human Resources Managers (1), heads of departments/units within headquarters (12), Information Technology officers (4), Records officers (18) and Record manager (1) in all departments that fall under ACC headquarter.

These were selected on the basis of their duties in the organisation which include but are not limited to: planning, policy formulation, monitoring, ownership implementation and maintenance of the organisation programmes such as records management both paper based and electronic records.

3.4 Sampling Techniques

A purposive sampling technique was employed and the study targeted senior officers, IT officers and records officers. The officers selected are involved in the formulation and implementation of policies.

It is further observed that; " the power of purposive sampling lies in selecting information rich cases for in-depth analysis related to the central issues being studied" (Kombo and Tromp 2005: 82).

3.5 Data Collection Methods

In this study four data collection instruments were used to gather information. These include a questionnaire as a principal instrument, interview, documentary review and personal observation. According to Aina (2004), the use of triangulation method was highly recommended because it helps to validate the data collected from various sources.

As such interviews and personal observation supplemented the questionnaire hence validating the data collected. Each of these data collection instruments are further discussed below;

3.5.1 The questionnaire

A questionnaire is a set of questions printed or typed in a definite order or form so as to be mailed to respondents who are expected to answer the questions on their own and return the questionnaire. "The form of questions may be either closed (i.e., of the type „yes" or „no") or open (i.e., inviting free response) but should be stated in advance and not constructed during questioning" (Kothari, 2004:101).

Bell (1995) argues that questionnaires have advantages of being inexpensive and collects a lot of data that needs little interpretation.

In the same vein, Kothari (2004) observed that, this method is free from the bias of the interviewer; respondents have adequate time to give well thought out answers and large samples can be made use of and the results can be made more dependable and reliable. Similarly, Powell (1997) argues that questionnaires allow the collection of large amounts of data in a very short space of time.

On the other hand, the main demerits of a questionnaire is the low rate of return of the duly filled questionnaires; it can be used only when respondents are

educated and cooperating; lack of rapport and misleading data where the respondent fails to understand the question. This method is also likely to be the slowest of all (Kothari, 2004).

The questionnaire was the main data collection instrument for this study. Three sets of questionnaires (see Appendices E, F and G) with both open and close-ended questions were developed and administered. The first set of questionnaire (see Appendix A) was administered to heads of department/unit staff that are responsible for policy making and decision making as action officers from different units at ACC.

The questionnaire for this group focused on issues of policy, procedures, standards and tools for records management at the City Council. The second set (see Appendix F) was administered to records staffs that handle and monitor the municipal records regularly.

The questions for this group were designed to elicit information on the current records management situation at the central Council Records Management Unit and the Mini-Records Management Units from all departments and divisions in ACC.

The last set of questionnaire (see Appendix G) was administered to the IT staff. The researcher believed that this group of respondents was of great importance as they could provide a lot of desired information with regard to their specified responsibilities concerning information technology, which in a way relates to the management of electronic records at ACC, and thereby help to make the study fruitful.

The questionnaire was chosen due to its flexibility in data collection as it generates data that is simple to code for analysis, particularly when closed-ended questions are used. As observed by Moore (1987), a questionnaire lends itself the best for collecting information on different shades of opinions, which were in line with this study.

Moreover, open ended questions allow respondents to make an independent analysis of a problem over and above the multiple choices provided by the investigator.

However, the researcher was aware of the possible shortcomings of this method which included invalid and zero responses as well as loss of questionnaires by some of the respondents.

However, such shortcomings were addressed in advance by piloting the questionnaire before distribution. For the purpose of introducing the study and seeking permission to administer questionnaires as well as assuring respondents of confidentiality; a letter written by the researcher was attached to the questionnaires introducing the study.

The confidentiality of respondents was assured as it was clearly stated in the introductory part of each questionnaire that "all responses supplied will be used only for academic research purposes".

Further, respondents filled the questionnaires voluntarily and were not supposed to write down their names. The questionnaires were physically distributed by the researcher to respondents concerned and each respondent was allowed two weeks to complete the questionnaire and agreements on the day and time of collecting it were made.

3.5.2 Interviews

Apart from the questionnaire, interviews were used to collect data for this study. An interview is a data gathering method in which data is gathered through discussion or a question- response session.

Interviews can either be structured where a set of predetermined questions and highly standardized techniques of recording are used; or unstructured whereby a flexibility of approach to questioning is allowed (Kothari, 2004). Onyango (2002) stated that interviews are likely to consist of detailed descriptions of people's activities, actions and the full range of interpersonal interactions and organizational processes that are part of observable human experience.

According to Moore (1987), this method provides an opportunity to obtain qualified answers from the respondent by probing and prompting. Interview

complements the questionnaire as it can obtain more personal and somewhat confidential information which an interviewee may not want to write on a questionnaire.

During the interview session, the interviewer gets a chance to explain questions not understood on the questionnaire and where necessary, the researcher may probe beyond some initially superficial responses and to follow leads and clues in a way that is not possible in questionnaires, or mere observation (Oyiti, 1998).

The researcher was however aware that interviews have the following drawbacks: The respondent may feel as if he/she is under investigation and is being probed thus may become hostile; certain types of respondents such as important officials or executives may not be easily approachable; the method is relatively more-time-consuming especially when the sample is large; and respondents may give imaginary information just to make the interview interesting and impress the researcher.

For this study, two sets of structured interview questions were designed to accommodate the two study population groups. Two different sets of interviews were used to collect useful information from some senior officers such as Director of the City Council and Human Resource Manager at ACC (see appendix H); the Records Manager from the ACC central records management unit (see Appendix I) .

The interviews contained questions needed to fill the gaps that could not be filled by the questionnaires. Appointments for interviews with respective officers were not made in advance, but rather depended on the availability of ample time interviewees could get within their tight schedules at work. Notes were taken during interviews and recorded in a notebook.

3.5.3 Documentary review

The researcher also examined the documents of the ACC as another way of collecting data. In this method, the Records and Archives Management Act of

Tanzania of 2002, researchers register, finding aids and the report on the management of the ACC archives were inspected.

The researcher used this method in order to get in-depth information on legal and regulatory frameworks, and other documents on which the ACC records operated.

It was also used to enhance the validity and value of the study by filling in the gaps that could have been left by other data collection instruments.

This method was also used on a related study by Ngulube (2003). However, weaknesses such as authenticity of the examined documents, and judgement of the value of document contents were handled carefully by the researcher in order to ensure the right information for the study was obtained.

3.5.4 Personal observation

Personal observation is a tool that provides information about actual behaviour. This method refers to gathering data through physical checkups of the activities or processes. Bell, (2005:184) asserts that "Observation can be useful in discovering whether people do what they say they do, or behave in the way they claim to behave"

According to Onyango (2002: 92), observation can be categorised into two: participant observation and non-participant observation. Participant observation is structured and non-participant observation can either be obtrusive or un-obtrusive. In the non-participatory observation a researcher collects data undisguised but does not directly participate in the activities. Non-participatory un-obtrusive observation is when the researcher is involved in the activities under disguise.

Further, Kombo and Tromp (2006) asserted that, in structured observation the focus is on a small number of specific behaviour patterns and only those appearing on a pre-defined observation list are recorded. Structured observation can be criticized as being subjective and biased as one decides on the focus rather than allowing the focus to emerge (Bell, 2005).

On the other hand, in unstructured observation, the observer takes the position of an onlooker where data is collected in the form of descriptive accounts. Kombo and tromp (2006:96) argue that "unstructured observations are helpful in understanding behaviour patterns in their physical and social context."

Despite its many advantages, observation as a data collection tool has the following disadvantages: it is time consuming; the observer may lose the objectivity to the extent he participates emotionally; the problem of observation–control is not solved; and it may narrow-down the researcher's experience (Kothari, 2004).

This study used the non-participatory obtrusive observation. The researcher had the opportunity to inspect files, file indexes, records storage conditions, accommodation and facilities, retrieval tools and general behaviour of officers in the registries.

The reasons for choosing this method is that it gives the researcher the opportunity to experience the system used and it eliminates bias from respondents. The method also validates the facts obtained from the questionnaire. A check list (see Appendix J) was used to capture data on records storage conditions, accommodation and facilities, retrieval tools available and even observe the attitudes and behaviour of the records management unit staff.

Apart from the Central Registry, the researcher visited all records management mini- registries in the Arusha City Council headquarters and other departments that house e-records. This was purposely done to observe and examine the current situation of records management in both paper and electronic formats. An inventory form containing a list of items used to investigate as a checklist was helpful to gather information needed on records management practices at ACC (see Appendix J).

Table 3.1: Data collection instruments

Instrument	Type of data	Sources
Interviews	o Secondary data o Primary data	o Decision making staff o Policy making staff
Questionnaires	Primary data	o Decision making staff o Records staffs o IT staffs
Documentary review	Secondary data	Reports, public records historical documents.
Personal observation	Primary data	ACC registry, record management unit staff.

Source: Author

3.6 Validation of Data Collection Instruments

As argued by Bell (2005:147; 2010:151) that "all data-gathering instruments should be piloted to test how long it takes to complete them, to check that all questions and instructions are clear and to enable one remove any item which does not yield usable data."

This is a view supported by Aina (2002:81) who stated that ''pre-test is an opportunity to identify questionnaire items that tend to be misunderstood by the participants or do not obtain the needed information.''

It is further argued that, if possible, the pilot study should be done to a group similar to the one that will form the population of your study (Aina, 2002; Bell, 2010).

3.7 Data Analysis Techniques

As stated by Bell (2005) that unprocessed interesting information will mean nothing to the researcher or a reader unless they are analysed and interpreted. Enon (1995:94) defines data analysis as the process of bringing order to the data and manipulating it. In this study both qualitative and quantitative data was collected and then analyzed.

For quantitative data the Statistical Package for Social Science (SPSS) software was used for data coding. The SPSS then enabled the researcher to generate charts and tables indicating frequencies of study responses from categories of the respondents.

As noted by Bell (2008), SPSS is a computer application that provides statistical analysis of data and allows for in-depth data access and preparation, analytical reporting, graphics and modelling. In this regard, frequencies, and percentages, tables and figures were used to present the results obtained from descriptive statistics which made it easier when analysing and interpreting the findings.

On the other hand, qualitative data from open-ended items in the questionnaire, interviews, and personal observations was analyzed using thematic analysis. This form of analysis categorizes related themes/topics and major concepts are identified.

In this form the researcher perused the collected data and identified information that is relevant to the research questions and objectives and developed a summary report identifying major themes and the associations between them. The frequency with which an idea or word appears is used to interpret the importance, attention or emphasis (Kombo and Tromp, 2006).

3.8 Summary

This chapter has discussed the research methodology used in this study. It has described the research methodology used to assess the usage of ICT's in the management of records in public organizations in Tanzania at ACC headquarters.

The chapter has discussed the research methodology, the design of research, location and population of the study, sampling procedure, data gathering instruments and procedures as well as data analysis methods. The chapter that follows provides data analysis and presentation.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents the analysis and data presentation of the study on the use of ICT's in the management of records in public organisation towards e-government implementation at ACC in Tanzania.

The main objective of the study was to examine how ICT's contributed to the management of records in public organization towards the implementation of e-government. Data for this study was collected using four research instruments - a questionnaire, interviews, personal observations and documentary review.

The findings are presented according to the objectives of study and address the following areas: response rate, respondent's general profile, records management personnel, knowledge on policies on e-records management, creation and capture of e-records, e-records retention and disposition, access to e-records, security and disaster preparedness, ICT's infrastructures supporting e-records at ACC and challenges facing e-records at ACC.

4.2 Response Rate

The population of the study consisted of 37 respondents. Questionnaires were distributed among records staffs (officers who use records to conduct daily operations), head of departments/units and IT officers.

Twenty five questionnaires were completed and returned indicating a response rate of 67.6%, according to Babbie and Mouton (2001), such a response rate is considered as very good.

The respondents who did not respond and return questionnaires were either tied up with other official responsibilities or did not want to complete the questionnaire due to their limited knowledge on e-records management.

Furthermore, interviews were conducted to the city council director, human resource manager and record manager, making a total of twenty eight respondents. The distribution of the respondents and the response rate is illustrated in the 4.1 table below.

Table 4.1 Response rate

Respondent	Data collection instrument used	Expected respondent(s)	Actual respondent(s)	Percentage response rate
City Council Director	Interview	1	1	100%
Human resource manager	Interview	1	1	100%
Records manager	Interview	1	1	100%
Heads of departments/unit	Questionnaires	12	8	66.7%
IT staffs	Questionnaires	4	4	100%
Records personell	Questionnaires	18	13	72.2%
	Total	37	28	75.68

Source: Field data

Table 4.1above indicates response rate from two categories, interviewed and questionnaired respondents. The table reveals that 8 (66.7%) heads of

departments/unit, 4 (100%) IT staffs, and 13 (72.2%) records personnel managed to return the questionnaires.

The researcher interviewed three respondents as planned, city council director, human resource manager and records manager. The city council director was selected because according the Tanzania Records and Archives Management Act No.3 of 2002, Section 11 clearly states that; "The Director shall be responsible for the co-ordination of record keeping work in public offices, and parastatal organizations with power of inspection, and in particular for providing professional assistance, advice, and guidance on the establishment of filing systems; establishing and ensuring compliance with standards for the management of public records".

The respondent was selected as he was likely to give reliable information required for the study especially about whether he is aware of the existing of poor electronic recordkeeping practices at the ACC.

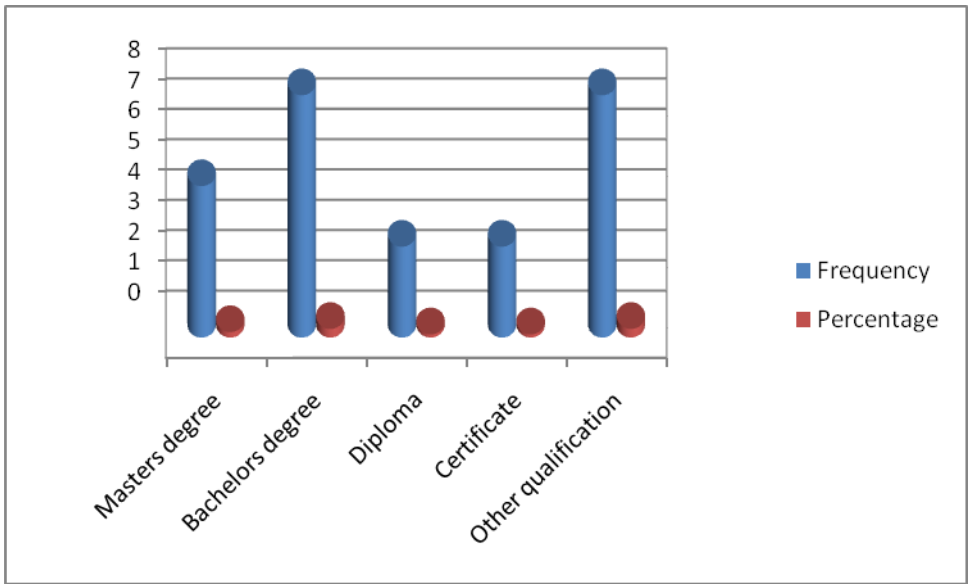
The response of the above mentioned groups therefore gave a response rate of 100%. These interviews were beneficial because the researcher discussed in detail issues pertaining to policies and procedures for managing e-records at ACC.

4.3 Respondent's academic profile

Of the 28 respondents, both interviewed and who returned questionnaires, 5 (17.9%) of the respondents had a masters degree, 8 (28.6%) bachelor degree, 3 (10.7%) with diploma and 3 (10.7%) had certificates.

A further 8 (28.6%) cited other secondary education certificates such as ordinary and advanced level certificates as figure 4.1 below indicates.

Figure 4.1 Respondent education level (N= 28)



Source: Field data

4.4 Job Qualifications of records personnel

The study also sought to find out the qualifications of records personnel who directly deal with both paper based records and e-records at the ACC. Table 4.2 below portrays their qualifications

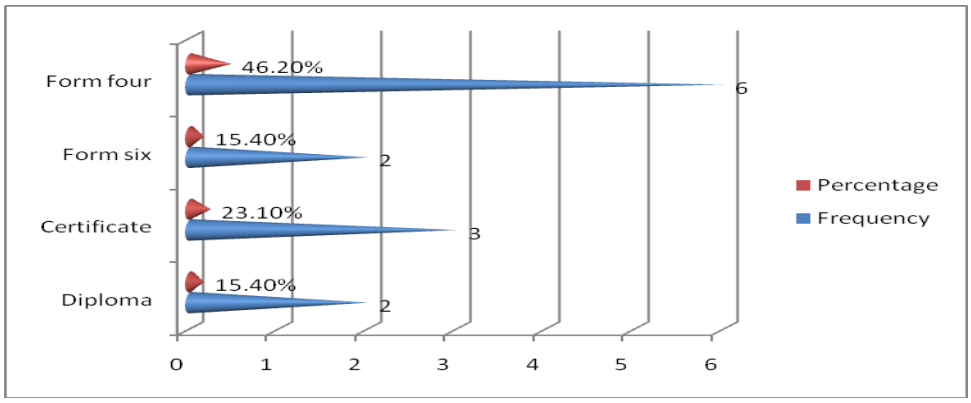
Table 4.2 Job Qualifications of records personnel at ACC (N=13)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	2	15.4	15.4	15.4
	Certificate	3	23.1	23.1	38.5
	Form six	2	15.4	15.4	53.8
	Form Four	6	46.2	46.2	100.0
	Total	13	100.0	100.0	

Source: Field data

Table 4.2 above indicates that 2 (15.4%) records personnel are diploma holders in records management, 3 (23.1%) have certificates in records management, 2 (15.4%) has a form six certificate and 6 (46.2%) have ordinary level certificates. The figure 4.2 below represents the same records personnel job qualifications situation.

Figure 4.2: Records personnel job qualifications N=13



Source: Field data

4.5 Formal training in e-records management

Mnjama (1996) argues that the effective management of a records programme must be supported by a team of well qualified records managers. ISO 15489-1:2001 recommends that organizations should establish an ongoing programme of e- records training.

This study, therefore, sought to establish if records officers at ACC have had proper training in records management.

Table 4.3 Formal training in e-records management (N= 13)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	23.1	23.1	23.1
	No	9	69.2	69.2	92.3
	Yet to proceed	1	7.7	7.7	100.0
	Total	13	100.0	100.0	

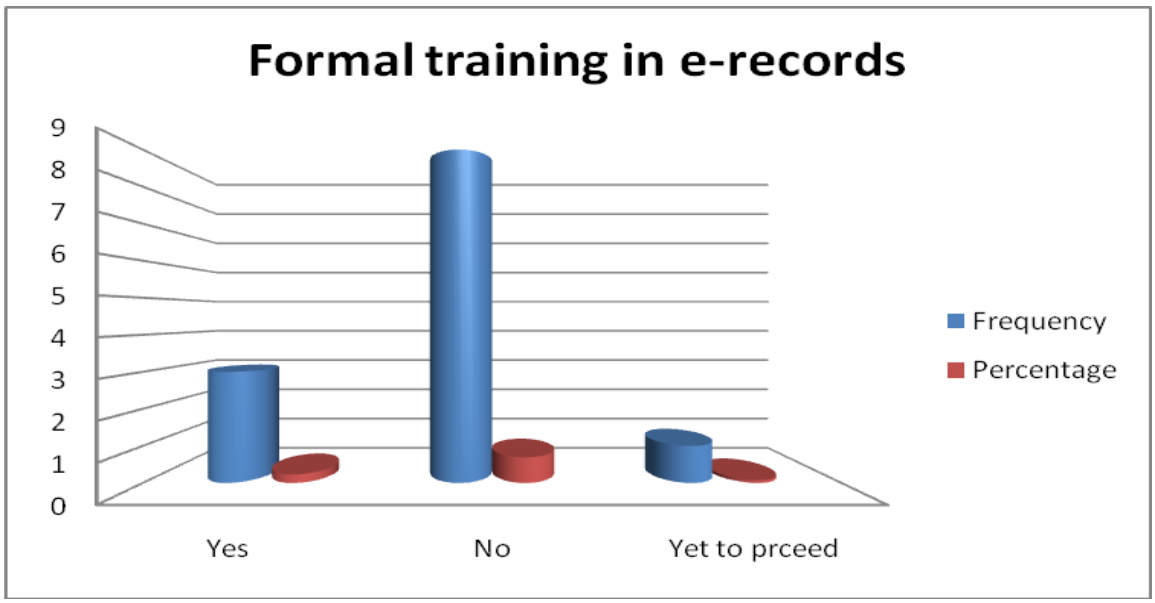
Source: Field data

The above table 4.3 revealed that only 3 (23.1%) of the respondents have had formal training in electronic records management while the rest of the officers who manage e-records have no formal training. 9 (69.2%) had not yet received formal training in electronic record and 1(7.7%) had yet to proceed.

Most of the officers were secretaries, administrative assistants or financial officers. As indicated the poor state of recordkeeping at the ACC may be attributed to the lack of trained personnel in e-records management and that it is only recently that the organization has approved an organization and methods review which recommended the recruitment of professionals in both paper based and electronic records management, a process which is still ongoing.

The below 4.3 figure depicts the true picture of staffs who received formal training in the field of electronic records management at the Arusha City Council.

Figure 4.3: Formal training in e-records (N= 13)



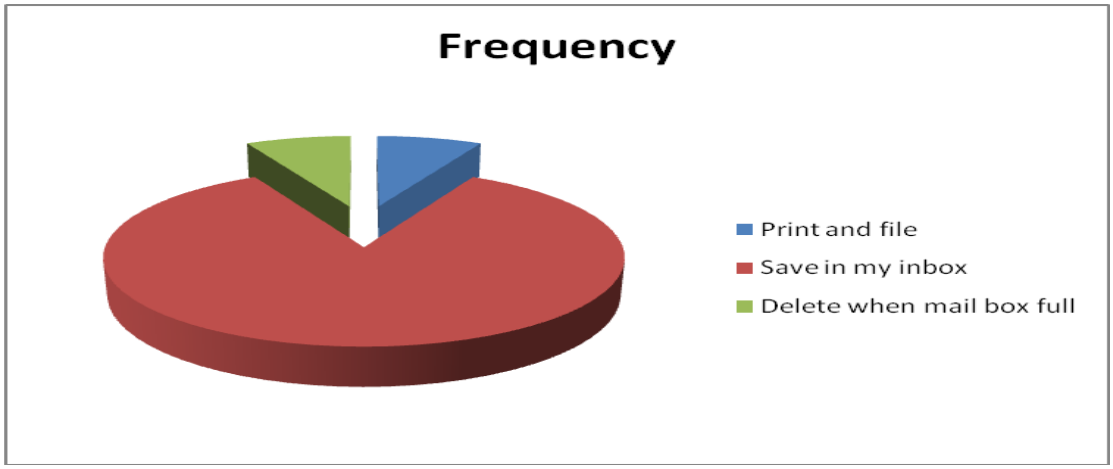
Source: Field data

4.5 E-records policies and awareness at ACC

4.5.1 E-mail management

Basically, respondents use computers for e-mail and typing of documents and sending of correspondences. But, whatever information is sent or received via email remains with individuals who are at liberty to delete or save the emails in their personal computers.

Figure 4.4: Official e-mail preservation (N= 13)



Source: Field data

Table 4.4 below reveals that only 1(7.7%) respondent print and file official e-mails, 11(84.6%) respondents save official e-mails in their private mail inbox and 1(7.7%) deletes when mailbox is full.

Table 4.4: Official e-mails preservation (N=13)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Print and file	1	7.7	7.7	7.7
	Save in my inbox	11	84.6	84.6	92.3
	Delete when mailbox full	1	7.7	7.7	100.0
	Total	13	100.0	100.0	

Source: Field data

These findings demonstrate a lack of awareness that e-mail constitutes official records and that e-mail that is generated during the course of business is not being captured in the official records system.

From the above findings, it was obvious that ACC employees do not view emails and records generated from the use of computers as forming part of official records.

4.5.2Creation and capture of e-records

ISO 15489-1(2001:11) states that ''determining which documents should be captured into a records system is based on an analysis of the regulatory environment, business and accountability requirements and the risk of not capturing the records.''

Based on this understanding, this study sought to find the types of records created by ACC. Respondents were therefore asked to indicate if ACC consider e-records as an organization resource and a format in which records are created and captured into ACC record keeping system.

Table 4.5: Main types of records handed in registry (N= 13)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Paper based records	9	69.2	69.2	69.2
	Hybrid	4	30.8	30.8	100.0
	Total	13	100.0	100.0	

Source: Field data

The above 4.5 table reveals that, 9(69.2%) of the respondents said that their organization or office mainly created or captured paper based record, whereas 4 (30.8%) indicated that their organization created and capture hybrid records, that is both paper based records and electronic records.

Therefore they consider records captured or created electronically as an organization asset. This result put very simply means that the organization does not rely much on the records generated electronically rather most of their records are paper based.

4.5.3 Retention and Disposal of e-records

A records retention and disposal schedule is a document that prescribes the length of time for keeping records and disposal actions in line with legislative and business requirements. ISO 15489-1 (2001:10) stipulates that ''records systems should be capable of facilitating and implementing decisions on the retention or disposition of records.

It should be possible for these decisions to be made at any time in the existence of records, including during the design stage of records systems. It should also be possible, where appropriate, for disposition to be activated automatically. Systems should provide audit trails or other methods to track completed disposition actions.''

This study therefore sought to establish the existence of retention/ disposition schedules at ACC. The findings revealed that presently there are no retention and disposition schedules at ACC.

When the respondents asked to state if there is any procedure in place for managing semi current and non current e-records 11 (84.6%) said NO while 2(15.4%) they have no ideas any procedures, as shown in the below 4.6 table.

Table 4.6: Procedures for managing semi-current and non-current e-records

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	11	84.6	84.6	84.6
	No idea	2	15.4	15.4	100.0
	Total	13	100.0	100.0	

Source: Field data

Similarly, it was evident that the organization does not have any programme on e-records, and there is no retention schedule on e-records either. There is no system that ensures e-mail records are saved from destruction before being captured in the records management system.

However, the results revealed that daily backups are conducted at ACC by the IT personnel. The results also revealed that currently there is no mechanism in place to ensure long term preservation and access to the e-records and also there is no system in place to ensure that official email is not destroyed.

All is due to the fact that ACC management and staff are operating under the understanding that ACC has not embraced electronic recordkeeping as yet, while the truth of the matter is for as long as email is used as a communication tool, e- records are being generated.

4.5.4 Access to e-records

The international standard for records management, ISO 15489-1: 2001, defines access as the 'right, opportunity, means of finding, using, or retrieving information', and also ISO 15489-1(2001:10) states that records systems should include and apply controls on access to ensure that the integrity of the records is not compromised.

They should provide and maintain audit trails or other methods to demonstrate that records were effectively protected from unauthorized use, alteration or destruction.'' For this reason, this study sought to determine who may have access to ACC e-records.

The study revealed that there are no guidelines on e-records access as the majority of respondents 9 (69.2%) said there are no any written guidelines on access restrictions to the departmental e-records, 3 (23.1%) had no idea on the access restrictions and only 1 (7.7%) agreed on the restriction scenario, table 4.8 below indicates the facts.

Table 4.7: Guidelines on access restrictions to e-records (N= 13)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	7.7	7.7	7.7
	No	9	69.2	69.2	76.9
	No idea	3	23.1	23.1	100.0
	Total	13	100.0	100.0	

Source: Field data

Moreover the findings revealed that retrieval time for e-records ranged from "a few minutes" to "sometimes".

4.5.5 Security and disaster preparedness of the vital e-records

Vital records are those which are considered to be critical to the business continuity of an organization or the re-establishment of operations after an emergency or disaster. On storage of vital records, respondents were asked to indicate whether ACC had vital e-records management programme.

Table 4.8: ACC vital e-records management programme (N= 13)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	23.1	23.1	23.1
	No	9	69.2	69.2	92.3
	No idea	1	7.7	7.7	100.0
	Total	13	100.0	100.0	

Source: Field data

The table 4.6 above revealed that, 9(69.2%) of the respondents said NO while 3(23.1%) said YES and 1(7.7%) has no idea. It is important for organizations to have disaster preparedness plans in place for security and for protection of their records.

For this reason, respondents were asked to state the procedures for e-records disaster preparedness plan at ACC. The responses indicated that there are no procedures or plans for the protection of Councils vital records. Moreover, it was interesting to observe that officers are not trained for any emergency procedures. Consequently, study findings indicated that the council has no off-site storage or any back up of its vital records. The Council Central Registry has no off-site storage or any back up system for its vital records in electronic format.

In addition respondents indicated that, the physical infrastructure required to store and manage electronic records must be protected from accidental or

deliberate damage. A range of controls may be implemented, including physical access controls, intruder detection systems, fire detection and suppression systems, and backup power supplies.

Furthermore the study revealed that ICT's infrastructures like computers, used in the capture and creation of e-records systems should be protected from intrusions by external hackers and other unauthorised users, and from damage caused by malicious code or other forms of software designed to infiltrate or attack a computer system. Counter-measures may include the use of password controls, firewalls and anti-virus software.

4.5.6 The role of ICT's department in managing e-records at ACC

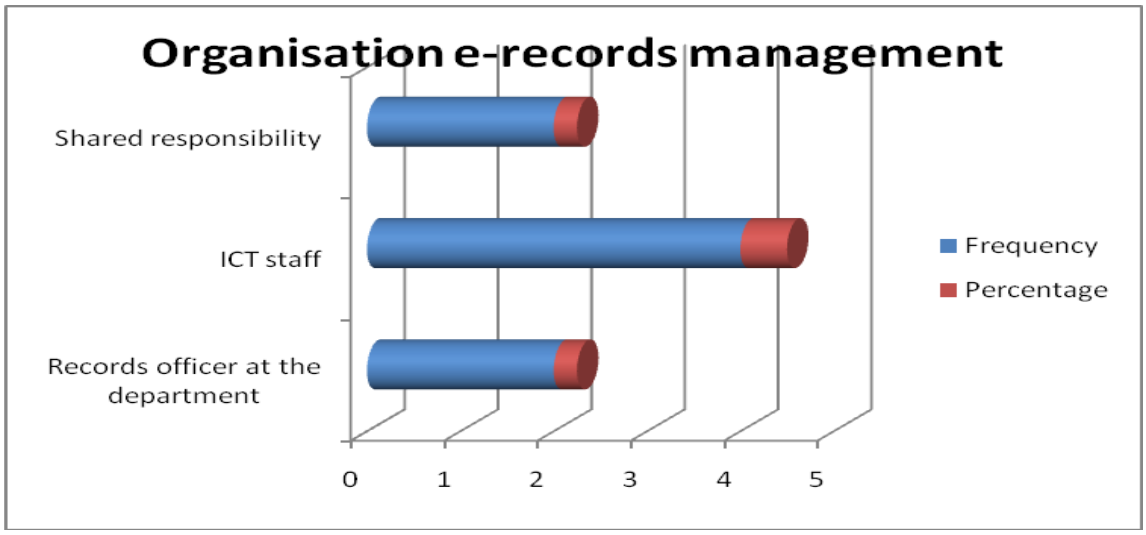
Furthermore the study sought to find the role of ICT's department in the management of organisational e-records. For this reason the head of departments/unit were asked to indicate the one who is responsible to manage e-records within an organization.

Table 4.9 Who manages e-records in your organisation (N= 8)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Records officer at the department	2	25.0	25.0	25.0
	ICT staff	4	50.0	50.0	75.0
	Shared responsibility	2	25.0	25.0	100.0
	Total	8	100.0	100.0	

Source: Field data

Figure 4.5: Management of e-records within an organisation



Source: Field data

The figure 4.5 and table 4.9 above reveals that, of the above 8 respondents, 2 (25%) of the respondents indicated that the responsibility of electronic records management resorted with the records manager at the department, as compared to 4 (50%) that indicated that it was the responsibility of the ICT staff.

The other 2 (25%) indicated that electronic records management was a shared responsibility between the ICT unit and records management unit, with the records management unit being the custodian and providing the specifications for records systems while the ICT unit provided the tools and technical support only.

4.5.7 Challenges facing e-records at ACC

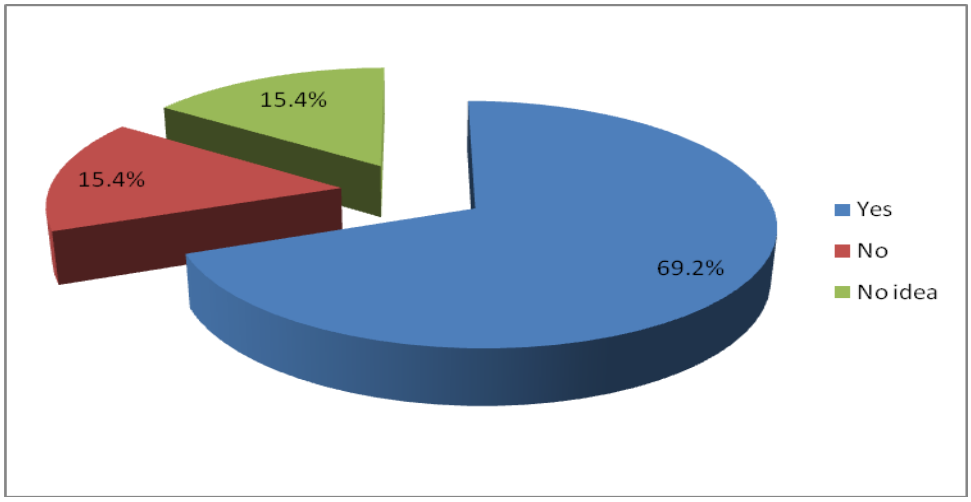
The last objective of this study was to examine the challenges faced by ACC in the area of e-records. All respondents were asked to indicate and state the challenges currently ACC is facing with regard to e-records. The records personnel department were asked to state if they face any challenges/problems in the daily discharge of e-records. The figure 4.6 below reveals that, 9 (69.2%)

of respondents said YES and indicates the challenges faced by the Council in the management of e-records as, lack of qualified e-records personnel, cost for covering technological absolence such as hardware and software as a matter of fact ICT's technology is changing very faster.

Other challenges noted by respondents includes unstable power supply i.e. electricity problem, the issues of security, low awareness on IT issues, privacy and authenticity as e-records can easily be accessed and changed by unauthorised persons.

The other 2(15.4%) respondents said NO implying no problem and the other 2 (15.4%) had no idea.

Figure 4.6: Challenges faced by ACC in e-records management



Source: Field data

4.6 Summary

The chapter was about data presentation and analysis. The study revealed that e-records management has not been embraced and given the status it deserves at ACC. This follows the fact that the council lacks basic e-records management requirements such as policies, standards, procedures as well as adequate

number of qualified records management personnel. As a result, the management of e-records are in a very poor condition in such a way that if immediate steps are not taken, the council documentary history and of the nation at large is likely to be lost in the future. The chapter that follows elaborate discussions and findings of the research.

CHAPTER FIVE

5.0 DISCUSSION OF THE FINDINGS

5.1Introduction

This chapter provides a discussion of the findings on the use of ICT in the management of records in public organisation towards e-government at ACC. The objectives of the study were:

1. To examine the existence of an ICT policy at Arusha City Council,
2. Examine how ICT's is best used in managing public records,
3. To determine the level of security regarding public records born digital,
4. To determine the level of skills of personnel responsible for managing official records in digital format,
5. The challenges of managing records and associated ICT in Arusha City Council,
6. Propose for the best way of utilizing ICT's in the management of records at Arusha City Council.

The study sought to answer the following research questions

1. What are the policies and procedures in regards with the use and management of records in public organisations?
2. To what extent does the ACC utilizing ICT's like computers in supporting the management of their records?
3. What are the challenges facing ACC with regard to the usage of ICT's?
4. What are the ways forward to increase the use of ICT's for efficient and effective performance of the ACC?

Data for the study was collected through questionnaires, interviews, personal observations and documentary review. The findings are organized under the research objectives.

5.2 Discussion on findings

This section gives a discussion on the findings of the study. The section is divided into sub-sections that cover all objectives under which the study sought to determine as discussed hereunder

Finding on the policies and procedures in regards with the use and management of e-records in public organisations

It is anticipated that the policy would set out a framework within which public records and archives of the United Republic of Tanzania could be managed in accordance with statutory requirements and international standards.

The policy would take account of the new formats and media in which government records were created and stored. Though the focus of the policy would be on central and local government records, it would also aim to promote a culture in which all records that documented the life and development of the nation, including those of private sector organisations and individuals, were valued as a part of the nation's archival heritage.

According to ISO 15489-1 (2001), organizations should define and document a policy for e-records management. The objective of the policy should be the creation of authentic, reliable and useable of digital records, capable of supporting business functions and activities for as long as they are required. Organizations should insure that the policy is communicated and implemented at all levels in the organization.

Therefore, the first objective of this study was to examine the working policies and procedures in regards with the usage and management of records in public organisations at ACC. The findings of the study reveals that in the past ACC made an attempt to have e-record management policy but failed, recently ACC lacks the policies and procedures for managing its e-record from the creation to

their final disposition. This was evidenced by the majority of the respondents who indicated that there was no policy for e-records management at ACC.

Finding on the extent ACC utilizing ICT's like computers in supporting the management of their records

One of the objectives of this study was to determine the extent to which ACC is utilizing ICT's like computers in supporting the management of their records. To answer this research question, questionnaires were distributed to IT officer, records officers and interview held separately with another record manager.

The results of the questionnaire and the interview conducted showed that, respondents use computers basically for e-mail and typing of documents and sending of correspondences. But, whatever information is sent or received via email remains with individuals who are at liberty to delete or save the emails in their personal computers.

These findings demonstrate a lack of awareness that e-mail constitutes official electronic records and that e-mail that is generated during the course of business is not being captured in the official records system.

Finding on the challenges facing ACC with regard to the usage of ICT's in the management of their records

Findings based on the challenges facing ACC with regard to the usage of ICT's in the management of their records, the study indicated that ACC continued to rely on paper records for the conduct of their business. Although computers and computerised systems were being introduced throughout the council, public servants would probably continue to depend on mixed paper and electronic records for many years to come.

For example, the paper personnel files would continue to provide the authentic and legally verifiable evidence of key HR actions. At the same time that computerised systems were being planned and implemented, ongoing improvements were needed in electronic record-keeping systems in central and local government.

Inline with the above findings, Tanzania's Public Service Reform Programme (PRSP) Phase II recognised the opportunities and challenges presented by information and communication technology (ICT).

PSRP activity had focussed initially on promulgating the national e- government strategy interventions likely to be included were developing capacity, building infrastructure, providing official information through websites and creating a legal framework of cyber laws with regulations and standards. Key enablers to support e-government included privacy, security, transparency, interoperability, records management and preservation of information.

Finding on the ways forward to increase the usage of ICT's for efficient and effective records management at ACC

The last objective of the study was to examine the way forward to increase the usage of ICT's for efficient and effective records management at ACC. The study reveals that, in almost all registries there are no computers used for records management purposes. Likewise, the IT department is not involved in managing paper-based records and there is no linkage between IT department and council registries.

The IT department hardly provides technical advice to ensure that all ACC information created in computers by individual officers remains accessible at all times. Such a situation demonstrates that the council has not established a programme to capture electronic records and does not recognize that e-records also constitute ACC records.

Moreover, this study showed that, there is general lack of awareness amongst staff regarding the importance of e-records management. Instead e-records management responsibilities tend to end with individual officers.

Presently, official e-mails are saved in the individuals in-boxes and could be deleted any time by the inbox owner. Due to lack of official policy on managing e-mails, there is the possibility that records worthy of permanent preservation are being destroyed and thus there is a possibility that the council is losing part of its corporate memory.

The study further revealed that ACC is not even aware of the Tanzania Registry Procedure Manual (2007) which was developed following the passage of the Records and Archives Management Act of 2002.

The Manual recognizes e-mails sent or received through government computers as official public records just like paper correspondences and must be managed as such. The Manual directs any action officer who sends messages as part of his/her functional responsibility to create electronic folders with which to maintain e-mails of different subjects. The action officer is also urged to print a copy and file it in an appropriate file.

5.3 Summary

Thus the study revealed that e- records management at ACC do not adhere to standards and procedures as required by law. Consequently ACC lacks basic e-records management requirements such as policies, standards, procedures as well as adequate number of qualified e-records management staff.

As a result of the study, it is revealed that, the current practices of managing public records through the use of ICT's do not guarantee the security of e-records for as long as they are required.

Consequently, the e-records preservation at the council is very poor in such a way that active, semi-active and non-active e-records are not controlled. Immediate steps including the development of e-records and e-archives management policies and the development of effective records management system are required to rescue the deteriorating e-records that document the council's history and of the nation at large.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter present the conclusions, recommendations and possible future research on the usage of Information Communication Technologies in the management of public records at ACC.

6.2 Conclusion

This study has demonstrated that in the past ACC has not undertaken any records management integration with ICT's. The findings of this study suggest the need to perform regular e-records management training if ACC is to benefit fully from the usage of ICT's infrastructures in the management of their records.
Moreover, with the ever changing ICT technologies which are now driving information management initiatives, there is a need for ACC to benchmark its e-records management programme with other well established e-records management programmes for local councils in the region.
This can possibly be done through links, staffs exchange programmes or other methods which allow for the exchange of ideas and knowledge between ACC electronic records personnel and professionals elsewhere.

6.3 Recommendation

The findings indicate that the current management of digital records at the Arusha City Council is very poor and does not effectively adhere to the rules and regulations concerning the management of e-records.

This study recommends that ACC observes and adheres to the Records and Archives Management Department (RAMD) Act of 2002, the Registry Procedure Manual which was produced by RAMD is a good reference for effective e-records management across all public offices in Tanzania.

In addition, ACC staff should adhere to the Code of Ethics and Conduct for Public Service in Tanzania by not disclosing any ACC information obtained in the course of business transactions to unauthorized parties without permission.

According to ISO 15489-1 (2001), organizations should define and document a policy for e-records management. The objective of the policy should be the creation of authentic, reliable and useable of digital records, capable of supporting business functions and activities for as long as they are required. Organizations should insure that the policy is communicated and implemented at all levels in the organization.

The findings indicate that ACC lacks the policies and procedures for managing its e-record from the creation to their final disposition. Based on the findings, this study recommends that the ACC develops and implements an e- records and archives management policy.

The policy is crucial as it will serve as a guide for the development and implementation of a e-records management programme that will ensure the creation and maintenance of authentic, reliable, complete and useable e-records, capable of supporting business functions and activities for as long as they are needed.

As it was recommended by Tshotlo (2009), the policy statement for an organization should clearly state the following:

(i) Purpose – this statement should define the aims of the policy.

(ii) Policy Statement – this statement should outline the organisational commitment.

(iii) Scope – this statement should identify and define who and what the policy applies to.

(iv) Policy Context – this statement should detail how the policy will relate to existing information or knowledge management structures and programmes.

(v) Legislation and Standards – this statement should identify the regulatory environment that affects e-recordkeeping in the organisation.

(vi) Electronic Recordkeeping Systems – this statement should identify the approved e-recordkeeping systems in the organisation, and the processes that they undertake.

(vii) Responsibilities – the policy should assign e-recordkeeping responsibilities to individuals, positions or areas within the organisation.

(viii) Access – this statement should identify regulations for accessing council's records approved by the highest organ of the Council. The regulations should be reviewed regularly.

(ix) Monitoring and Review – this statement should set a date for review, and should broadly outline monitoring and review procedures.

Bearing in mind the failure of the past efforts to formulate an e-records management policy, the study recommends ACC to outsource experts in the field of e-records management to design and formulate a Council E-records and Archives Management Policy.

Based on the findings the extent to which ACC is utilizing ICT's infrastructures like computers in supporting the management of their records, the study recommends that ACC develops and implements an e-records management programme to guide in the creation, use, maintenance and disposal of e-records. The study indicated that ACC staffs use computer in typing and sending e-mail though official emails are saved in the personal in-boxes and could be deleted any time by the inbox owner.

Due to lack of official policy on managing e-mails, there is the possibility that records worthy of permanent preservation are being destroyed and thus there is a possibility that the ACC is losing part of its corporate memory.

Cain and Millar (2004), note that computerized systems offer significant advantages over conventional methods in that they can manipulate large amounts of information and offer speed, precision, diversity and flexibility.

The study further recommends that ACC equips both records management personnel and officers with adequate training in IT to enable them to develop an effective integrated e-records management system.

The International Labour Organization ILO (1998) notes that changes in technology often imply that new skills are needed because even if the equipment is made available, insufficient staff training can hamper its effectiveness. IT officers have to provide consistent advice on ensuring that information created in computers remains accessible at all times.

Furthermore, this study recommends that ACC develops and implements an e-records retention and disposal schedule to ensure systematic disposition of e-records. It is also recommended that ACC develops an institutional repository for e-records to be managed by well qualified IT personnel with a view to retaining ACC-born digital records.

Findings based on the challenges ACC facing with regard to the usage of ICT's in the management of their records, the study recommends ACC to ensure the e-government to become a reality, there are policies, standards and best practices in place to manage electronic records that ACC has to promote and implement.

To build on the commendable achievements of the e-records management programme to date, ACC needed to develop its capacity in electronic records management. Most of the training in electronic records management received by ACC senior staff took place during their professional studies and had had direct experience of managing electronic records.

Therefore the study recommends both on-time training initiatives and ongoing training programmes to ensure the e-record system is well used and effectively maintained. The training should be pitched at three levels, senior managers;

those responsible for corporate strategy and policy, other users of e-records including line managers and records liaison staff.

Furthermore, the study recommends ACC records staff to be directly involved in the design and development of councils ICT policies so as to include systems that have records management dimension required for e-record keeping requirements.

The findings on the ways forward to increase the usage of ICT's for efficient and effective records management.

The study recommends, ACC to undertake a situation analysis of electronic records management across the council and to facilitate planning for a comprehensive e-records management programme.

The situation analysis report (the 'McDonald Report') identified a number of strategies, building on the success of the e-records management improvement project. The report recommended that the government should develop standards and practices for the management of electronic records and integrate these into existing standards and practices for paper based records.

These standards and practices should be directed to those using personal computers to manage email and electronic documents. Subsequent guidance should be directed to the management of email and electronic documents in a client-server environment and, over time, in an environment where the entire organization is connected and the need for a corporate approach to electronic document management becomes paramount.

Furthermore, the McDonald report provided a solid framework within which government through council's like ACC could plan its interventions, particularly in relation to the transition to computerised business processes, within the wider context of the Public Service Reform Programme. Key targets of the draft medium term strategy for PSRP II were:

E-government infrastructure in place and linking up all MDAs and LGAs by 2012

ICT legal framework and standards developed and adhered to in all MDAs by 2012

MDAs implement capacity development packages to support e-government by 2012 (all MDAs/LGAs will be facilitated to create their own MIS strategies; in addition, PSRP will facilitate the implementation of core application systems on the e-government network infrastructure (including Groupware, HCMIS, e-Records Management)

Computerised applications developed to support service delivery used in 67 MDAs by 2012 (MDA's will prepare user requirements for developing computerised applications …. PO-PSM will coordinate application design and deployment across Government)

6.4 Summary

This chapter has drawn conclusions and made recommendations on the integration of ICT's and public records management toward e-government implementation in Tanzania, a case study of Arusha City Council.

The chapter has concluded that ACC poorly manages its e-records from their creation to final disposition. It particularly concluded, among other things that: ACC has no policy for e-records management, it currently has neither an e-record repository centre for its semi-active electronic records, nor has it an e-archive for non-active e-records.

Moreover, the council is equipped with inadequate technical staff on e-records and there is inadequate training for them. Low awareness on IT issues by many of its staff especially those dealing with e-records, is also a problem facing ACC especially in this era of Information Communication Technologies (ICT's).

The study has therefore given recommendations accordingly together with suggestions that would help the council to improve the usage of ICT's to manage public records hence eliminating delays in the flow of information, increase organizational productivity, simplify electronic record keeping procedures etc.

CHAPTER SEVEN

7.0 CRITICAL EVALUATION

This chapter explains the critical evaluation of the study. The chapter discusses the review of the main tasks undertaken during the research and the challenges encountered during the research project.

Furthermore, the chapter introduces the way forward to overcome those downsides of the research project. Lastly the chapter proposed areas for future study in relation to the alignment of the ICT's and public records management.

7.1 A review of the research project

The data collection for this dissertation started on the 08th of July 2011 and was expected to last for two weeks that is ten working days. However, due to the tight schedules of records staff, council's director and human resource manager, data collection was extended until 27th July 2011which was fifteen days. Refer the schedule for dissertation as shown in the Gant chart (appendix C.)

The study was able to elicit information from respondents and answer the following research questions posed on introduction

a) What are the policies and procedures in regards with the use and management of e-records in public organisations?

Through analysis of questionnaires and interview, the policies and procedures in regards with the use and management of e-records in public organizations were exposed. This has been done in section 5.2.1 in chapter 5.

b) To what extent does the ACC utilizing ICT's like computers in supporting the management of their records?

Responding to the extent the ACC utilizing ICT's like computers in supporting the management of their records, participants elaborated various ways they use computers in their day to day transactions as analysed in section 5.2.2 in chapter 5.

c) What are the challenges facing ACC with regard to the usage of ICT's?

Challenges facing ACC with regard to the use of ICT's were analysed from the information elicited from participants and the discussion of findings done in section 5.2.3 in chapter 5.

d) What are the ways forward to increase the use of ICT's for efficient and effective performance of the ACC?

With regard to the last question, section 5.2.4 in chapter 5 has discussed the ways forward to increase the use of ICT's for efficient and effective performance of the ACC. Various strategies were analysed and recommended.

However, there were few challenges associated with this study; these are discussed in the following section.

7.2 Constraints of the study

In particular there are several challenges a researcher experienced during dissertation writing, some of the problems encountered includes;

7.2.1 Data collection

Collecting data entails scores of activities, each of which must be carefully planned and controlled. During data collection, the researcher experienced challenges such as negative attitudes from some targeted groups and, difficulty in meeting some government officials due to their tight schedules.

7.2.2 Slowness of the respondents

Insipite of the negative attitudes from some of the respondents and difficult in meeting some government officials, others agreed to fill the questionnaires but they were very slow and sometimes demanded the presence of researcher to fill the questionnaires, of which it was too time consuming.

But, despite these challenges sufficient data was collected which portrays a proper picture of the management of public records with regard to ICT infrastructures at the ACC headquarters, Tanzania.

7.2.3 Time

Furthermore the time for writing a research proposal, data collection and report writing was too short. Due to this fact there was no time for pilot study i.e. testing for questionnaires and interviews to a sample of the kind of individuals that will be required to respond to the final data collection, hence resulted to the following weaknesses;

- Ambiguities in the phrasing of questions
- Excessive complexity in the language that has been used
- Inappropriate response category for some questions
- Some questions were redundant

7.2.4 Unstable power supply

Tanzania Electric Supply Company was a very big problem when writing this dissertation. Irregular power cut offs during the day time and night made the report writing to be very cumbersome and tedious work.

7.3 Response to the constraints of the study

In the course of conducting this study, it became apparent that there are some issues that need addressing in order to improve results. Some of these areas include:

- Time; it was very difficult but finally it became possible writing a proposal and a thesis report within a duration of three months. Therefore the time for research should be extended at least six months including data collection.

- As stated above, also there is a need for pilot study to questionnaires as a researcher faced a problem when eliciting information some of the questions were not clear or repeated.
- Interviews seem to provide rich information as compared to other tools such as questionnaires. Therefore time for conducting interviews should be extended too.
- Financial constraints; budget for conducting a research was not enough as it was not included living expenses like lunch and transport, see (appendix D) research budget.
- Sample size was too small to depict the true picture of the public records management with regard to ICT's infrastructures, so there is a need to increase sample size in the future study.

7.4 Areas for future research

In particular, the study focused on the integration of ICT's and public records management towards the implementation of e- government in Tanzania at the Arusha City Council.

As the study focused only at the ACC headquarters, the study has just provided the light for other researchers to come in. More studies of similar nature may be conducted to other councils and municipals in Tanzania so as to have a clear picture of the existing situations pertaining to the management of electronic records in government sectors.

Moreover, similar study should be conducted on the implementation of e-records management at public sectors, exploring more opportunities on usage of ICT's in managing public records for efficient and effective management of its information.

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APPENDICES

APPENDIX A: INTRODUCTORY LETTER

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IAA/DS/3 22 August, 2011

Human Resources Manager
Arusha City Council
P.O. Box 3013
ARUSHA

Dear Sir/Madam,

RE: RESEARCH DATA COLLECTION FOR MR. KAYUMBE ERASTO JOHN

Reference is made to the above named person.

Mr. Kayumbe Erasto is our student pursuing Masters Programme in Information Technology Management.

As part of practical and research experience, Mr. Kayumbe Erasto is collecting data on his research titled **"AN ASSESSMENT ON THE USAGE OF ICT'S IN MANAGING PUBLIC RECORDS FOR E-GOVERNANCE IMPLEMENTATION IN TANZANIA. A CASE OF ARUSHA CITY COUNCIL".**

In this respect we are kindly requesting you to accept Mr. Kayumbe Erasto and provide him with necessary data for his research. The Institute wishes to express in advance sincere appreciation for the assistance you will extend to Mr. Kayumbe Erasto in this regard.

We look forward to your continued support and assistance.

Yours faithfully,

INSTITUTE OF ACCOUNTANCY ARUSHA

B.A. Mashaka
FOR: AG: RECTOR

INSTITUTE OF ACCOUNTANCY ARUSHA (IAA) TANZANIA

APPENDIX B: PERMIT TO CONDUCT A RESEARCH

ARUSHA CITY COUNCIL

(All correspondence to be addressed to the City Director)

Tel: 2508073/2503494
All Office: 2544330
Fax: 2505013

E-mail: arushamunico@yahoo.com
Website:www.arushamunicipal.go.tz

Council Hall,
P.O. Box. 3013,
ARUSHA

13/09/2011

Institute of Accountancy Arusha,
P.o. Box 2798,
Arusha.

RE: RESEARCH AND DATA COLLECTION IN FAVOUR OF MR. KAYUMBE ERASTO JOHN.

Reference above is made to your letter dated 23/08/2011 with reference No. IAA/DS/3 concerning to the above heading.

I would like to inform you that permission is grated to the above mentioned student to conduct his research data collection as from 25th July 2011 to 19th August 2011.

With regards,

G.I.S. Mawalla,
For: MUNICIPAL DIRECTOR ARUSHA
for Municipal Director
Arusha Municipal Council

cc. Human Resource Manager,
Arusha City Council,
Arusha.

Head of Departments.

APPENDIX C: RESEARCH SCHEDULLE

APPENDIX D: RESEARCH BUDGET

ACTIVITIES	MAN DAYS COSTS		
A1: Data Collection	Principal Researcher	Asst. Researchers	Costs.
Organization visit payments – with one asst. researcher for five days visits organization: Tshs. 40,000/- per day	-	1	200,000/-
Sub Total A1:	**-**	**1**	**200,000/-**
A2:Data Processing & Analysis			
Data Entry – assistant researcher is paid Tshs. 30,000/- per day for five days	-	1	150,000/-
Sub Total A2:	**1**	**2**	**150,000/-**
B: Dissertation costs	**Unit**	**Unit Price**	**Total**
Cases questionnaires production	10 batches	7000/-	70,000/-
Case and research organizations literature reviews	1	25,000	25,000/-
Mobile communications costs for arranging, conducting and research cases for three months	3	30,000/-	90,000/-
Mobile Broadband usages for case study researches and			

electronic communications with his/her Research facilitator per three months: 8GB usage-Tshs. 70,000/- per month	3	70,000/-	210,000/-
Stationeries – reports, diagrams, and colour printing.			50,000/-
Flash Discs	1	35,000/-	50,000/-
DVDs	3	2,000/-	6,000/-
Dissertation Drafts & Final reports productions	4	50,000/-	200,000/-
Sub Total B:	`		**651,000/-**
TOTAL			**1001,000/-**

APPENDIX E: QUESTIONNAIRE FOR HEADS OF DEPARTMENTS/UNITS

Dear respondent.

This questionnaire consists of statements and questions pertaining to **the integration of ICT's and Public Records Management, towards e-government Implementation in Tanzania, A case of Arusha City Council.**

Please complete each item as per the guidance given. The information collected is purely meant for academic research and will be treated as confidential. Kindly fill out this questionnaire as frankly as possible. All responses supplied will be used only for research purposes.

Thank you

_____

Erasto J. Kayumbe Cell: +255 713389969

E-mail address: kayumbe@yahoo.co.uk

Section A: Demographic data

1. Department/Division: .....

2. Designation.....

3. Highest level of education:

Bachelor's degree [ ] in.....

Master's degree [ ] in.....

Doctor degree [ ] in.....

Others (please specify).....

4. How long have you been in this post / department?

.....

Section B: Awareness on polices, procedures, standard and tools of e-records management at ACC

i. ERM Policies

5. Does ACC have a policy on e-records managements?

1. Yes [ ] 2. No [ ] 3. No idea [ ]

6. If Yes to question (5) above, when was the policy formulated?

1. More than 5 years ago[ ] 2. More than 10 years ago [ ]

3. No idea [ ] 3. Others (Specify).....

7. Does the policy specify the authority and responsibilities of records officers?

. Yes [ ] 2. No [ ] 3. Not sure [ ] 4. No idea [ ]

ii. Creation and capture of e-records

8. What are the main types of records created and maintained by your division at ACC?

1. Administrative records [ ] 2. Financial records [ ]

3. Personnel records [ ] 3.Supplies records [ ]

4. Legal records [ ] 5.Medical records [ ]

5. Any other,(please specify).....

9. Do you consider e-records as an organizational resource?

1. Yes [ ] 2. Somehow [ ] 3. No[ ]

10. What are the formats in which the records mentioned in (8) are created and stored? (Please indicate)

1. Electronic [ ] 2. Paper based [ ]

3. Hybrid (both paper based and electronic) [ ]

11. Who manages e-records in your organisation?

1. Records officer at the department [ ]

2. ICT staff [ ]

3. Records manager [ ] 4. Shared responsibility [ ]

12. Are you aware of the existence of any departmental/division regulations on the creation, maintenance, use, and protection of official e-records?

1. Yes [ ] 2. No [ ] 3. No idea [ ]

13. Are you satisfied with the information services provided by records staff in your department?

1.Yes [ ] 2. Somehow [ ] 3. Not satisfied [ ]

iii. Retrieval of e-records tracking

14. On average how long does it take to get a file from the time you requested for it to the time when it is delivered to you?

1. 0-15 mins [ ] 2. 15-30 mins [ ]

3. 30 mins-1hour [ ] 4. 1 day- 2 days [ ]

5. Others (Specify).....

15. Does ACC provide adequate facilities to ensure security of e- records?

1. Yes [ ] 2. No [ ] 3. Not sure [] 4. No idea [ ]

16. Does your department have e- records classified as TOP SECRET, SECRET or CONFIDENTIAL?

1. Yes [ ] 2. No [ ] 3. Not sure [ ] 4. No idea [ ]

iv. Retention and disposal of e-records

17. Is there any storage facility for semi-current and non-current e- records?

1. Yes [ ] 2. No [ ] 3. Not sure [ ] 4. No idea[ ]

18. Are there any special procedures for disposing e- records at ACC?

1. Yes [ ] 2. No [ ] 3. Not sure [ ] 4. No idea[ ]

19. Does ACC have any archival service to preserve its e-records of continuing value?

1. Yes [ ] 2. No [ ] 3. Not sure [ ] 4. No idea[ ]

20. If No, to question (19) above, is the ACC considering establishing its own e-archives in the future?

1. Yes [ ] 2. No [ ] 3. Not sure [ ] 4. No idea [ ]

Section C: Challenges towards the management of e- records

21. What specific problems have you faced relating to e- records management at ACC? (Please tick from the following)

1. Huge documents [ ] 2. Duplication of records [ ]

3. Misfiling [ ] 4. Inadequate control of records [ ]

5. Delay in processing files [] 6. Excessive time in retrieval [ ]

7. Mixture of different subjects in one file [ ]

8. Others (specify).....

22. What suggestions would you like to make in order to improve the management of e-records at ACC? Please use the space provided.

.....

.....

.....

.....

Thank you very much for taking your potential time answering this questionnaire.

APPENDIX F: QUESTIONNAIRE TO BE COMPLETED BY RECORDS PERSONNEL

Dear respondent.

This questionnaire consists of statements and questions pertaining to **the integration of ICT's and Public Records Management, towards e-government Implementation in Tanzania, A case of Arusha City Council.**

Please complete each item as per the guidance given. The information collected is purely meant for academic research and will be treated as confidential. Kindly fill out this questionnaire as frankly as possible. All responses supplied will be used only for research purposes.

Thank you

_____

Erasto J. Kayumbe Cell: +255 713389969

E-mail address: kayumbe@yahoo.co.uk

INSTRUCTIONS

Please tick your answers in the boxes provided and provide any additional information on the spaces provided. If the space provided is not adequate, please use a separate sheet of paper.

Section A: Demographic information

1. Department/Division .....
2. Position .....
3. Highest level of education
   - [ ] Diploma in .....
   - [ ] Certificate in .....
   - [ ] Form six
   - [ ] Form four

[ ] Standard seven

[ ] Others (please specify)

4. How long have you been in this records management unit (registry)?
   1. 0-3yrs[ ] 2. 3-6yrs[ ] 3. 6-9yrs[ ]4. Other[ ] indicate

5. What were your entry qualifications into the job
   1. Form six [ ] 2. Form four [ ] 3. Other[ ] indicate

6. Do you use computers in your records keeping practices?
   1. Yes [ ] 2. No [ ] 3. Not idea [ ]

7. If Yes, how?
   .....
   .....
   .....

8. Do you have any formal training in e-records management?
   1. Yes [ ] 2. No [ ] 3. Yet to proceed [ ]

Section B: Awareness on policies, procedures, standards and tools of e-records Management at the ACC

i. Organization of e-records

9. What are the main record that you handle in your registry
   1. Electronic records [ ] 2. Paper based records [ ]
   3. Hybrid (both e-records and paper records [ ]

10. Is there any documentation that shows all e-records created and received in your registry?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]

11. What kind of classification system (grouping method) is used in arranging e-records?
    1. Keyword [ ] 2. Alphabetical [ ] 3. Subject[ ]

4. Numerical [ ] 5. Alpha/numeric [ ] 6. Others [ ] (Specify).....

12. Considering the ease or difficulty of retrieving e-records, will you say the above file classification system is adequate or not?
    1. Adequate [ ] 2. Inadequate [ ] 3. No idea [ ]

13. Do you have a file index for e-records created in your registry/office?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]

ii. Access to e-records

14. Does your registry have written guidelines on access restrictions to the unit's/departmental e-records?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]
15. Does the ACC provide any facilities to ensure the security control of e-records?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]
16. Do you encounter any problems in locating and retrieving e-records?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]
17. If Yes, to the question above what are these problems .....
    .....
    .....
18. How long on average does it take you to retrieve an e-record/file?
    1. 2-5 mins [] 2. 6-10 mins [ ] 3. 30 mins-1hour [ ]
    4. 1hour-12hours [ ] 5. One day-two days [ ]
    6. Others [ ] specify.....
19. Are there any procedures for controlling e-file movements?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]
20. If Yes, what procedures does your registry use?
    1. Bar coding [ ]2. Record management software system [ ]
    3. Movements cards [ ] 4. Transfer slips [ ] 5. File movement index [ ] 6. Any other [ ]

specify .....

iii. Retention of e-records

21. In your daily discharge of duties, do you ever manage official e-mails?
    1. Yes [ ] 2. No [ ] 3. Not idea [ ]
22. If Yes, to (21) above, how do you preserve official e-mails?
    1. Print and file [ ] 2. Save in my inbox [ ] 3. Save in the saver [ ]
    4. Auto archive on PC [ ] 5. Delete when mail box is full [ ]
    6. Other [ ] specify .....
23. Are there any procedures in place for managing semi-current and non-current e-records?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]
24. Where are your semi-current and non-current e-records stored?
    .....
    .....
    .....
25. Do you have any stated procedures for transferring closed e-records to the storage area?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]
26. If Yes, to the question above, what procedures do you follow in transferring closed e-records to the storage area?
    .....
    .....
    .....
27. Do you have any index or list of the closed e-records?
    1. Yes [ ] 2. No [ ] 3. No idea[ ]

iv. Security and disaster preparedness

28. Does the ACC have a vital e-records management program?

1. Yes [ ] 2. No [ ] 3. No idea[ ]

29. If Yes, where are the vital e-records preserved?
    1. Mail box [ ] 2. In saver [ ] 3.In computer hard disk [ ] 4. Off-site storage [ ] 6. Any other [ ]Specify.....
30. What procedures and techniques are there for e-records disaster preparedness plan at ACC?
    .....
    .....
    .....

Section C: Challenges towards ERM

31. Do you face any challenges/problems in the daily discharge of your duties as records personnel?
    1. Yes [ ] 2. No [ ] 3. Not idea [ ]
32. If Yes, what are these problems?
    .....
    .....
    .....
33. What suggestions would you like to make in order to improve digital records management at ACC? Please use the space provided.
    .....
    .....
    .....

Thank you very much for taking time to answer this questionnaire

APPENDIX G: A QUESTIONNAIRE FOR IT STAFFS

Dear respondent.

This questionnaire consists of statements and questions pertaining to **the integration of ICT's and Public Records Management, towards e-government Implementation in Tanzania, A case of Arusha City Council.**

Please complete each item as per the guidance given. The information collected is purely meant for academic research and will be treated as confidential. Kindly fill out this questionnaire as frankly as possible. All responses supplied will be used only for research purposes.

Thank you

_____

Erasto J. Kayumbe Cell: +255 713389969

E-mail address: kayumbe@yahoo.co.uk

Section A: Demographic information

1. To be filled by IT specialist
    1. Unit.....
    2. Designation.....
2. What is your level of training/qualification in computer/IT
    1. Masters in Computer Science / IT / Information systems[ ]
    2. B. Sc. in Computer Science / IT / Information systems[ ]
    3. Diploma in Computer Science / IT / Information systems[ ]
    4. Certificate in Computer Science / IT / Information system[ ]
    5. Any other [ ] (please specify).....

Section B: Functions and responsibilities

3. How long have you been working in this department?

   [ ] 0-5 years [ ] 6-10 years [ ] 11-15 years [ ] 20 years and above

4. What are the key functions/ mandate of your department?

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

5. What are your main duties/responsibilities

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

6. Who manages records in your department/ unit

   [ ] record officer [ ] secretary [ ] clerical officers

   [ ] IT manager [ ] others (specify).....

7. What IT service do you provide to the City Council's registries?

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

8. Do you have a central coordinating role for electronic records at the City Council?

   [ ] Yes [ ] No

9. How do you relate with records management staff as far as management of electronic records is concerned?

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

Section C: level of computerization at ACC

10. When was the use of computers introduced at ACC?

    [ ] 1980's [ ] 1990's [ ] 2000's [ ] found computers in use [ ] i don't know

11. How do you manage official e-mail messages?

    [ ] Print and file [ ] Save in saver

    [ ] Auto archive in PC [ ] Delete when mailbox is full

12. How do you manage electronic records generated in different departments?

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

13. Are you aware of any ACC initiatives for electronic records management?

    [ ] Yes [ ] No

14. If Yes (from above) please specify

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

Section D: Infrastructure supporting e- records

15. Is there any organizational ICT policy for ACC? [ ] Yes [ ] No
16. What forms of electronic records are generated and / or received in your department / unit?

    [ ] Operational documents [ ] E-mail documents [ ] Policy documents [ ] Any other (please specify).....

17. What business functions have been automated and to what extent in your department / unit?

S/N	CATEGORY	DEGREE OF AUTOMATION				
		1	2	3	4	5
1	Payroll systems					
2	File Tracking systems					
3	Procurement systems					
4	HRM systems					

Any other (please specify)

.....

.....

.....

.....

18. How do you ensure the integrity of systems that generate electronic records in your department / unit?

    [ ] firewall i.e. prevention from external intrusions

    [ ] antivirus software

    [ ] secured network

    [ ] any other (please specify)

19. What measures are in place to ensure security of electronic records at ACC?

    1. Password [ ]

2. Audit Trail [ ]
3. Encryption / Decryption of records [ ]
4. Backup / recovery measures [ ]
5. Disaster Preparedness / recovery measures [ ]
6. Firewalls [ ]
7. Migration of records [ ]
8. Any other (please specify)

   .....

Section E: status or e-records at ACC

20. How are you involved in the management of paper-based records at ACC?

    [ ] Directly [ ] Indirectly [ ] Not involved at all

21. How are you involved in the management of electronic records at ACC?

    [ ] Directly [ ] Indirectly [ ] Not involved at all

22. What are the challenges of managing electronic records?

    1. Inadequate technical staff [ ]
    2. Inadequate funding to purchase enough computers and its accessories
    3. Lack of relevant training [ ]
    4. 4 Poor communication between users and IT officers [ ]
    5. 5 Security [ ]
    6. 6 Technology obsolescence [ ]
    7. 7 Low awareness on IT issues [ ]
    8. Any other (please specify)

       .....

Thank you very much for taking time to answer this questionnaire

APPENDIX H: INTERVIEW SCHEDULE FOR CITY COUNCIL DIRECTOR AND HUMAN RESOURCE MANAGER

1) Are you aware of the existence of e-records in your department?

2) Where specifically, are e-records of the ACC headquarters housed?

3) Is there any relationship between the Council's manual records and the records born digitally?

4) If the answer is yes to question (3), how do you relate with ACC registries as far as e- records management is concerned?

5) Do you easily get files requested in your department?

6) What does the policy state concerning keeping records electronically in your department?

7) How do you ensure the security of e-records and documents in your department?

8) What are the challenges that you face in your daily duties with regards to e-records?

9) What suggestions can you give to suppress such challenges?

APPENDIX I: INTERVIEW SCHEDULE FOR THE RECORDS MANAGER AT ACC

1) What level of training qualifications do you have in records management?

2) What are your main duties in this office?

3) What can you say about the records office space in the ACC main registry?

4) Do you use computers in your office?

5) How often do you deal with electronic records in your daily discharge of duties?

6) How do you deal with emails and attachments?

7) How do you integrate manual and electronic records systems?

8) What preservation measures are in place to ensure longevity of e-records?

9) Does ACC have a e-records retention schedule?

10) If Yes, to (9) above, when was it compiled? When was it updated?

11) Does ACC ever destroy its non-active e-records?

12) What methods do you use for disposal of e-records?

13) Where does the ACC store its e-archives (old e-records)?.

APPENDIX J: A CHECK LIST FOR PERSONAL OBSERVATIONS OF THE ACC RECORDS MANAGEMENT UNITS.

1. ACCOMMODATION

A. SPACE

1. Number of offices/registries----------

2. Number of record centres ----------

3. Adequacy of registry space YES [ ] NO [ ]

B. TYPES OF FILLING EQUIPMENTS

4. Steel Cabinets YES [ ] NO [ ] Number and quality----------

5.Wooden Shelves YES [ ] NO [ ] Number and quality----------

6. Boxes YES [ ] NO [ ]; Quality----------

7. File covers YES [ ] NO [ ]; Quality----------

8. Others----------

C. CONDITION OF FILING EQUIPMENT/ SECURITY

9. Lock and keys to records offices YES [ ] No [ ] ----------

10. Automated burglary alarm YES [ ] NO [ ] ----------

11. Security guards YES [ ] NO [ ] ----------

12. Fire detectors YES [ ] NO [ ] ----------

13. Fire extinguishers YES [ ] NO [ ] ----------

14. Fire alarms YES [ ] NO [ ] ----------

15. Strong rooms YES [ ] NO [ ] ----------

16. Pests YES [ ] NO [ ] ----------

17. Bookworms YES [ ] NO [ ] ----------

18. Leaking roofs/windows YES [ ] NO [ ] ----------

19. Dusts YES [ ] NO [ ] ----------

2. ENVIRONMENTAL CONDITIONS

20. Ventilation of records rooms/ offices YES [ ] NO [ ] ----------

21. Lightning YES [ ] NO [ ]; Quality ----------

22. Humidifiers YES [ ] NO [ ] ----------

23. Air Conditioning YES [ ] NO [ ] ----------

3. RECORDS STORAGE STUATION Arrangement/volumes of files:

24. Large bulged files YES [ ] NO [ ] ----------

25. Small standard files YES [ ] NO [ ] ----------

26. File cabinets/shelves scattered YES [ ] NO [ ] ----------

27. Records piled up and difficult to retrieve YES [ ] NO [ ] ----------

28. Space/Working tables misused YES [ ] NO [ ] ----------

---

5. OTHER OBSERVATIONS

29. Number of records staff ----------

30. Registries space and layout----------

31. Number of computers----------

32. Internet facilities ----------

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Dr. Mohammad Othman Nassar, Faculty of Computer Science and Informatics, Amman Arab University for Graduate Studies,
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