ASSESSMENT OF RECORDS MANAGEMENT PRACTICES AT RURAL ELECTRIFICATION AUTHORITY, KENYA

By

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DECLARATION

Declaration by Student

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DEDICATION

This Thesis is dedicated to my late parents, Jenita Nafua and Paulo Nambwaya Nashimiyu. Thank you for being my treasured Mother and Father respectively. Rest in peace *Mama and Papa.*

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I would like to thank my supervisors Prof. Justus Wamukoya and Dr. Elsebah Maseh for guiding me up to the completion of this thesis. My sincere thanks also go to all my lecturers whose class work equipped me with relevant knowledge that enabled me to effectively handle this thesis. Last but not least, I thank my wife Mary Eshimuli Mukoyani and my children Claris Nafua Nambwaya, Claude Nambwaya and Cynthia Wate Nambwaya for their moral support during the entire period of this programme.

ABSTRACT

Rural Electrification Authority (REA) is one of the public organizations in Kenya that creates a lot of records in its operations. However, the measures that the Authority has implemented to manage these records have not fully resulted in effective records management. Thus, the aim of the study was to assess the current status of records management at REA with a view to proposing strategies to enhance records management in the Authority. Objectives that guided this study were to: examine records management procedures currently in place at REA; investigate the non-technical records management infrastructure at REA and how it supports the records management function; determine the level of computerization of records at REA and how this has impacted the Authority's effectiveness in service delivery; and propose strategies to enhance records management within REA. The study was guided by integrated records management theory. The research adopted the convergent parallel mixed-methods research approach and a descriptive case survey targeting 139 staff at REA. Yamane's sample size formular was adopted, and using proportionate stratified and simple random sampling techniques, 106 staff members comprising five (5) and thirteen (13) top and middle level management respectively, and eighty-eight (88) staff at the operational level were selected. Questionnaires and interviews were used to collect data from the participants. Data from the questionnaires was analysed in SPSS for Windows Version 21.0 using descriptive statistics and presented in tables. Interview data was thematically analysed and presented in narrative descriptions and verbatim quotes. It was established by slightly over half of operational staff that REA did not have a documented records management procedures manual, and others said they were not aware of it. This was supported by the middle and top level management, who noted that REA did not have such a manual. Slightly over half of these staff indicated that they had skills in records storage, with a few being skilled in records' retrieval, filing, and classification. These staff considered the Authority's support for records management personnel in REA not to be sufficient due to the inadequacy of financial resources, equipment, capacity building support for the staff, the implementation of a scheme of service for records management personnel, and a poor work environment. The majority of these respondents noted that the Authority did not have a records management policy. These findings were corroborated by the middle and top level management, who noted that this had a negative impact on records management at REA. From the middle and top level managers, it was found that although the Authority had partially incorporated computerization or ICTs into its business processes, records management function had not been computerized. Despite this, the operational level staff identified the positive impact that such computerization had on service delivery and effectiveness at REA. Overall, the operational level staff identified the challenges facing records management at REAas high staff turnover, inadequate funding, cooperation and human capital, the absence of supportive policies and procedures. These staff recommended the following strategies to enhance sound records management at REA: adequate funding of records management activities, employment of adequate and competent records management staff, awareness and sensitization programs for records management, application of ICTs, the development and implementatio of supportive policies and procedures in records management. The study concluded that the state of records management in the Authority at the time of the study was not at its optimal level. Consequently, the study proffered recommendations that it is hoped would improve records management as follows: ensure adequate funding of the records management activities; employ enough and competent records management staff; incorporate ICTs in records management processes; develop and implement supportive policies and practices in records management.

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ABBREVIATIONS AND ACRONYMS

AS	Australian Standard
CMC	Content Management System
DIS	Document Imaging Systems
DRMS	Digital Records Management System
DRs	Digital Repositories
EDMS	Electronic Document Management Systems
EDRMS	Electronic Document and Records Management Systems
ESARBICA	Eastern and Southern Africa Branch of the International Council of Archives
FOI	Freedom of Information
ICT	Information Communication Technology
IEC	International Electrotechnical Commission
IRMS	Integrated Records Management System
IRMT	International Records Management Trust
IS	Information Sciences/International System
ISMS	Information Security Management Systems
ISO	International Organization for Standardization
IT	Information Technology
KNADS	Kenya National Archives and Documentation Services
KRIS	Knowledge Repository Information System
MCAs	Ministries, Counties and Agencies
MDAs	Ministries, Departments and Agencies
MMR	Mixed Methods Research
MRSC	Municipal Research and Services Center
PDF	Portable Document Format
PPRA	Public Procurement and Regulatory Authority
PSC	Public Service Commission
REA	Rural Electrification Authority
RIM	Records and Information Management
RM	Records Management
SPSS	Statistical Package for the Social Sciences
TRIM	Total Records and Information Management

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter discusses the background to the study, statement of the problem, research objectives and questions. It also focuses on the assumptions, significance, scope and limitations of the study.

1.2 Background to the Study

For any organization to function effectively and carry on with its mandate, there must be records. Indeed, records are synonymous with every human activity. All organizations, whether public or private, rely on records in their daily operations (Obely, 2015). Records are, therefore, the corporate memory of organizations and they support their daily business undertakings, facilitate decision-making, and policy formulation. Further, they are in themselves a part of organizations' endeavour to carry out their business (Mtshali & Africa, 2016).

Records have existed since the creation of man. Since the development of writing, ways have also been developed to store and access written words. Today, more records are written or created than ever before in the history of man. Businesses generate and receive thousands of new records as they conduct their business activities (Obely, 2015). Though the form of recordkeeping has changed as man has evolved, the principles of records management are themselves developing. The definition of a record is provided in the International Standard on Records Management ISO 15489-1:2016 as information created, received and maintained as evidence and information by an organization or person, in pursuance of legal obligations or the transaction of business. According to Tagbotor, Adzido, and

Agbanu (2016), records management is the discipline of applying well-established techniques and procedures to control those sources of information, which arise internally within an organization as a result of its activities.

Institutions or organizations must establish policies and procedures to ensure that records, irrespective of their formats and documentation are retained and made accessible as long as they are needed. Tracking, filing, distributing, formatting and accessing these records is a huge but vital task as the flow of these documents is the lifeblood of any business (Marwa, 2015). Institutions or organizations are required to include records management objectives, responsibilities, and authorities in pertinent agency directives, or rules, as applicable. Institutions or organizations can begin to manage their records by incorporating electronic records into any general agency records management policies they may have in place (Tagbotor et al., 2016). They should specify in their records management policies that those policies apply to public records in any formats, including electronic format, and they should ensure that employees are educated regarding these policies.

Records management requirements should be incorporated into organizations' Information, Communication and Technology (ICT) policies (Ndemanyisho, 2014). For instance, the author notes that, if an organization has an electronic mail policy, it should alert users that e-mails as well as other forms of electronic communication relating to agency business are public records and are subject to all public records access, duplication, retention, and legal framework requirements.

A compliant records management programme is necessary for organizations to proactively and progressively manage all data, media and information. As the number of laws and severity of punishment governing records management continues to

increase, it becomes even more paramount that organizations follow best practices for proper records management (Ndemanyisho, 2014). Organizations need to demonstrate "good faith" intentions to follow these best practices consistently and accurately.

One way to address and improve records management in public institutions in Kenya is to fund more records management programmes (Juma, 2013). This funding should be applied towards correcting or maximizing the abilities of the current systems, and establishing records management facilities and practices where they are not currently functioning well (Matasio, 2017). Additionally, Ngoepe, Maluleka, and Onyancha (2014) recommend that this funding be explicitly included within the cadre of development projects. Ngoepe, Maluleka, and Onyancha (2014) further suggest that conditions be placed on loan projects so that the country is unable to get the funding for a project unless there are certain levels of records management in place to make sure the funding is appropriately spent.

An integrated approach can allow for a more holistic view of how records management supports culture, society and government. This might in turn lead to a better-rounded consideration of how records management practices can be addressed and improved (Madulu, 2016). Furthermore, the built-in accountability of this approach may attract further foreign direct investment, which will help the country to develop in the longer term without the perpetual assistance of foreign aid (Zam & Samsudin, 2014).

There needs to be funding for consultants and trained experts to develop appropriate records management strategies, including the establishment of records retention and disposition schedules (Phiri, 2016). Additionally, there needs to be funding to build new and restore old infrastructure. This includes buying and maintaining appropriate

servers to store electronic records, thus investing in that technology to enable efficient, effective and sustainable records management practices (Sundqvist & Svärd, 2016). According to Matangira, Katjiveri-Tjiuoro, and Lukileni (2013),.there also needs to be a heavy investment in staff training and potentially even the education system to produce records management expertise domestically, instead of having students go abroad to learn records management skills. While the World Bank, International Monetary Fund, United Nations and International Records Management Trust are working towards building more appropriate records management systems in Africa, the funds they have allocated towards these projects are simply not sufficient (Njeru, 2018).

The Government of Kenya has embraced e-government services. Thus, there is a need for the government to actively study its transition towards e-government without jumping on board too quickly. This is because it can result into the disenfranchisement of a lot of people in the country that are still on the 'have-not' side of the digital divide (Karaya, 2014). Along with this, governments need to invest adequate resources in building the infrastructure in their countries to connect their citizens to the information superhighway. This should be done while at the same time developing the skills necessary to use computers and the literacy skills necessary to access the information (Mutiso, Odini, & Bosire, 2010).

According to Nashon (2014), records provide information and evidence of the functions carried out in organizations and are thus critical to protecting organizations and their interests during litigation and other legal challenges. Further, they enable organizations conform to accountability requirements, and the prescriptions of all government statutes including access to information. Organizational records are managed through a process known as records management. ISO 15489-1:2016

defines records management as the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.

The management of records includes but is not limited to setting policies guiding records creation and their management and standards mapping processes that are to be applied to various stages of the records life-cycle (ISO 15489-1:2016). These stages relate to records creation, maintenance, use and disposition. The Standard notes that records management involves assigning records management responsibilities among the staff of an organization. ISO 15489-1:2016) further acknowledges that records management covers putting into place records management procedures that would ensure uniformity of processes. It also involves choosing and oversight of records management systems; ensuring that records management is integrated into each business process of organizations.

To assist in the effective creation and general management of records, organizations should institute a records management programme (Marutha, 2016). This programme should be composed of among others, a system that evaluates the business processes an organization carries out and determines the information resulting from each process and ascertaining which of it has to be captured as records (Karimanzira & Mutsagondo, 2015). According to Mwangi (2017), a records management programme should also consider making decisions on the form of records to be created and the appropriate technologies needed to support and enhance their creation. Further, it involves evaluating metadata needed as part of the record and establishing how the

metadata will continue to be linked to the record as long as it is needed for the business process that led to its creation.

A records management system should also be composed of a system for designing retrieval mechanisms for records and ensuring that the records can be shared by business processes without getting lost, being altered or damaged (Karimanzira & Mutsagondo, 2015). Further, there is a need for assessing risks associated with failure to create and maintain appropriate records or failure to retrieve them when they are needed and deciding how records will be preserved over time to enable their availability any time they are needed for the conduct of business (Nafula, 2018). According to Azameti and Adjei (2013), a records management programme should put in place a system for ensuring records are retained for appropriate periods that tally with business processes; seeing to the safe and secure maintenance of records; establishing methodologies for evaluating and monitoring the effectiveness of systems instituted for managing records.

Various studies on records management in various institutions in the public sector have been conducted in Africa. For instance, in the education sector, studies have been conducted in Malawi (Phiri, 2016), Mozambique (Pereira, 2017), and Namibia (Matangira et al., 2013. Other studies in this sector have been conducted in Nigeria (Otu, Bempah, & Amoako-Ohene, 2014), South Africa (Phiri, 2016), Tanzania (Obely, 2015), and Kenya (Karani, 2016; Mutimba, 2014). In the energy sector in Kenya, some studies have focused on the Kenya Electricity Transmission Company Limited (Nashon, 2014) and the Ministry of Energy and Petroleum (Mutiso et al., 2010). From Gambia, Kenya, and Zimbabwe, Chikomba (2018), Njeru, (2018), and Akotia (1996) respectively have focused on records management in the financial

sector. Records management research in the public health sector have been conducted in Botswana (Mampe & Kalusopa, 2013), Nigeria (Alegbeleye & Chilaka, 2019), and South Africa (Marutha, 2016; Katuu 2015).

The results from the foregoing studies in Africa have examined records management practices/programmes in the public sector focusing on among others, records management procedures and infrastructure. Some have established application of ICTs in records management, encompassing electronic records management and its infrastructure. The researchers have also attempted to link records management with service delivery in the public sector. From the challenges identified in records management in the public sector organizations, the studies have recommended various approches that public sector organizations should adopt to improve records management through addressing the infrastructural impediments they face. The foregoing studies are reviewed in Chapter Two of this research. Few studies have focused on the energy sector, more especially those targetting to serve the rural population. This study, therefore sought to assess, the current state of records management at the Rural Electricity Authority in Kenya with a view to proposing strategies to enhance the management of records in the Authority.

1.2.1 Rural Electrification Authority

REA is a state corporation established under section 67 of the Energy Act No. 12 of 2006 to accelerate the pace of rural electrification in order to promote socio-economic development. The functions of the Authority are as follows:

(i) Management of the rural electrification programme fund.

(ii) Development and updating of the rural electrification programme master plan.

(iii) Implementing and sourcing funds for the rural electrification programme.

(iv) Promotion of the use of renewable energy sources including but not limited to small hydros, wind, solar, biomass, geothermal, hybrid systems and oil components considering specific needs of certain areas including the potential for using electricity for irrigation and in support of off-farm income generating activities.

(v) Management of the delineation tendering and award of contracts for licenses and permits for rural electrification.

(vi) Perform any other function as the Board may direct. `

To fulfil its mandate, REA is envisioned to be the energy solutions for better lives; with a mission of providing energy solutions to all, and achieving high standards of customer service through advancing community participation that ensures long-term sustainability and socio-economic development. The records management function at REA is under the Human Resource/Administration Department and it is manual-based with no technical or technological infrastructure in place to support it.

1.2.2 REA's Organizational Structure

REA has seven (7) operational regions: Headquarters region in Nairobi, Mt. Kenya region, Coast region, North Rift region, West Kenya region, Central Rift region, and Northern Kenya region. To achieve its mandate the Authority has an organizational structure in place configured as follows: Board of Directors; Audit Committee; Chief Executive Officer; Authority Secretary; Chief Manager-Corporate Panning; Chief Manager-Construction; Chief Manager-Design; Chief Manager-Renewable Energy; Chief Manager-Internal Audit; Chief-Manager-ICT; Chief Manager-Human Resource/Administration; Chief Manager- Procurement & Supplies; Manager-Communications; Manager-Finance; and Manager-Renewable Energy. This study

focused on the records management under the Human Resource/Administration Department of REA based at the Authority's Headquarters in Nairobi.

1.3 Statement of the Problem

Records and information are one of REA's most important resources. REA, in pursuit of its mission and vision; creates, receives and maintains records which document the functions, activities and transactions carried out by the entire Authority. The Authority's ability to function efficiently and give an account of its actions relies heavily on the application of sound records management practices. The Authority has attempted to put in place some measures for effective records management. Despite this, reports from the Auditor General Office (e.g. 2016, 2017) and the Kenya National Archives and Documentation Service (e.g. 2016, 2017) reiterate the need for the Authority to put in place more effective records management systems, procedures and practices and also implement the same. Without such efforts, the Authority's service delivery and accountability may be negatively affected as records contribute to these.

Established in 2006, REA has been in existence for some considerable time. However, little is known is about the systems, procedures and practices that REA has put in place for effective management of its records. Without such knowledge, it might be challenging to identify areas where improvements are needed for effective records management at REA. This study, therefore, sought to address this gap by assessing records management systems, procedures and practices used by REA, and to propose strategies for enhancing the Authority's management of its records.

1.4 Aim of the Study

The aim of the study was to assess the current state of records management at REA with a view to proposing strategies to enhance the management of records in the Authority.

1.4.1 Objectives of the Study

This study was guided by the following specific objectives which were to:

i. Examine records management procedures currently in place in REA.
ii. Investigate the non-technical records management infrastructure at REA and how it supports the records management function.
iii. Determine the level of computerization of records at REA and how this has impacted the Authority's effectiveness in service delivery.
iv. Propose strategies to enhance sound records management at REA.

1.5 Research Questions

i. What records management procedures are currently in place at REA?
ii. Which non-technical records management infrastructure has been put in place at REA to support the records management function?
iii. What is the level of computerization of records at REA and what has been its impact on service delivery?
iv. How can records management be enhanced at REA?

1.6 Assumptions of the Study

The study was based on the following assumptions:

i. The absence of records management procedures was partly responsible for the poor management of records at REA.

ii. Sound management of records at REA was undermined by the absence of appropriate records management infrastructure.

1.7 Significance of the Study

This study comes up with strategies that seek to promote effective record-keeping at REA. The researcher hopes these strategies will be adopted and implemented. Should this happen, it will go a long way in ensuring that REA becomes more accountable and transparent in its operations and service delivery. REA gets its funding from the exchequer and donor community. When REAs operations are transparent and accountable, the exchequer and donor community build more confidence in the Authority leading to increased funding to accelerate rural electrification which in turn promotes socio-economic development in the country. The findings of this study provide insights that can be used in the evaluation and finalization of REAs 2015 draft records management policy.

1.8 Scope of the Study

This study focused on REA's Headquarters region in Nairobi only. This was because the target population is concentrated at the Headquarters region in Nairobi, and it was easier to reach respondents at the Headquarters given the researcher's financial and time constraints. The population of the study involved top management, middle-level management and the operational staff. The study sample was drawn from the three categories mentioned above. The study sought to determine the extent to which records management practices impacted REA's programmes and functions.

1.9 Limitations of the Study

This research is confined to REA making it hard to generalize the findings of this study to other public sector organizations in Kenya. The study also relied on self-

reporting by the participants. REA as a public utility organization is constantly under public scrutiny by the general public. This renders its records sensitive, making staff reluctant to divulge any information to the general public. For this reason, staff were unwilling to volunteer information sought by the study. The researcher undertook measures to assure staff of their confidentiality and anonymity during data collection.

1.10 Chapter Summary

This chapter discussed the background of the study, emphasizing records management at REA. It has highlighted REAs vision and mission; and the Authority's organizational structure. Finally, the chapter explained the study's statement of the problem, objectives of the study, research questions, and assumptions of the study, significance of the study, scope and limitations of the study.

1.11 Definitions of Terms and Concepts

Access: Right, opportunity or means of finding, using, or retrieving information (International Records Management Trust (IRMT, 2009).

Accountability: The requirement to perform duties, including financial and operational responsibilities, in a manner that complies with legislation, policies, objectives and expected standards of conduct (IRMT, 2009).

Archival Institution: The agency responsible for selecting, acquiring, preserving, and making available archives. Also known as an archival agency, archives or archival authority/programme (IRMT, 2009).

Classification: The process of identifying and arranging business activities and the Resulting in records into categories according to logically structured conventions, methods and procedural rules (IRMT, 2009).

Destruction: The disposal of records through incineration, pulping, shredding, deletion or another method, so that it is impossible to reconstruct the records (IRMT, 2009).

Disposition: The actions taken to fulfil the requirements outlined in appraisal reports and retention and disposal schedules to retain, destroy or transfer records (IRMT, 2009).

Information Management: The overall process of planning, controlling and exploiting the information resources of an organization to support its operations (IRMT, 2009).

Infrastructure: Records management resources including human, financial, ICTs, regulatory framework, etc. (IRMT, 1999).

Preservation: The act of protecting records against damage or deterioration (IRM2009)

Record: Documentary evidence, regardless of form or medium, created, received maintained and used by an organization (public or private) or an individual in pursuance of legal obligations or the transaction of business (IRMT, 2009).

Records Management: A field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposal of records. (IRMT, 2009)

Records Management Programme: A programme that ensures that records are created in an organized manner, in a manageable quantity and in a suitable format. It allows records to remain in offices only as they are current and describes procedures for the storage and disposition of non-current records (IRMT, 1999).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the theoretical foundation upon which the study was based as well as conceptual and empirical literature review on records management practices. Though a large number of works were evaluated over the course of the study, which formed its reference base, the researcher focussed on specific literature pertinent to the research topic and objectives. The first section of this chapter reviews the study's theoretical foundation and its justification. The sections thereafter focus on conceptual and empirical literature review organized in line with the objectives of the study. The second section of this chapter reviews literature on records management procedures. The third section focuses on literature on non-technical or non-technological infrastructure and how it supports records management functions. Computerization of records and its impact on the records management function is covered in the fourth section of this chapter. A review of conceptual and empirical literature is then finally presented in the fifth section of this chapter. This section focuses on the strategies for enhancing sound records management practices. The chapter concludes with a summary that shows the gaps in knowledge that the study intended to bridge.

2.2 Theoretical Foundation of the Study

This section examines the theoretical framework and models which guided the study. According to Kombo and Tromp (2009), a theory is a coherent group of tested propositions commonly regarded as correct that can be used as principles of explanation and prediction for class of phenomena. The theoretical framework of the study is a structure that can hold or support a theory of a research work (Sekaran & Bougie, 2011). A theoretical framework presents the theory which explains why the

problem under the study exists. This researcher, therefore, examined relevant theories and models with an aim of explaining the arguments advanced in this research that effective and efficient records management practices is affected by various factors. The study further argues that unless these factors are addressed in a harmonious way, records management function can be negatively affected. This can lead to the poor performance of an institution such as REA. The theories or models in focus for the current study include: the records life cycle model, the records continuum model, and the Integrated Records Management System (IRMS). The following sections present a discussion of the three models as discussed by various scholars.

2.2.1 The Records Life Cycle Model

The records life cycle concept dates back to the 1930s and it is attributed to Schellenberg of the National Archives of the United States of America. This was in response to the ever-increasing volume of records produced by public institutions. The records life cycle is regarded as a model that provides a framework for the operations of a records management programme (Shepherd & Yeo, 2003). It is based on the fact that recorded information has a life similar to that of a biological organism in that it is born (creation phase), it lives (maintenance phase) and dies (disposition phase).

The records life cycle model shows the progression of actions taken at different times of the life cycle of a record from creation till disposal either by destruction or preservation as archives. The records lifecycle concept presupposes that records are transferred to an archive so that they may be used for historical and cultural purposes after their value for business purposes has been exhausted or they are destroyed

(Tough in Tough & Moss, 2006). The records life cycle model is premised on the idea that the life of a record can be divided into distinct stages as presented in Figure 2.1.

The first stage of the records life cycle model involves the creation or receipt. The second phase focuses on the maintenance and use of records. This stage entails organizing, distributing, registering, scheduling and retrieval of records. The third stage of the model caters for the disposition of the records through the destruction or transfer to an archival institution for preservation for feature references (Atherton, 1985).The records life cycle concept has been useful in promoting a sense of order in records management. It employs a systematic approach to the overall management of recorded information. However, according to Tough and Moss (2006), many alternatives on the records life cycle concept have been modelled since the 1950s. Most of these models aim to show a progression of actions taken at different times in the life cycle of a record that is recreation, capture, storage, use and disposal. Some authors have illustrated the life of records as a linear progression while others describe a loop or a circle (Shepherd & Yeo, 2003).

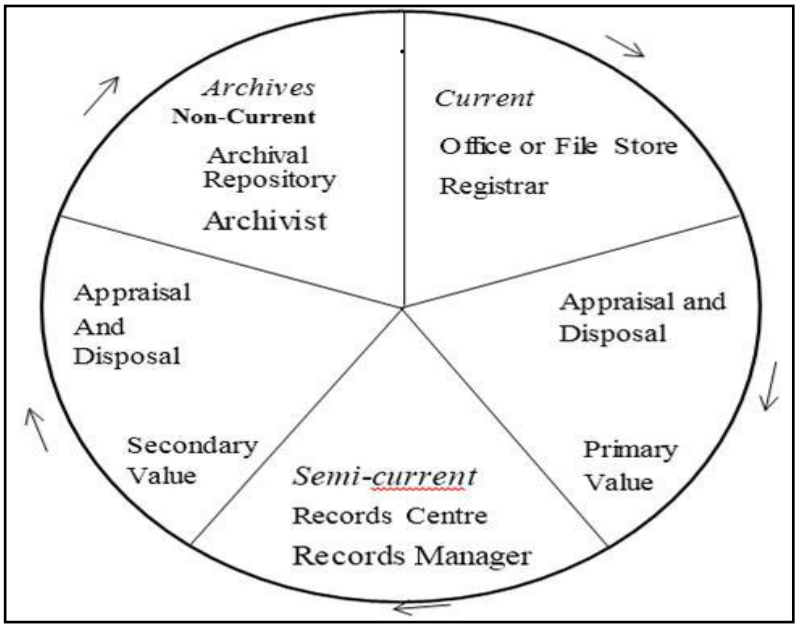

Figure 1: The Life Cycle Concept of Records (Source: IRMT, 1999, p.19).

Regardless of the different interpretations concerning the number of stages in the life cycle of records, various authors note that one of the essential characteristics of a record is its value. Like other organizational assets, their value for business purposes tends to decline as the time passes and at some point, they become useless and may be discarded as noted by (Shepherd & Yeo 2003, Tough & Moss, 2006).

The records lifecycle concept has been subjected to criticisms that are based on the trends in the work environment and on the logic in the concept itself. Atherton (1985) identifies three changes in the work environment that make the records life cycle concept ineffective in its traditional approach. Firstly, organizations combine records manager and archivist functions. Secondly, the computers have changed the working environment. With electronic records and documents, the stages in the records life cycle cannot be separated. Finally, external pressures, such as access to information legislation permit access to records that are still in administrative use. This has made a

re-evaluation of the traditional approach unavoidable; the formal differentiation between the active, dormant and the inactive stages in the life of a record became decidedly fuzzy.

Critics of the records lifecycle concept also argue against the logic behind the concept. For example, they argue that some records do not die but are retained indefinitely because of their continuing value. They note that the concept focuses on records as physical entities and on operational tasks when electronic records rely on logical rather than physical structure. It is also argued that system design should be the first stage in the recordkeeping system. Lastly, it is observed that some records can be of value for business, and historical and cultural purposes at the same time hence the stages can be blurred (Shepherd & Yeo, 2003; Tough & Moss, 2006). There is a convergence in the criticism of the records lifecycle concept, that it cannot be effective in the electronic environment. Organizations in the twenty-first century are increasingly operating in an electronic environment.

Although Atherton (1985) asserts that the records life cycle concept has been useful in promoting a sense of order in the overall management of records, strict adherence to its principles undermine any trend towards greater cooperation and coordination among archivists and records managers. This implies that the records life cycle model ignores the many ways in which the records management and archives operations are interrelated. Williams (2006) argues that a clear division between records and archives can lead to disjointed practice between the records managers who have traditionally been responsible for managing the current and semi-current records and archivists who have taken the responsibility at the archival phase.

2.2.2 The Records Continuum Model

The records continuum model was formulated in the 1990s by Australian archival theorist, Frank Upward. This was in reaction to the criticisms and weaknesses of the records lifecycle concept. The model is, therefore, viewed as an alternative model to the records lifecycle model more especially with the advent of electronic records. According to The Australian Standard for Records Management (AS 4390:2011), that defines the records continuum as a "theoretical construct that recognizes that records are created, received and used in a continuum of business activity and that the relationships between the records reflect the structure and function of that activity" (p. 3). The records continuum model is, therefore, an approach to records management emphasizing the need to manage records as part of an ongoing business process and not an isolated distinct objects that can be managed separately from the context in which they were created.

The records continuum model offers a different perspective in the management of records. The traditional records lifecycle approach separates the management of records into two distinct phases with the records manager assuming responsibility for the first phase, the records phase, whilst the archivist assuming responsibility for the second phase, the archives phase. The records continuum model in Figure 2.2 aspires to integrate and unify the management of records. The records continuum model was created by Upward, Reed and Schauder, and refined by Upward. It provides a view of record keeping point of creation, within groups, at organizational levels, and at inter-organizational levels. It provides an overview of the characteristics of recorded information, in terms of position, place and origin (Upward, 2000).

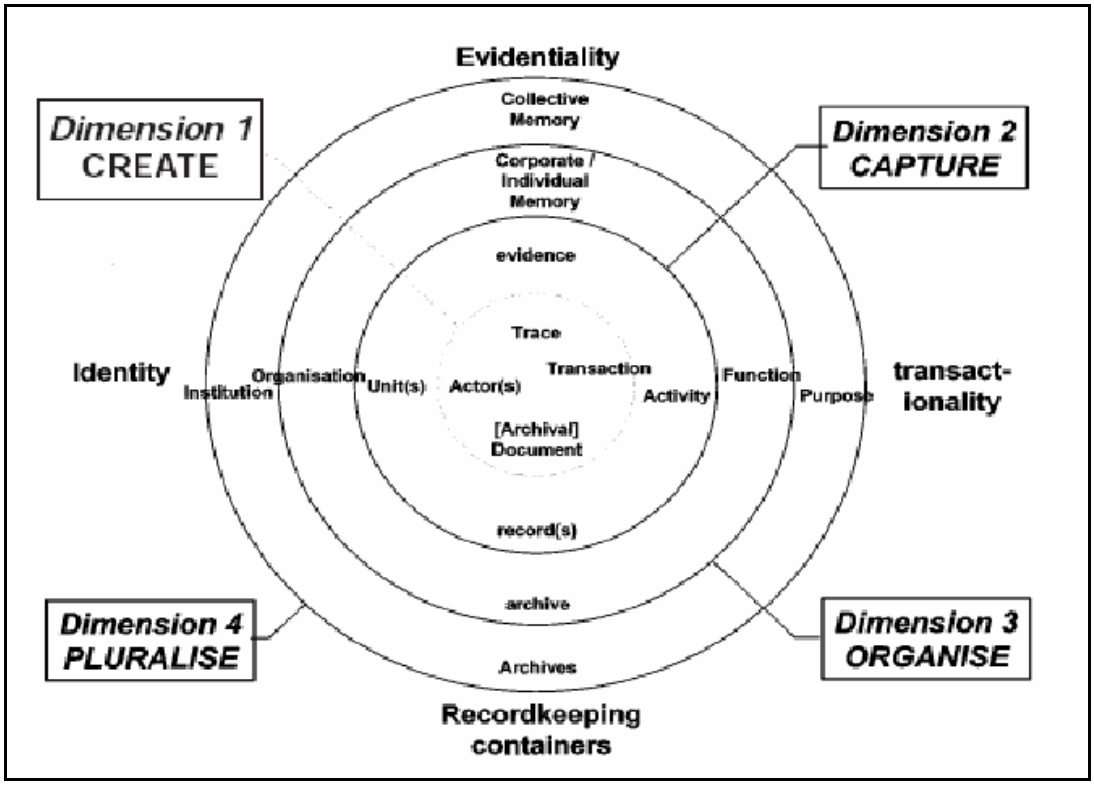

Figure 2: The Records Continuum Model (Source: Upward, F., 2000, p.123).

The records continuum model suggests that four actions continue or recur throughout the life of a record. These include identification of records, intellectual control of records, provision of access to records, and physical control of records. Figure 2.2 presents the records continuum model advanced by Upward (2000). According to Upward (2000), the records continuum model maps the traces onto appropriate dimensions in a recordkeeping system. The model has four dimensions relating to records processes: create, capture, organize and pluralize. These four processes are linked to dimensions 1, 2, 3 and 4 respectively as shown in Figure 2.2. There are four axes which represent major records themes: evidential, transactional, recordkeeping and identity. On each axis are the dimensional elements; create, capture, organize and pluralize, all of which link records management themes to processes (Pereira, 2017).

The records continuum model has some weaknesses which made it not to be the preferred model for this study. As argued by Xiaomi (2003), the model is not readily accessible as a view of reality, and to try and comprehend any view in more than three dimensions is acutely difficult. In terms of a practical usage, it does not represent a way of management. It portrays possibilities and temporal/logistic elements, but not a clear and represented path for specific record types. The continuum is a highly academic model that has emerged from an understanding of a principle-based understanding of the record as a philosophical form. The continuum model is focused more on electronic records management which makes it not suitable for the current study which focuses on all formats of records.

2.2.3 The Integrated Records Management System

IRMT (1999) proposed the integrated approach to records management as a way to ensure that records are useful both to government and to citizens and researchers so that they are available and useful from their creation to their ultimate disposition. This integrated approach blends the records life cycle and the records continuum models in an integrated records and archives management system. According to IRMT (1999), the primary purposes of an integrated approach to records management are two-fold. First to preserve records and archives in an accessible, intelligible and usable form for as long as they have continuing utility or value. Second, to make information from records and archives available in the right format, to the right people, at the right time.

According to Chachage and Ngulube (2006), the records life cycle and records continuum models have continued to dominate in the field of archival and records management, more especially in the Eastern and Southern Africa Regional Branch of the International Council of Archives (ESARBICA) region. However, in an

endeavour to make records accessible to both the government and to citizens, researchers and records professionals have recommended adoption of an integrated records management program (Rotich, Mathangani, & Nzioka, 2017).

An integrated records management programme recognizes that records follow a life cycle and acknowledges the importance of caring for those records through a continuum of care. Australian Standard 4390:2011 defines the records continuum as "theoretical construct that recognizes that records are created, received and used in a continuum of business activity and that the relationships between the records reflect the structure and the function of that activity (p.3). This definition suggests an ideal integration for documents, records, and archives management. The continuum concept seeks to break the barrier between records managers and archivists by bringing them together from creation to disposition. This is referred to as a 'continuum of care'.

According to Matongo (2015), the primary purpose of an integrated records management programme is to preserve records and archives in an accessible, intelligible, and usable form for as long as they have continuing utility or value and to make information from records and archives available in the right format, to the right people, at the right time. An integrated records management programme is there to ensure the creation and maintenance of authoritative and reliable records in an accessible, intelligible and usable form for as long as they are required to support the business and accountability requirements of an organization. For a record to be authoritative and reliable it must be fixed and must not be susceptible to change. This kind of record protection can be fully achieved where an integrated records management system is in place (Abuki, 2014).

In order to achieve the goals of IRMS, Otu, et al. (2014) note that it is necessary to enact and implement comprehensive legislation to regulate the lifecycle management of records and archives, irrespective of the medium and format, designating a single authority to oversee the process and assigning clear responsibility for actions at each stage. It is further stated by Katuu (2015) that an IRM programme should be supported by policies, procedures, systems, and structures. Preparation of long-term strategic plans to determine priorities within the programme is also important in achieving the goals of the system (Kisongwo, 2016). Again providing adequate resources, including staff, buildings, equipment, and funding, to ensure the implementation of those strategic plans and the sustainability of the programme is necessary in attaining the goals of IRMS (Fleming, 2013). Lastly, the system should be monitored and evaluated in order to assess its efficiency and effectiveness ('value for money') and to make any necessary readjustments.

2.2.4 Summary of the Models and Justification of Using the Integrated Records Management System Model

The three models discussed in the foregoing subsections apply to the management of records in the public and private sectors. The records life cycle concept has long been established and fits well with paper-based records. Regardless of the number of stages involved and the descriptions given to explain the life cycle of records, it indicates that paper records pass through various stages in their lives. Every record, particularly in paper format has to be created, used, maintained and stored, and finally either destroyed or retained into archives (Yusof & Chell 2000). With the introduction of information and communication technologies (ICTs), the concept of the records continuum was promoted in the records management world as it addresses the management of paper as well as electronic records. The records continuum model

recognizes that the processes carried out (separately) in the traditional records management domain and in the traditional archival domain are basically similar, “we create or receive records, we classify, appraise, control and maintain them, and we make them accessible” (Williams, 2006). These processes are so interrelated, overlapping and integrated, especially, but not only, in the electronic environment, that it is counterproductive to maintain any distinction.

Thus, whereas the records life cycle approach perceives each stage as linear with and independent of the other stages, the records continuum model perceives recordkeeping as multidimensional. The records continuum model suggests that the management of records is not time-based or sequential, and that actions on the record are seamless and may be simultaneous. In this regard, a record may at one time and the same time be accessed for current organizational and archival purposes especially if it is in electronic form (William, 2006). On the other hand, the IRMS model proposes the blending of the records life cycle and continuum approaches to records management. The integrated approach to records management further suggests that the work between records managers, records centre managers and archivists would be undertaken within an integrated structure, with no rigid boundaries to limit professional collaboration and development (IRMT, 1999).

IRMS model formed the theoretical foundation of the present study. Employing the integrated approach brings into picture both electronic and paper records created and maintained at REA. The current research also identifies the need for cooperation between records managers, ICT managers and archivists in the management of REA records. The integrated approach provides for this cooperation and suggests that, the work between records managers, ICT managers and archivists would be undertaken

within an integrated structure, with no rigid boundaries to limit professional collaboration and development.

Adequate infrastructure, resources and elaborate systems are key to effective records management programmes. To address these parameters, an integrated records management programme ensures efficiency and economy in the management of records through eliminating duplication of effort, creating and maintaining only those records that are needed, systematizing retention and disposal, and so on. With integrated records management, policies are in place which detail retention periods of records found in records offices, records centres and archives. A periodic appraisal of records ensures that offices do not continue to be crammed and jammed with obsolete records.

The identification of archives of enduring historical and cultural value is another objective of an integrated records management programme. After identification of these archives, integrated records management ensures the safe transfer of such archives to an archival institution. It is the integrated records management programme that promotes the arrangement of archives in accordance with archival principles so as to preserve their contextual information. Without an IRMS, these archives may be mistakenly be destroyed or they may continue to occupy office space instead of them being transferred to an archival institution.

2.3 Records Management Procedures

ISO 15489-1:2016 defines records management as the field responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records”

(p. 2). This denotes the significance of managing records throughout their lifecycle ranging from creation to disposition. It also emphasizes the need to capture and maintain evidence of business activities and transactions in the form of records. This means that for effective records management, there is need to have proper procedures in place. This underscores why this study sought to examine records management procedures at REA.

Citing Robek et al (2007, Abuki, 2014) notes that “procedures define roles and performance targets; reflect required knowledge and skills among staff and are a means of communication” (p.23). According to Kanzi (2010), the existence of records management procedures guide the employees, records classification system for effective retrieval and disposition of records, and training of records management staff. ISO 15489-1:2016 outlines the concepts and principles that should guide the development of records management procedures. Anchored on this standard, records management procedures denote documented instructions and processes that support the effective management of records in accordance with the standard's principles. Each organization will adopt records management procedures that are aligned to its size, industry, regulatory environment and individual requirements. REA, therefore, need to consider these in organizational records management procedures.

ISO 15489-1:2016 identifies some of the key aspects of records management procedures as those covering records creation and capture, classification and organization of records, access and security. Other aspects focus on records retention and disposal, preservation and long-term access of records, audit and compliance, training and awareness. In this study, records management procedures are considered under the phases of the life cycle of records as reviewed in the following sub-sections.

2.3.1 Records Creation and Receipt Phase

According to Karani (2016), records begin their life cycle when they are created and received. Mukwevho (2017) notes that the creation phase is the root of the life plan of the record. This is the stage where records and information are initially created or obtained. Marwa (2015) indicates that there are various ways through which records are created. For example, an individual writes a letter or memorandum to a business associate, an applicant applies for a vacant position in a particular organization or an existing record is placed on a copying machine and in a matter of seconds, one becomes two and so on. Furthermore, with the advent of technology, records can be created electronically and sent from one person to another (Matasio, 2017). For example, many organizations use the internet for advertising vacancies and applicants send their applications electronically through the Internet to the organization in response to the vacancy. Juma (2013) indicates that during the creation phase, the creator of the record should try to answer a number of questions which include the motive for the record's existence, the design and the lifetime of the record.

2.3.2 Records Capture Phase

Records are created and accumulated as organizations perform their daily business. They are created for a purpose and as evidence of official business. It is during this phase that the physical format of the record (paper, electronic, magnetic, and photographic) and information content are established (Mtshali & Africa, 2016). As records are created in different formats, it is advisable that some standards for records retention be established in an organization to ensure that excessive amounts of information are not generated (Marwa, 2015). The most important aspect of this phase is to recognize that records as the main source of information have been generated, and to encourage employees to assess the value and role of the information contained

at the moment of creation within a recognized framework, making it easy to support their organization's competitive performance, policies and applicable legislation (Tagbotor et al., 2016).

2.3.3 Records Maintenance and Use Phase

At the records maintenance and use stage, records and information are actively used and shared. All the other stages support this important phase of the records life cycle (Ndemanyisho, 2014). Records are actively being accessed and shared by all employees of an organization. Furthermore, this phase provides a suitable environment for easy access to timely, accurate and available information in a record (Matasio, 2017). This phase is therefore all about both active and semi-active stages of records. The active stage is the period when the records are actively used and are imperative to the organization's daily operations (Ngoepe et al., 2014). The semi-active stage is the period when the records are no longer required to support the everyday operations of the organization directly (Matangira et al., 2013). Records are therefore regularly filed after use and occasionally reorganized.

During the records maintenance and use stage phase, physical storage and filing systems are of critical importance in controlling and ensuring the safety of records and easy retrieval. Ngoepe and Ngulube (2014), maintain that this phase from an electronic records perspective involves organizing and arranging large volumes of shared information and ensuring easy access to it. In the electronic environment, the maintenance task is normally performed by the database administrator (Yusof and Mokhtar, 2015).

Irrespective of the format, records need to be managed and maintained well to ensure that they are kept current and secure, and not accidentally disposed of. Requirements

are often unique to each organization's policies, procedures, mandates and legislation in relation to a record's life cycle (Nafula, 2018). For example, records related to history or law may be managed and maintained differently from records that provide broad information (Karimanzira & Mutsagondo, 2015).

According to Marutha (2016), some questions about the use and control of records should be posed and answered before a single file cabinet or folder is purchased. These include if the filing systems need to be centralized or decentralized, if filing arrangement is to be numeric, alphabetical, or a combination of both. Furthermore, active records are needed frequently (Rotich et al., 2017). They are retrieved at least once per month. They are, therefore, stored in readily accessible office space. Inactive records are only kept for future reference such as legal and financial reasons. They are not used regularly to justify their value if stored in prime office space and equipment (Katuu, 2015). Semi-active records are often stored at a lower cost in a records centre.

The most important aspect of the records maintenance and use stage is encouraging employees of an organization to use and share complete and accurate information actively, in a timely manner, with one another. Good and timely information is a critical aspect of supporting the competitive performance of an organization (Fleming, 2013). Effective use and dissemination of records yields timely, accurate and available information that is accessible to those who need it within and outside an organization, when they need it, and in a form that they can use (Marwa, 2015). Some records may stay active and in use for decades, while others quickly become semi-active or ready for disposal.

2.3.4 Records Disposal Phase

The records disposal phase is the stage in which records that are no longer of value to an organization are destroyed or transferred to the archives for their secondary value

(Ndemanyisho, 2014). Records reach their inactive phase when their primary value to the organization lapses. In agreement, Mtshali (2016) indicates that this is the stage when records have reached the end of their life cycle. As determined by the National Archivist, one of three pathways for each record must be followed by the organization. These can be destruction, alienation or transfer of archival records to the archives.

It is important to deal with records as soon as it is determined that they no longer have business value to the organization to avoid the costly build-up of stored backlogs of records (Tagbotor et al., 2016). The records disposal phase is, therefore, of critical importance for proper and economical maintenance of office records. Many records can be legally destroyed at the end of their active life cycle. Others become semi-active and should be retired to a records storage area or reformatted for more convenient storage (Ndemanyisho, 2014). Microfilming and digital imaging are the most common form of reformatting.

Records with long-term value are sent to the archives for permanent storage. According to Phiri (2016), the need to refer to records declines sharply as their age increases. As records reach the inactive stage of their lives, they are destroyed since they are no longer useful to their creator or organization. Alternatively, they can be transferred to archival storage for future reference. Once records are identified as archival, the National Archives will specify certain requirements regarding the format of the records. If the technology is too advanced for the National Archives to manage, the organization will be required to undertake archival preservation. Furthermore, it is important for organizations to arrange with the National Archives for the transfer of inactive records before attempting to do so. Such a step would avoid any possible

transfer problems likely to be experienced during the transfer process (Mutimba, 2014).

The disposal of records in Kenya is regulated by the provisions contained in Chapter 19 of the Public Archives and Documentation Service Act (1965). Section 7 (1) of the Act indicates clearly the criteria to be used in the disposal of public records in Kenya (Matangira et al., 2013). In terms of transferring electronic records to the National Archives, the organization transferring the records is required to include certain documentation (metadata) accompanying computer files (Karaya, 2014). Technical documentation of the records, sufficient to support their use for secondary analysis, must accompany the tape. Furthermore, the National Archives also needs specific information on how the tape was written, identification and definition of all data sets transferred, records layouts specifying relative positions, lengths and definitions of all data elements, and codebooks for all unique codes used in the records (Nashon, 2014). According to Ngoepe and Ngulube (2014), once the records have been transferred to the archives, they need to be processed, conserved and made accessible as sources of information or evidence.

In organizations, the management can use such records to establish facts, take decisions and learn about the past operation of the organization. At the one end is the creation of the record and its active management and use; in the middle, its semi-active phase; at the other end , it is final disposal (Marwa, 2015). The first two phases place the function of records management firmly into the category of business activity per se, the last one into the category popularly referred to as archival. Having outlined the life cycle of a record, it remains of utmost importance for the end-user to understand the structure and line reporting of the organization fully (Ndemanyisho,

2014). As records are created, they move from one operational level in an organization to the other. The organizational structure therefore plays a crucial role in ensuring free movement of records from creator to end-user (Sundqvist & Svärd, 2016).

Different organizational structures normally ensure the free movement of records from the creator to the end-user: The disposal of records includes the retention, deletion, transfer or destruction of records following appraisal decisions. Various activities are involved in records ddisposal processes.

First, appraisal which involves appraising business functions and activities to determine whether records need to be made, which of these records need to be retained and for how long. This includes identifying records with on-going value as archives (Nashon, 2014). For instance, in New South Wales, Australia, appraisal decisions are authorized by the State Records Department through general and functional retention and disposal authorities.

Second, sentencing which involves implementing the disposal authority and applying retention decisions and disposal actions to records (Azameti & Adjei, 2013). This includes documenting sentencing activities, including transfer and destruction.

Third, ddestruction which entails the safe, secure and authorized destruction of time-expired records. This includes documenting records destroyed and the authority by which they were destroyed (Segomotsi & District, 2013).

Finally, the transfer of records. This involves transferring control of records to new owners or custodians following the transfer of functions. It can also apply to the transfer of archives to an archival institution such as State Records Department (Abuki, 2014). This transfer process must be documented fully. The reviewed

literature has demonstrated records management procedures by focusing on the activities involved. However, there is scanty information on how records management procedures are carried out in public sector organizations in the energy sector in Kenya such as REA. This is a gap this research sought to fill by examining the records management procedures at REA.

2.4 Non-Technical Records Management Infrastructure and Its Support to the Records Management Function

The availability of infrastructure to support records management is key to effective records management practices in organizations. As Chikomba (2018), notes, one of the key factors for successful digital records management is the availability of proper and adequate infrastructure and resources. Although the author is focused on electronic records, the same applies to even paper-based records in organizations. All organizations, whether public and private, need to have appropriate records management infrastructure to not only guarantee efficient and effective records keeping, but also to facilitate efficient and effective service delivery (Kisongwo, 2016).

Finance is an important resource in records management as it enables the hiring of people and the purchase of equipment required to facilitate records management processes and procedures. According to Matasio (2017), a trusted environment for records management is supported by non-technical attributes such as policies, standards, practices, systems, and people. Further, technology supports records management. All these must be managed in an accountable framework and governance structure.

Chikambo (2003) identifies the essentials of a good records management framework. He notes that we should have in place information-related laws, policies and programmes, records management standards and practices, and the necessary qualified human resources to implement and manage the systems. Focusing on a study on the management of digital records in selected financial services parastatals in Zimbabwe, Chikambo (2018) adds that policies, guidelines, standards and legislation are required for any records management system whether for manual or digital records. This study considers the foregoing requirements and others discussed latter in this section as non-technical or non-technological infrastructure. Specifically, in this study, this infrastructure comprises the following: legal and regulatory framework, policies, standards, financial resources, staff, professionalism and awareness programmes, accommodation, equipment and materials, governance structures, and strategic plan.

2.4.1 Legal and Regulatory Framework for Records Management

The first non-technical infrastructure considered in this research is the legal and regulatory framework. According to Okello-Obura (2011) an effective legislative framework for records management is essential in averting poor crisis arising from poor records management. In agreement, Chikomba (2018) observes that such legislation provides a framework of how a record is supposed to be managed throughout its lifecycle. The foregoing underlines the importance of a legal and regulatory framework for records management.

Okello-Obura (2011), notes that it is important that an up-to-date legislative framework guiding records management practices is put in place and that the staff are made aware of the same for implementation purposes at all the stages of the records

lifecycle. IRMT (2009) considers the absence of such legislations and/or the existence of ineffective and outdated laws as impediment to records management in many countries. The current study thus sought to establish whether REA adheres to the legal and regulatory framework in Kenya when dealing with its records management programme.

There are various laws that have been adopted in the Kenyan public sector to help in streamlining records management. Njeru (2018) acknowledges that the existence of such pieces of legislation requiring government departments and ministries to maintain their records. For instance, The Public Archives and Documentation Service Act, Cap 19 of the Laws of Kenya which established the Kenya National and Documentation Service (KNADS) governs records management in the public sector. This Act empowers the Director of the KNADS to advise on creation, use and disposal of records. The Director is also mandated to examine and advise on the maintenance and preservation of public records. The Act further empowers the Director to acquire, house and preserve all public archives and records which are of historical value. In addition, the Director is required to grant public access to all public archives and records as well as authorize their destruction and disposal. The Public Archives and Documentation Service Act, Cap 19 of the Laws of Kenya is supported by other legal provisions such as the Records Disposal Act, Cap 14 which governs management and disposal of court records but under the direction of the Director of the KNADS (Matasio, 2017).

The Kenya Public Procurement and Disposal Act, Cap 412 of the Laws of Kenya enacted in 2005 and amended severally, including 2020 has provisions that regulate the management of public sector records on the procurement and disposal of public

assets. This Act provides for the establishment of the Public Procurement and Regulatory Authority (PPRA) for overseeing and regulating public procurement and disposal processes in Kenya. Among other functions, PPRA is responsible for developing the policies, guidelines, and standards for the management of procurement and disposal of records. It also provides guidance and support on the same and their implementation among procuring agencies in the public sector in Kenya.

Section 97 of the Kenya Public Procurement and Disposal Act, Cap 412 of the Laws of Kenya enacted in 2005 requires procuring entities to maintain accurate and up-to-date records of their procurement and disposal activities. The records need to be secured and made easily accessible. They should be made available for inspection by the Auditor-General or other relevant government agency. Section 97 of the Act provides for the establishment of a records management system for procurement and disposal of records. Such a system is required to ensure the safe custody, preservation, and accessibility of such records with measures to prevent their loss, damage or destruction. REA is a public sector entity and thus it is guided by the Kenya Public Procurement and Disposal Act, Cap 412 of the Laws of Kenya enacted in 2005.

Article 35 of The Constitution of Kenya (2010) provides for the right to access to information held by the State or any other person that is required for the exercise or protection of any right or fundamental freedom. This encompasses the right to receive information from public entities, as well as the right to access information held by private entities where such information is necessary for the exercise or protection of any right or fundamental freedom. To actualize this constitutional right, Kenya enacted The Access to Information Act in 2016.

The Access to Information Act, Cap 31 of the Laws of Kenya was enacted in 2016. It seeks to promote transparency and accountability in public affairs by ensuring that citizens have the right to access information held by public entities, subject to certain exemptions and limitations as provided for in the Act. This Act has several Sections ranging from 8 to 11 focused on records management. For instance, Section 6 of this Act requires public entities to maintain accurate, complete, and up-to-date records of their activities, operations, and decisions. The records should be organized and managed in a manner that facilitates public access to information. Section 7 of the Act requires public entities to develop and implement records management policies and procedures that comply with relevant standards and guidelines for the management of records.

Section 8 of The Access to Information Act, Cap 31 of the Laws of Kenya of this Act requires public entities to establish and maintain an information registry that contains a description of the records that they hold, including information on how to access the records. Section 9 requires public entities to ensure that their records management systems are secure and protected from loss, damage, or unauthorized access. Section 10 of the Act requires public entities to regularly review and update their records management policies and procedures to ensure that they remain relevant and effective. Section 11 of the Act requires public entities to provide training and capacity building to their staff on records management and the implementation of the Act. If public entities such as REA can adhere to this Act, then their records management practices would be greatly improved in Kenya.

Article 31 of The Constitution of Kenya (2010) provides for the right to privacy and this is relevant to records management practices. As a step towards fulfilling this

right, the country enacted The Data Protection Act of 2019. This Act establishes the legal framework for the protection of personal data in Kenya and applies to both private and public entities that process personal data. Part 2 focuses on the rights of data subjects, such as right to access to their personal data, the right to request correction or erasure of their personal data, and the right to object to the processing of their personal data. Part 3 on the obligations of the data controllers and processors such as requirement to obtain consent for the processing of personal data and the requirement to implement appropriate data security measures.

Parts 4 and 5 of the Kenya Data Protection Act of 2019 focus on the data protection principles and enforcement and remedies respectively. The provisions of The Data Protection Act of 2019 of the Laws of Kenya has several implications to records management practices in the country. This is in respect to data security and consent requirements, data subject rights, data retention requirements, accountability requirements. Therefore, entities such as REA must ensure that they comply with the Act in all respects in order to avoid penalties and damage to their organizational reputation.

Despite various laws put place in Kenya, effective and efficient records management in the public sector has largely remained a mirage. This can be attested to by the public complaints on delays in services delivery by public sector organizations which is usually attributed to unavailability of the required records (Abuki, 2014). For instance, citizens have been forced to wait for long for their national identification documents, there has been issuance of multiple title deeds for a piece of land, missing of court files among other problems which have all been attributed to poor records management. According to Tagbotor et al.(2016), this can be ascribed to the absence

of a monitoring and evaluation mechanism for records management. Matasio (2017) adds that monitoring and evaluation framework if put in place can help to have informed reviews and improvements of records management programmes.

2.4.2 Records Management Policies

IRMT (1999) points out that once legal and legislative issues relating to records care are considered, there is need to examine the policies affected and affected records management. In concurrence, Marutha (2016) explains that once legislation is in place and policies have been developed, the organizational accountability to records management structures and more specific policies required to conform to those legislative and larger policy changes must be considered. Therefore, the second non-technical infrastructure considered in this study is a records management policies. Alegbeleye and Chilaka (2019:6) defines a records management policy as "an official document that guides records management in an organization." Mampe and Kalusopa (2013) agree with this definition and add that such a policy should be clear and it should outline the functions of records management in relation to the record keeping requirements of an organization.

ISO 15489-1:2016 specifies that an organization should establish, document, maintain and promulgate policies and procedures to guarantee that its business need for evidence and accountability and information about activities is met. ISO 15489-1:2016 further stipulates that a records management policy and procedures of an organization should demonstrate the application of the regulatory environment to their business processes. According to Kanzi (2010), records management policies developed and implemented at an organizational level should be endorsed by the

heads of the institutions and their top management teams. Further, their implementation should be continuously monitored and reviewed annually.

Records management policies facilitate the documentation of various aspects that are undertaken in respect to records management. The policies also detail the systems that will be put in place in order for the records management practices to be undertaken in a proficient manner. Records management facilitates continued accessibility of high quality and usable records regardless of their form, ensuring that they remain authentic, reliable, accurate, complete, relevant and timely (Karaya, 2014). Chikomba (2018:28) notes that "in records management, policies and guidelines are critical because they give the general framework for the creation, classification, use, storage and disposal of records." Contributing on this Kanzi (2010) identifies the long-term objective of a records management policy. The author notes that such a policy ensures that government bodies capture, maintain and protect a corporate memory of decisions and actions that impact on the lives of the people and the environment they govern.

A policy framework for records management needs to be in place in each and every organization (Nashon, 2014). The records management policy framework must stem from the other overall corporate policy that addresses the management of organizational resources including people and finance (Marutha, 2016). The records management policies should serve as the high level framework that sets the stage for subsequent development of records management procedures and standards, and best practices (Oganga, 2016).

Just as national issues will vary from country to country, organizational issues will vary across government departments (Mutimba, 2014). Organizational policies should

be established to help determine placement of the records and archives institution in the Government set-up for the efficient and effective delivery of information and records management services. In addition, these policies should ensure appropriate linkages between the creation and management of information and the execution of the agency's functions and help establish information management standards (Marwa, 2015). Chikomba (2018) notes that records management policies put in place need to address both paper-based and electronic records. The author points out that if such policies don't cater for the two formats of records, then they are considered inadequate. Obely (2015) notes that such policies should help identify those information systems and information technologies that require improvement or restructuring and should establish standards for the use of information technologies, including computers and communications systems. Lastly, Karimanzira and Mutsagondo (2015) provide that policies should help establish systems to ensure the security and physical protection of information and records.

IRMT (1999) acknowledges that records management policies are set at the national and organizational level. The organizational policy provides specific policy information and is usually accompanied by procedural information, explaining the specific steps involved in executing the process in question (Obely, 2015). The three documents – the national policy, organizational policy, and procedural information – work together to guide the direction of the government with regard to records care (Tagbotor et al., 2016). These policies and structures will involve a partnership between the national records and archives institution and its branches and the record creating agencies. According to IRMT (1999), organizational policies help the agencies and departments of government to fulfil the goals and objectives of an IRM programme.

The significance of policies and guidelines in records management is outlined by various scholars (for example, Sejane, 2004; Mokhtar & Yusof, 2009; Kabata, 2012). To these authors, such policies help in setting up records management standards, enable organizations to improve the quality and reliability of their electronic recordkeeping systems, and provide clear guidance on what records are and why they need to be managed effectively. The policies further serve as a guideline to facilitate actions and decisions to be taken and protect organizations against litigation over improper use of information systems for recordkeeping purposes. When such policies are in place, they set out general principles and policies relevant to the organization on specific aspects of records management, which then form the basis for the implementation of new records management programmes. The policies also identify statutory or other legal foundations for the organizational recordkeeping and serve as evidence of management's support of and investment in a compliant records management programme.

The foregoing discussion had laid out the significance of records management. Despite this, various studies point out that public sector organizations operate without such policies. For example, a study by Chikambo (2018) on the management of digital records in selected financial services parastatals in Zimbabwe. The research established that government agencies were operating without formulating records management policies and procedures whether for records in paper or electronic format. Additionally, in the circumstances where such policies and procedures existed, they were considered weak or outdated. Chikambo's (2018) research found out that Zimbabwe did not have a national digital records management policy. This suggests the need for public-sector agencies to craft in-house policies and guidelines.

To the researcher, the foregoing state of affairs indicates that digital records management approach in Zimbabwe is mainly informal or unwritten.

Wamukoya (2007) identifies lack of a national records management policy as an impediment to records management in Kenya. Studies conducted in Kenya further show a lack of records management policies. For instance, a research by Ambira (2016) focusing on a framework for management of electronic records in support of e-government in Kenya established a lack of policy and regulatory framework on the management of electronic records in government ministries in the country.

Mwangi, Ng'etich, and Ochichi (2017) mixed-methods research examining records management practices for improved service delivery in Laikipia County Government in Kenya. The study conducted using questionnaires and face-to-face interviews concludes that the county government did not have records management policies in place to govern the management of records. Njeru's (2018) research reveals gaps in records management policies in Kenya. Her research focused on the evaluation of records management practices at the Parliamentary Service Commission (PSC) of Kenya**.** It was found that records management laws, policies and guidelines issued by the government were very minimally applied in the management of records at PSC. The research also established that the legislations, policies and regulations in place were inadequate for the management of both paper-based and e-records at PSC. The literature reviewed acknowledge the importance of records management policies whether at a national or organizational level. However, there is scanty information on how such policies guide records management practices at organizational level more especially in the energy sector in Kenya. This is a gap that this study sought to bridge

by examining if REA had a records management policy and if it adhered to it in its practices.

2.4.3 Records Management Standards

In this research standards and practices are considered as the third non-technical infrastructure for records management. Njeru (2018:48) considers a standard as "a benchmark on best practices which all those involved with records should adopt to manage the organizaction's records." According to Chikomba (2018), there are standards that guide effective records management. The author points out that such standards ensure that records are created and maintained to a level necessary to safeguard the interest of organizations. The standards further ensure that the integrity and authenticity of records are safeguarded.

Records management also requires corporate-approved standards and procedures to bring them to the same level as other corporate assets namely money and people (Juma, 2013). Standards can range from specific aspects of records keeping, such as records classification, records retention and disposition, or standards on best practices for handling specific types of records such as e-records and e-mails (Zam & Samsudin, 2014).

There are several ISO standards and Kenyan standards on records management. For instance, ISO 15489-1: 2016. The standard provides principles and requirements for establishing, implementing, maintaining, and improving records management systems. It covers the design, implementation, and management of records systems. It also focuses on the processes for the creation, capture, organization, access, retrieval, and disposition of records. ISO 15489-1: 2016 is, therefore, important in ensuring the proper management and governance of records throughout their lifecycle. This is

useful to organizations such as REA in developing and implementing effective records management practices.

The second part of the ISO 15489 is coded as ISO 15489-2:2016. This standard provides guidelines for implementing the principles and requirements specified in ISO 15489-1. It offers practical advice on the design, implementation, and management of a records management programme. The standard covers the following aspects: designing a records management programme, conducting a records survey, establishing records retention and disposal policies, iimplementing records management controls, iintegrating, training and awareness, monitoring and auditing. ISO 15489-2:2016 is, therefore, useful for organizations such as REA seeking practical guidance on the implementation of records management systems.

ISO 30300:2011 focuses on a framework for establishing, implementing, maintaining, and improving a management system for records. It outlines the components of a records management system, including policy, objectives, planning, implementation, operation, performance evaluation, and continual improvement. To complement this standard, there is ISO 30301:2011 which sspecifies the requirements for a management system for records based on the principles and elements of ISO 30300. It provides organizations with a framework to ensure the systematic and effective management of records.

ISO/IEC 27001 is an international standard for information security management systems (ISMS). IEC stands for the International Electro technical Commission. The standard provides a systematic approach to managing sensitive company information, ensuring its confidentiality, integrity, and availability. The standard sets out

requirements for establishing, implementing, maintaining, and continually improving an ISMS within the context of the organization's overall business risks.

Ambira (2016) identifies some of the ISO standards specific to the management of electronic records. For instance, ISO 16175-1:2010 focusing on the principles and requirements for software applications used to create and manage records in electronic office environments. It covers aspects such as record creation, capture, organization, access, retrieval, storage, preservation, and disposition. ISO 16175-2:2011 which covers the guidelines and requirements for the design and implementation of digital records management systems (DRMS). It addresses the functionality, interoperability, and system components necessary to support effective management of digital records. ISO 16175-3:2010 focuses on the integration of records management requirements into business systems. It provides guidelines and functional requirements for the management of records within the context of business processes and systems. From the foregoing, it is evident that the standards under ISO 16175 series seek to ensure that software applications and systems used for records management meet specified criteria for managing digital records effectively and efficiently.

Ambira (2016) further identifies ISO 19005-1:2005 focusing on the requirements for using the Portable Document Format (PDF) version 1.4 for long term preservation and accessibility of electronic records. By following the guidelines and requirements of this standard, organizations can create PDF files that are suitable for long-term archiving, preventing issues such as format obsolescence and loss of information over time. ISO 23081-1:2017 provides guidance on managing metadata for records within an organization's records management framework. It covers the following key aspects

of records management: principles of metadata management, metadata requirements for records management, metadata schema and models, integration of metadata management, metadata management processes, interoperability and exchange of metadata, governance and policies. This standard is thus critical in organizations' development and implementation of effective metadata management practices for records. It helps ensure the consistency, accuracy, and accessibility of metadata, enabling the proper identification, retrieval, and preservation of records throughout their lifecycle.

Despite the significance of records management standards in organizations Wamukoya (2007) and Njeru (2018) note there limited or non-use in institutions in the public sector in Kenya. For instance, Njeru's (2018) research at PSC in Kenya acknowledges such standards in establishing efficiency in creation of records, records distribution systems, records maintenance and use systems and to determine efficiency of records appraisal and disposition system. However, the study notes that despite respondents' awareness of international standards for records management such as ISO 15489 and ISO 27001, they were not being implemented in records management at PSC.

In Kenya, the National ICT Policy of 2016 and revised in 2019 together with The ICT Authority Standards provide impetus and guidance to the management of electronic records in the country. This revised National ICT Policy (2019) policy defines the forward-looking position of the Government on various areas of the evolving ICT sector landscape in Kenya.The mission of the policy is "To facilitate universal access to ICT infrastructure and services all over the country." The policy notes that the government intends all its services to be online to every Kenya be delivered quickly

and fully at the time and place that they are needed. This ICT policy requires all arms of government to build, deploy, operate and manage locally built back-end and front end systems to deliver services.

On digitization, the Kenya National ICT Policy (2019) notes requires that government Ministries, Departments and Agencies (MDAs) to move to all digital systems of communication, document generation, document storage and archiving. This policy mandates that all MDAs will digitize all their historical records and make the same available to the National Archives in an acceptable electronic format. It is evident that the revised National ICT policy of 2019 provides direction that government agencies such as REA should take in respect of their application of ICTs and records management.

In Kenya, a government agency, ICT Authority (ICTA) set up in 2013 is mandated to formulate local standards on ICTs and enforce them in Government. The agency has so far formulated a number of ICT standards with implications to records management to government and its agencies such as REA. First, there is the Government Enterprise Architecture, ICTA 1:001:2019.The Standard defines the Government-wide Enterprise Architecture principles and provides guidelines on how to implement the Government Enterprise Architecture (GEA) Framework in Ministries, Counties and Agencies. Second, there is the Data Centre Standard, ICTA-2.002:2019 that outlines the specifications to be used in setting up Government data centres that support the large amounts of data flow stored and handled by Government, and are efficient enough to ensure continuous service availability.

Third, we have, the End-User Equipment Standard, ICTA-2.002:2019. This Standard establishes procedures for acquisition, data security, privacy, access, storage,

management, retention and disposal of all end user devices and services. ICT systems and services should support data exchange, portability and interoperability. Fourth, there is the ICT Networks Standard, ICTA-2.002:2019.The Standard establishes specifications for planning, design, implementation, utilization and management of network infrastructure that interconnects and provides internal connectivity in Ministries, Counties and Agencies (MCAs) for both single-tenant and multi-tenant buildings.

Fifth, there is the Information Security Standard, ICTA-3.002:2019. The aim of this standard is to provide a framework for the setting up of appropriate controls that will ensure the protection of information from a wide range of threats in order to ensure continuity in government operations, minimize risk, and maximize return on government IT investments. The sixth standard by ICTA is the Electronic Records and Data Management Standard, ICTA-4.002:2019**.** This Standard provides a framework for management of electronic records such that they meet the same requirements as their regular paper record counterparts. This standard covers the following areas: general considerations, capturing records, classification and indexing, access control and storage, migration and conversion, retention and disposal, e-records management systems, and business systems. This standard is thus at the core of electronic records management in Kenya's public sector.

Seventh, we have the IT Governance Standard, ICTA-5.002: 2019. The standard defines the processes that ensure the effective and efficient use of IT in enabling a government institution to achieve its goals. Eighth, ICTA has formulated the Systems & Applications Standard, ICTA-6.002:2019 which establishes a common framework for software life cycle processes, with well-defined terminology that can be

referenced by the MCDAs. Ninth, we have, the Cloud Computing Standard, ICTA-7.002:2019 which provides a framework for the acquisition and deployment of cloud-based computing products and services.

Finally, there is the ICT Human Capital and Workforce Development Standard, ICTA-6.002:2019. This standard seeks to enhance the opportunities for interoperability of public service ICT resources ensuring uniformity in skills and competencies, and guaranteeing uniform quality of government services everywhere and all the time. It is evident that there are several ISO and ICTA Standards that are applicable to records management in Kenya. Thus, this study sought to find out if REA applies these Standards in areas of their records management practices that they apply.

2.4.4 Financial Resources

According to IRMT (1999), financial resources are a prerequisite for all other resources needed for effective records management. As indicated by Asogwa (2012:205), for digital records and archives management programme to be successful, financial and human resources have to be available. It is imperative that provision be made in the annual estimates of capital and running costs for sufficient funds to enable the records and archives institution and its departmental units to perform their functions properly (Ngoepe & Ngulube, 2014).

Ideally, each records management unit in an agency should have its own budget or, at least, an adequate allowance within the department of which it forms a part. Similarly, the records and archives institution should be able to manage its own budget. Value for money should be achieved through a plan for expenditure on staff, accommodation, equipment, and materials that matches the requirements for the

delivery of an efficient and economical records management program (Mutai et al., 2017). Within the archival facility, basic services should be provided free of charge to all users. The archival institution may need to maximize the generation of income from its programs and activities, but this should support and not interfere with its work towards the achievement of its stated mission (Matangira et al., 2013).

This study also considers staffing as the fifth non-technical infrastructure for effective records management.

2.4.5 Records Management Staff

According to IRMT (1999), the quality of staffing determines the quality of any records management. This is supported by Tagbotor et al., (2016) who state that the quality of any records management programme is directly related to the quality of the staff that operates it. IRMT (1999), advocates for a plan for restructuring records and archives institutions that takes into account the number of staff needed, the tasks they will undertake, their particular qualifications and the requirements for their promotion through the civil service. Kanzi (2010) notes that there is need to have a designated or appointed staff member in charge or head of records management at a senior management in an organization.

When planning a restructured records and archives institution, it is necessary to consider the number of staff needed, the tasks they will undertake, their particular qualifications, and the requirements for their promotion through the civil service (Marwa, 2015). The skills and competencies required of the records management staff may vary depending on their role and responsibility (Matasio, 2017). However, (Mavhangira, 2017) notes that they need to have knowledge and skills requirements that will enable them to contribute to good management of records in the

organization. Building human capacity in the organization goes beyond mere training. This may also require an analysis of knowledge and skills.

Identification of specific competencies requires translation of job skills into job description and setting up of accountability framework for records management (Obely, 2015). Within each Government agency or department, units such as personnel, finance, transportation or education, should have a records management unit. The head of this unit should be of equivalent rank heads of other units within the agency or department with clear lines of communication to the head of the relevant division and the head of the agency. Ultimate responsibility for the effectiveness of records work should then rest with the head of the agency (Marwa, 2015).

Alegbeleye and Chilaka (2019) recognizes the fact that records management is an evolving field and thus there need to be in place a continuous staff development programme to equip members with the requisite skills and competencies. Njeru's (2018) study at PSC in Kenya identified that the basic records management skills among staff were inadequate and this affected their work.

2.4.6 Professionalism and Awareness

Professionalism and awareness for records management staff is the six non-technical records management infrastructure in this study. Oganga (2016) argue that everyone in the organization has the responsibility for records and so they should be aware of the role and importance of records and what each one needs to do individually to ensure that records are well managed. Senior executives too need to understand that records are an organizational resource similar to finance, and it is therefore their responsibility to put in place the necessary management structures, and also state what

role each one of them plays to ensure efficient and effective records management (Njeru, 2018).

2.4.7 Accommodation

In this research, accommodation is considered as the seventh records management infrastructure considered to be non-technical. According to Marwa (2015), adequate accommodation is essential to the proper functioning of the records service. Three particular types of accommodation are required. These are records offices for the storage and use of current records, records centres for the storage and retrieval of semi-current records and the archival repositories for the preservation and use of archival records (Tagbotor et al., 2016). According to IRMT (1999), adequate accommodation is essential to the proper functioning of the records service.

Records offices (registries) must be located conveniently for the action officers they serve. They should be kept separate from other administrative units, such as the typing pool (Tsvuura & Mutsagondo, 2015). They should be large enough to house the current files for which they are responsible and the records office staff who handle them. The accommodation must be secure and well maintained, and it must be of strong construction so that it can bear the weight of the records (Marwa, 2015). Records centres serve as intermediate storage facilities: they receive and administer all records, in whatever format, that are retired from current records systems; provide a reference service based upon the records; and dispose of records in accordance with disposal schedules and plans (Njeru, 2018). They are high-density, low-cost storage areas, which must be equipped with a system for retrieving and consulting the records held (Matangira et al., 2013). They should be safe, secure, clean, efficient, and economical.

Ideally, the climatic conditions (temperature and humidity) should be kept at controlled levels. Archival repositories must provide a controlled physical environment for the archives held within them (Marwa, 2015). Environmental conditions must always be within acceptable limits, created by the use of adequate insulation and building materials in the construction of the facility. Where it is not possible to have a purpose-built repository, continuous air conditioning should provide an artificial environment as far as possible.

2.4.8 Equipment and Materials

To support records management, equipment and materials are considered in this study as the eighth non-technical infrastructure. Sufficient and appropriate equipment and materials should be provided for the handling, storage, and preservation of records throughout their life-cycle. One of the benefits of an integrated records management program is that it encourages the efficient use of equipment and supplies, which reduces both cost and waste (Ndemanyisho, 2014).

2.4.9 Governance Structure

Governance structure constitutes the ninth non-technical infrastructure for records management infrastructure that the researcher considered. Karaya (2014) asserts that records management needs to be based on assigned accountability beginning with the head of the organization. The Chief Executive Officer of an organization should then proceed to appoint an individual to serve as the corporate authority or records manager in-charge of records management on behalf of the entire organization. Karaya (2014) further states that such an individual need to be supported by being given human resource and other resources that specifically deal with the functions of records management.

2.4.10 Strategic Plan

Finally, to support records management, there is need to put in place a strategic plan for the same. According to Mutai *et al.,* (2017), once the national and organizational policy requirements have been considered and the available resources assessed, it is necessary to restructure existing systems and plan for current and future activities on the basis of a strategic plan which identifies the goals and objectives of the organization, determines the best mechanisms for achieving those goals and puts into action the information gathered from a review of existing systems. Developing infrastructures for records and archives services is one of a series of three modules that introduces records and archives managers to the executive management issues affecting records and archives systems and services (Matangira et al., 2013).

2.5 Computerization of Records and Its Impact on Service Delivery

Yusuf and Adekoya (2021) acknowledge that records management has taken a new dimension with the advancement in ICTs in the last two or three decades. Mulauzi (2019) acknowledges that the use of ICTs to store organizational records constitute an important aspect of effective RM. Mulauzi (2019) points out that records creation, distribution and storage can be done using technological devices such as computers. Computerization of records is the process of capturing or transforming paper records to digital format. To Chikomba (2018), public sector institutions in Zimbabwe have embraced ICTs so as to promote accountability, transparency and improve service delivery.

Computerization of records has several benefits that can help improve records management and service delivery in organizations. For instance, Mulauzi (2019) notes that the use of ICTs in records management facilitate storage, access to, retrieval and

distribution of records. This is supported by various authors such as Bwalya, Zulu, Grand and Sebina, 2012; Flavia-Blanco, 2011; Hase and Galt, 2010; Ralph & Reynolds, 2008; and Terer, 2012). Contributing on the foregoing, the Municipal Research and Services Center (MRSC) (2019), presents a summary of the benefits of technology-based records management. These benefits have greater efficiency via electronic records management systems, lower staff costs and records storage costs, reduce legal suits and penalties, improved customer service, greater transparency, and improved regulatory compliance. Other benefits include enhanced records security and better backup and disaster recovery.

The foregoing benefits concur with those outlined by IRMT (2009) as follows: widespread access; flexibility; efficiency and effectiveness; economic benefits; general business opportunities; and auditing capabilities for regulatory compliance. Given the foregoing benefits, this study sought to determine the level of records computerization at REA and how it has impacted the Authority's effectiveness in service delivery.

In the computerization of records, various software are used. Mulauzi (2019) identifies the key functions of records management software in relation to facilitating the capture, archiving, storage, search, retrieval, redaction, tracking, reporting, management, and sharing of a wide variety of public record types. MRSC (2019) categorizes records management software into three major categories. First, custom software which is a software developed in-house to meet unique records management needs of an organization. Second, specialty Software which is off-the-shelf software that performs specific records management tasks. For example, document

management, email records management, social media archiving and storage, web content archiving and storage, and records request management.

Finally, Mulauzi (2019) identified the multi-function software, also known as Content Management Applications, Records Management Applications or Enterprise Content Management Systems. This depends on the range of records management functions and features they support. As the name suggests, multi-function software combines a range of capabilities and services into more full-featured records management systems or packages designed to meet a wider variety of records management needs.

According to MRSC (2019) Content Management Applications deal with more than just the scanned documents of earlier applications. On the other hand. Records Management Applications integrate special records retention and destruction tools into document management systems that provide the ability to identify and schedule different types of records for automatic destruction or archiving in conformance with required retention schedules. Enterprise Content Management [ECM] Applications which fall under full-featured multi-function systems because they combine a comprehensive range of records management functions.

Katuu (2012) identifies ECM as a technology that can be used in the management of records. Mello and Ngoepe (2020). Management of Electronic Records at Rand Water, a South African Water Utility Company. An ECM system is defined as a system to manage large volumes of unstructured information and to enable accessibility of content. The benefits of ECM include capturing, storing, index searching, collaborate sharing, process management, publishing, reusing, record archiving and more. Katuu (2012) expands to further modules of a typical ECM as portal, document management, web content management, digital rights management,

digital asset management, knowledge management and workflow.The author notes that the exact number and composition of the components of ECM is debatable. On his part, he identifies 10 fundamental components of ECM as: document management, records management, workflow or business process management, collaboration, portal, knowledge management, imaging, digital asset management, digital rights management, and web content management.

For Ambira (2016), the systems for managing electronic records are many and varied. First, we have Document Imaging Systems (DIS). This system enables scanning of records through document scanners, indexed based on a unique value or set of values and stored on electronic storage media for access or preservation, for example, Kodak Alaris. Second, there are Electronic Document Management Systems (EDMS) which is a full-featured system designed to handle the complete document lifecycle from capture (and not creation) of the records to metadata description, to approval, storage and dissemination of the document. Examples of EDMS are: docstar, OpenKM, Globodox and opendocman. Third, we have Electronic Records Management Systems (ERMS) that is purely dedicated to management of documents classified as records. For example, Knowledge Repository Information System (KRIS).

The fourth system for managing electronic records as identified by Ambira (2016) is Electronic Document and Records Management Systems (EDRMS). This system combine capabilities of both EDMS and ERMS, for example Total Records and Information Management (TRIM), Live Link and e-Docs, and FileNet. Fifth, we have Digital Repositories (DRs) which are designed to primarily provide storage of digital content. For example, Dspace, Eprints and Fedora. Finally, Ambira (2016) identifies

Content Management Systems (CMS) that's much more focused on collaboration and sharing of information.

One of the current technological application in records management is cloud-computing which involves the delivery of computing resources and services over the internet. Chikomba (2018) acknowledges that cloud-based storage provides more secure document backup and recovery. According to Kibe (2017), cloud computing offers benefits to records management. These benefits include faster speed of delivery information, provision of huge storage space, cost saving, enhanced accessibility, better centralization, increased flexibility, having access to records even in time of disaster, and improved interaction with the user community. However, Kibe (2017) indicates that many public organizations in Kenya are adopting cloud-based services without considering their negative impact such as security issues.

Focusing on ECM, Katuu (2012) notes that its implementation is divided into three phases as presented in Figure 2.3. First, pre-selection phase involving activities undertaken prior to considering which ECM application to adopt in an organization. For instance, analyzing business and technological analyses and assessment of information management. Second, pivotal stage focuses on the selection and installation of the ECM application. Some of the activities in this phase include: development of user and system requirements, the process of calling for and choosing bids and eventual rollout processes. Finally, post-selection phase covers the activities undertaken after the ECM application is installed so that it continues working for the benefit of the organization.

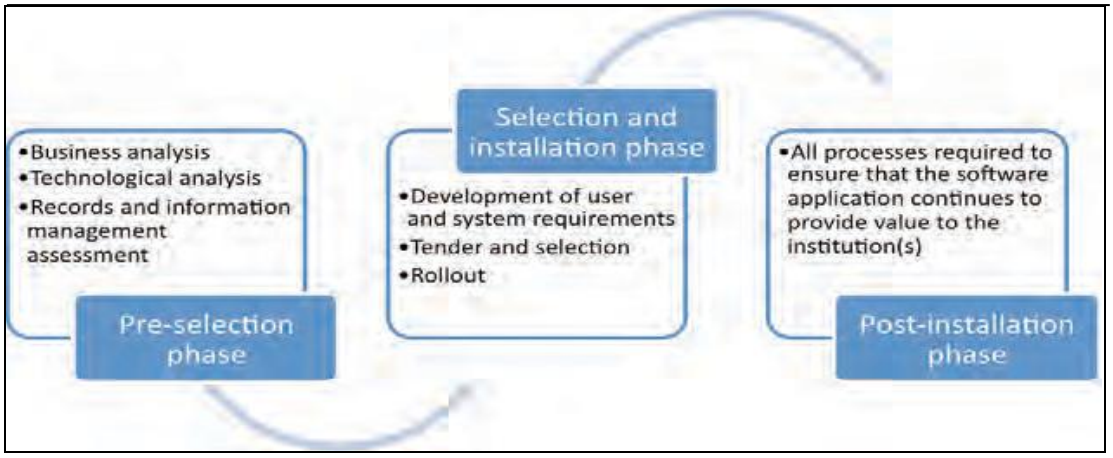

Figure 3: The Three Phases in ECM Implementation (Source: Katuu, 2012, p. 468).

Abuki (2014) conducted a study on the role of records management in public service delivery in Kisii County Government headquarters, Kenya. It was found out that records management supports efficiency and effectiveness in service delivery in many ways. For instance, the documentation of policies, procedures, rules and regulations that inform service delivery. According to the 2010 Constitution of Kenya in, Chapter 13, the values and principles of public service apply to public service in all State organs in both levels of government; and all State corporations.

Nyamwamu (2018) conducted a study on records management practices in the administration of public institutions in Kenya by focusing on the Kenya Reinsurance Corporation Limited. The study concluded that records management is a critical element in organizational administration, risk management, auditing, and financial accountability. Through effective records, impending risks can be identified, measured, and mitigated before they occur. While studies on records management in Kenya have been conducted which identify records computerization, there remains a knowledge gap especially regarding research on parastatals in Kenya's energy sector

such as REA. This study, therefore, sought to determine the level of computerization of records at REA and its impact on its service delivery.

An investigation into the management of records in the public sector of Lesotho by Sejane (2004) revealed that most agencies lacked adequate IT infrastructure such as computers, microfiche readers and scanners among other requirements. It was also indicated that lack of IT infrastructure could potentially hamper registry offices from fully exploiting IT resources for recordkeeping. Chikomba's (2018) research on the management of digital records in selected financial services parastatals in Zimbabwe identifies the following impediments: absence of enabling legislation; absence of standards, policies and procedures; shortage of skilled personnel; technological obsolescence, and absence of necessary infrastructure and resources.

Agreeing with foregoing, Asogwa (2012) acknowledges that there are so many challenges facing the management of digital records. For instance, the absence of records management policies and guidelines, standards, proper and adequate infrastructure, technological obsolescence, and skilled personnel. According to Iwhiwhu (2011), most of the challenges encountered in managing records, particularly electronic records border on technology obsolescence, inadequate trained personnel, policy formulation and implementation, etc.

2.6 Strategies to Enhance Sound Records Management

Records management has long been seen as the graveyard of information i.e. a place to store documents and records that have passed their sell by date. New technology has changed the picture. The corporate record becomes the corporate memory, capable of informing and influencing everything that is done. Records need to be recognized as a vital and reusable asset, a source of content, context and knowledge,

hence knowledge management, information management and information technology (Mutai et al., 2017).

Corporate memory is about how organizations learn from what they have done before, how they avoid re-inventing wheels, and how they build upon best practices. It is quite simply concerned with how organizations organize their most vital asset, which is information, and how they harness the skills and expertise of their most vital resource, which is their people (Yusof & Mokhtar, 2015).

There has been a great deal of concern about the appropriate role and scope of the records management function in government and business organizations. For many years records management was equated with paperwork and paper management. As such, the records management function was considered a necessary evil that was conducted in the background of organizational life. However, the role of records management in an organization has been significantly influenced and shaped by innovations in computer and telecommunications technologies (Ngoepe & Ngulube, 2014).

The service provided by records management is vital to any organization and to every information-using employee in it. Its primary function is to facilitate free flow of records in an organization, thereby ensuring that information is available rapidly where and when it is needed (Zam & Samsudin, 2014). It is important that organizations integrate records management more effectively with other information management functions in an organization so that records management becomes a strategic management function to reach a competitive advantage (Sundqvist & Svärd, 2016). Given the pace at which records are being produced and disseminated electronically, there should be linked interoperability between the records

management function and IT function as a key enabler. Information technology in this regard is viewed as a tool that enables records management to fulfil functions such as easy access, dissemination and cost reduction. In order to fulfil their strategic role within an organization, records managers need to be aware of the organization's objectives, associated legal and regulatory requirements, daily business practices and generation or use of information (Otu et al., 2014).

Furthermore, Sundqvist and Svärd (2016) emphasized that the records management strategy needs to be closely aligned and interwoven with strategies for content management, knowledge management and Web publishing. Good records management systems are essential to support financial management and accountability. Records management therefore ensures an organization's ability to function effectively and to provide evidence for accountability and transparency (Otu et al., 2014). Corruption has become a significant driver in the demand for accountability in organizations. There is a direct relationship between internal regulation and the more complete and accurate recording of decisions and actions. Records provide evidence of compliance with regulations; records management rules provide the guarantees that the evidence is captured in a system and is readily available (Duffus, 2016).

When corruption occurs, records should provide the evidence needed for successful prosecution of the wrongdoers. Good records management has a deterrent effect, which is a preventative, cost-effective alternative to prosecution. The existence of records management assists organizations in exposing corruption and fraud when those occur in an organization (Marutha, 2016).

Various studies conducted on records management in Kenya provide recommendations that can enhance sound records management. For instance, Mwangi, Ng'etich, and Ochichi (2017) conducted a mixed methods research examining records management practices for improved service delivery in Laikipia County Government in Kenya. Using questionnaires and face-to-face interviews, data was collected from 101 staff directly involved in records management in the county. The research makes several recommendations to improve records management in the county under study. First, the county government should formulate records management policies to guide the officers in the management of records. Second, the researcher recommendation the digitization of records in Laikipia County Government for efficient and improved service delivery. Lastly, the county government should work closely with the KNADS in the disposal of its records.

Njeru (2018) conducted a study on the evaluation of records management practices at the PSC of Kenya**.** The study adopted a mixed research method in which data was collected policy makers, policy implementers and operational staff at PSC using interviews and questionnaires. In its recommendations, the researcher noted that there was need for PSC to develop an operational framework for effective and efficient records management. It was also recommended that PSC formulates institutional policies guidelines and regulations for records management. Finally, the research recommended that PSC should endeavor to provide basic records management skill to staff through regular training.

For Abuki (2014) sound records management at the Kisii County Government headquarters need to be improved. First, through the development and implementation of records management policies, standards, guidelines and procedures. This should be

done in consultation with KNADS. Second, the research recommends the automation of records management services at Kisii County Government headquarters. Third, there is need to put in place training programmes for records management personnel. Fourth, implementation of records management awareness programs for non-records management staff. Finally, the study recommends for an implementation of a records management disaster management programme.

It is evident that the recommendations made for improving records management in some of the public sector organizations studied focus on non-technological resources. Similar recommendations are also considered in studies in Ethiopia and Nigeria. Mahammed (2019) assessed the impact of records management on organizational performance in selected government organizations in Harari Regional State, Ethiopia. The study focused on Urban Development and Construction Bureau, Supreme Court and Cultural, Heritage and Tourism Bureau of Harari Regional State, Ethiopia. Some of its recommendations focus on developing and implementing clear records management policies, standards, guidelines and procedures; staff awareness of the foregoing; and upgrading of staff skills in records management through formal and informal trainings. The study also recommends the implementation of integrated records management programmes, specific budgetary allocation for records management by the government; putting in place disaster plans and security measures for records management; adoption of ICTs in the management of records. Despite the foregoing in Kenya, there remains limited literature on records management practices in the public sector in the energy sector of Kenya under which REA is. This is a knowledge gap that this study sought to bridge.

2.7 Research Gap

Based on the reviewed literature, there exists a research gap on records management practices especially in the public sector agencies in the energy sector in Kenya such as REA. While the literature provided a good basis for information for the study, it had gaps as it did not elaborate enough on the status of records management practices in the energy public sector agencies. This underpins why this research focused on examining records management procedures at REA and the non-technical infrastructure in the Authority to support the records management function.

Computerization and in general ICT applications in records management remains an area of focus. The literature reviewed focuses on this area but not so adequately as it applies to the public sector agencies in Kenya's energy sector and its impact on service delivery. Considering this and taking into account the importance of service delivery in the public sector, this study sought to determine the level of computerization of records at REA and how it has impacted on service delivery in the Authority. The literature review reveals strategies adopted by other public sector agencies in Kenya and other African countries. However, none of those agencies studied was in the public sector in the energy sector. To bridge this gap, this research focused on REA. By focusing on assessing records management practices at REA, this study has proposed strategies that can help enhance sound records management in the Authority.

2.8 Chapter Summary

The study reviewed a number of literature sources that relate to strategies that can help to enhance records management in an organization. The literature has provided a good basis for information for this study that can help draw conclusions based on the

unique business mandate and operating environment of REA and other institutions in general.Thus, the study sought to assess the current status of records management at REA with a view to proposing strategies to enhance records management in the institution. In doing so, the study illustrated how specific types of records contribute towards the implementation of programs and functions of REA hence trying to fill any gap(s) in knowledge of the existing literature.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology adopted in this study as guided by the objectives of the study. The chapter covers the research approach and design, target population, sample size and sampling procedures, data collection tools and methods, validity and reliability of the research instruments, data analysis and presentation, and ethical considerations. The chapter culminates with a summary.

3.2 Research Approach

Information Science (IS) is a very broad discipline which uses a wide range of constantly evolving research approaches (Togia & Maliari, 2017). Traditionally the most common research methods in IS are quantitative and qualitative (Oates, 2009). However, these two traditional research methods have been found to have limitations to particular IS research situations. This has resulted in the use of a MMR approach.

A quantitative study measures a phenomenon using numbers in conjunction with statistical procedures to process data and summarizes results. On the other hand, qualitative research is conducted in a natural setting and it is concerned with viewing experiences from the perspective of those involved and attempts to understand why individuals react or behave as they do (Creswell, 1994).

Mixed methods research is a procedure for collecting, analysing and mixing or integrating both quantitative and qualitative data at some stage of the research process within a single study (Creswell et al., 2011). Guided by the nature of this study, its research objectives and questions, both qualitative and quantitative data was collected.

This study, therefore, adopted a research approach combining both quantitative and qualitative methods. The study used a MMR approach.

3.2.1 Quantitative Research Approach

A quantitative approach to research is characterized by the heavy use of statistical methods. Kombo and Tromp (2006) observe that quantitative research relies on the principle of verification that is, confirmation, proof, corroboration and substantiation. Unlike qualitative studies, quantitative research does not consider values, interpretation and feelings since these are based on the idea that knowledge emerges from what can be proven by direct observation. The quantitative research approach seeks to establish the cause- and-effect relationship by focusing on measurements.

A quantitative research approach is appropriate when the research incorporates statistical elements designed to quantify the extent to which a target group is aware of, think of, and believes in; frequencies are sought to explain the meanings, control of approach needed to allow for discovery of the unexpected and in-depth investigation of particular topics; data analysis is mainly statistical.

Saunders et al. (2003) point out that quantitative research is based on meanings derived from numbers. Data collected are in numerical and standardized form and analysis is carried out through the use of diagrams and statistics. Frankfort- Nachmias and Nachmias (1996) observe that quantitative research is deductive with researchers dealing directly with operationalization, manipulation of empirical variables, and prediction of testing. Unlike a qualitative study, it places great emphasis on methodology, procedure and statistical measure of validity. The methodology, procedure and statistical measure of validity help show a clear progression from

theory to operationalization of concepts from choices of methodology and procedures to the data collected from statistical tests to findings and ultimately conclusions.

3.2.2 Qualitative Research Approach

Kombo and Tromp (2006) observe that qualitative research does not make use of statistical techniques but rather employs such flexible and interactive methods as interviews, focus groups, observation, texts, and audio or video recordings. Qualitative research is not built upon a unified theory or methodological approach and can adopt various theoretical stances and methods. Qualitative research is conducted in a natural setting and is concerned with viewing experiences from the perspective of those involved and attempts to understand why individuals react or behave as they do (Creswell, 2011).

Silverman (2005) asserts that qualitative research design often operates with a relatively small number of cases. The research often sacrifices scope for details found in precise particulars of such matters as people's understanding and interactions. The purpose of qualitative research is to contextualize and interpret results using induction to deprive possible explanations based on observed phenomena. Most qualitative researchers believe that qualitative methods can provide a deeper understanding of social phenomena than would be obtained from purely quantitative data.

Qualitative research is based on the idea that researchers must gain an emphatic understating of social phenomena and must recognize the historical dimension of human behaviour and subjective aspects of human experiences. Researchers attempt to do this by getting to know the persons involved and their values, rituals, symbols, beliefs and emotions (Bryman, 1988).

Saunders et al. (2003) note that qualitative research is based on meanings expressed through words. The data collected in qualitative research is in a non-standardized form that requires classification into categories. The analysis of data is usually done through the use of conceptualization. Qualitative research is usually carried out in a natural setting with field research and participatory observations used as data collection strategies.

According to Frankfort- Nachmias and Nachmias (1996) data analysis in qualitative field research is an ongoing process with researchers formulating hypotheses or research questions and taking notes of important themes throughout the studies. As the research progresses, some hypotheses or research questions are discarded, others are refined and still others are formulated. Qualitative studies are inductive since they show how the observations prompted the researcher to analyse and isolate variables and they can be developed into theories.

Kombo and Tromp (2006) observe that qualitative research designs are most appropriate when; the subject matter is unfamiliar, a researcher wants to relate particular aspects of behaviour to the wider context, meaning rather than frequencies are sought, a flexible approach is needed to allow for the discovery of unexpected and in-depth investigation of particular topics and one wants to study some issues.

3.2.3 Mixed Methods Research Approach

This research adopted the MMR approach. This approach involves collecting, analysing and mixing or integrating both quantitative and qualitative data at some stage of the research process within a single study (Creswell et al., 2007). In the MMR approach, the philosophical assumptions guide the research inquiry at a broader level. The MMR approach helps to resolve the limitation of using a single method

design to understand the research problem. The research questions, objectives and context must be the main drivers of the selection of MMR approach (Teddlie et al., 2009). These considerations were the guiding principles for choosing MMR in this study.

It is important to note that the selection of the method is based on the phenomenon's context. Huberman and Miles (2002) contend that entertaining the MMR rather than retaining a single method design helps quantitative and qualitative inquiries to inform each other in many important ways. As such, MMR is seen as valuable as it provides new ways of thinking about the world from a social and natural science research perspective.

The main issues to consider in MMR approaches are the timing and order of the methods in the study (Morse and Niehaus, 2009). The ordering can be simultaneous (same time) or sequential (different periods). Cresswell and Plano Clark (2018) assert that the typology of MMR designs has been changing over time, with authors giving different categories and terminologies to describe them. According to Cresswell and Plano Clark (2018), there are three core MMR approaches, namely explanatory sequential research, exploratory research, and convergent parallel mixed-method research.

In convergent parallel mixed-methods design, quantitative and qualitative methods are mixed to obtain the triangulated results. This approach seeks to collect different but complementary data on the research topic to best understand the study problem. In this design, two types of data sets (quantitative and qualitative data) are collected concurrently. Hereafter, the data is analyzed independently using quantitative and qualitative analytical approaches (Creswell and Plano Clark, 2018). By integrating the

two data sets, the researcher can get a complete picture of the issue being explored and validate one set of findings with the other (Creswell and Plano Clark, 2018).

Explanatory sequential design involves a two-stage process. Quantitative data is collected and analyzed in the first phase. Based on the results from the first phase, the qualitative phase is designed so that qualitative data is collected and analyzed (Creswell & Plano Clark, 2018). Finally, the data from the quantitative and qualitative phases is triangulated.

Exploratory sequential design is the opposite of explanatory sequential design. In this design, qualitative data is collected and analyzed in the first phase. Based on the results from the first phase, the qualitative phase is designed so that qualitative data is collected and analyzed (Creswell & Plano Clark, 2018). Finally, the data from the qualitative and quantitative is triangulated.

This study adopted the convergent parallel mixed-methods design, as the most suitable for achieving the research objectives. This is because both quantitative and qualitative data was required for assessing records management practices at REA, Kenya. Four stages in line with Creswell & Plano Clark (2018) were adopted in implementing the convergent parallel mixed-methods design in this study. First, the researcher concurrently collected both quantitative and qualitative data about the research topic using questionnaires and in-depth interviews respectively. Second, the researcher analyzed the two data sets separately and independently from each other using quantitative and qualitative analytic procedures. After the results of the two data sets were arrived at, the researcher reached the point of interface and this led to step three involving merging the results of the two data sets. In this step, the researcher compared the separate results in discussions in Chapter Four. Finally, the researcher

reached the interpretation stage. The researcher interpreted to what extent and in what ways the two sets of results converge or diverge from each other, relate to each other, and/or combine to create a better understanding in response to the study's overall purpose.

The use of convergent parallel mixed-methods design arose from its inherent advantages or benefits such as efficiency. This design allows the researcher to collect and analyze both quantitative and qualitative data concurrently and this saves the researcher's time and financial resources. The research design further makes it possible to directly compare participants' responses in an open-ended questioning format (in-depth interviews) with those from the closed-ended questioning format (questionnaire). This design thus gives a voice to the participants and still reports the statistical trends emerging from the responses. In this study, the integration of the two datasets was done during the concurrent analysis, with results from the two sets complementing and supporting each other. This provided a fuller picture of the results than could have been derived from a quantitative only, or qualitative-only study.

3.2.4 Justification for Using the Mixed Methods Research Approach

The MMR approach was preferred because it provided a holistic view of the systems, procedures and practices used in the management of records and archives at REA which was the focus of this study. The suitability of mixed methods research was based on the fact that some aspects of the research required quantitative methods, such as identifying individuals to interview based on the analysis of the numerical data, getting the number of respondents from the thirteen (13) departments while other aspects such as information about the records keeping systems, procedures and practices required qualitative methods. This was considered important as it helped to

improve the validity of the research through triangulation and convergence of multiple and different sources of information.

MMR was preferred because it removes the restriction of using only certain types of tools for data collection associated with a single study design or connecting several studies to reach an overall objective. Mixed methods give a voice to study participants and ensure that study findings are grounded in participants' experiences. The interdisciplinary nature of records management systems, procedures and practices means that it includes different disciplines and paradigms such as information communication technologies, archives, data and documentation management. This made it necessary to use the MMR approach.

3.3 Research Design

Research design is a blueprint for the collection, measurement and analysis of data. It is used to *s*tructure research and show how all of the major parts of the research project work together to address the central research question (Kombo & Tromp 2006). In this study, a descriptive case survey design was used. The researcher chose REA as the case study to gain an in-depth understanding of records management practices within the institution. The researcher collected data from a sample of individuals in REA through a survey to understand the case in a broader context.

A descriptive case survey design was preferred because besides describing the state of affairs, it provided the research with measurement, classification, analysis, comparison and interpretation of data. It enabled the researcher to have a comprehensive and detailed view of records management systems, procedures and practices at REA. Secondly, the method enabled the researcher to gather information concerning the research participants' experience, attitudes, knowledge and opinion on

records management. A descriptive case survey enabled the research to investigate the relationship between records management systems, procedures and practices and the quality of records created and maintained by REA.

3.4 Target Population

According to Khan et al., (2011), population refers to an entire group of individuals, events or objects having common observable characteristics. The definition provided is further supported by the work of Sekaran and Bougie (2011), noting that population is a set of people, services, elements, events, groups of things or households that are being investigated. This definition ensures that the population of interest is homogeneous. The target population is the absolute population that the researcher would like to emphasize for this study.

The target population for this study encompassed 7 top level management, 18 middle-level management and 114 records management champions at the operational level at REA headquarters. The target population for this study is summarized in Table 1.

Table 1: Target Population

Area of Study	Sampling Stratification	Target Population
Rural Electrification Authority	Top Level Management (CEO, Authority Secretary and Chief Managers)	7
	Middle Level Management (Heads of Departments and Chief Officers)	18
	Operational level records management champions	114
Total		**139**

The top-level management for the target population of the study comprised one (1) CEO, one (1) Authority Secretary, and five (5) chief managers making a total of seven (7) respondents. Middle-level management comprised of seven (7) heads of departments and eleven (11) chief officers making a total of eighteen (18) staff

members. Records management champions at the operational level comprised one hundred and fourteen (114) staff members.

3.5 Sample Size and Sampling Procedure

Sampling is the process of selecting a section to represent the whole or a population. Sekaran and Bougie (2011) further define sampling as the process of selecting several individuals to represent the larger group or the population from which they are selected. Kombo and Tromp (2006) underscores the importance of selecting a representative sample from the target population. A target population is a systematic list of subjects, elements, traits, firms or objects to be studied. In addition, Upagade and Shende (2012) explain that sampling ensures that some elements of a population are selected as representative of the population. In determining the sample size, the formula by Yamane (1967) was used as follows:

$$n=\frac{N}{1+N(e^2)}$$

Key
N=Target population
n=Sample size
e=Level of precision (0.05)

The standard margin of error also referred to as level of precision or confidence interval, i.e. how much error to allow, and it could be 0.10, 0.05 or 0.01. In this study, 0.05 was used and the sample size was computed as follows:

$$n=\frac{139}{1+139(0.05^2)}=103$$

When the sample size of 103 was distributed proportionately to the top-level and middle-level management and the operational staff across all the 12 departments at REA, it yield an increase of three (3), resulting into the study's use of 106 as the final sample size. The sample size of 106 in Table 2 represents 76.3% of the total population of 139 staff members of the target population of the study. The sample size

was distributed through proportionate stratified sampling as per the number of staff at each level of management as demonstrated in Table 2. The sample size was stratified into three levels of management as summarized in Table 2. Five (5) and thirteen (13) top-level and middle-level management staff respectively were selected from a target population of seven and 18 respectively.

Table 2: Sample Frame and Sample size

Management level	Total Population	Sample Size	%
Top level management	7	5	4.7
Middle level management	18	13	12.3
Operational level records management champions	114	88*	83.0
Total	**139**	**106**	**100.0**

*Above 85 due to the use of the approximation rule of .5 being taken to the next higher number for the proportionate stratified sample allocations under each of the 12 departments at REA. The sample size is three (3) than the computed one of 103.

Table 3.2 shows that 88 operational-level records management champions were selected from a target population of 114. Within each stratum, the researcher used simple random sampling to select staff members to participate in this study. The researcher used the lottery method of simple random sampling technique.

3.6 Methods of Data Collection

Data collection is the process of gathering and measuring information related to the study variables in an established and analytical fashion that help in answering research questions, testing hypothesis and evaluating outcomes (Saunder, Lews, & Thornhill, 2009). Various data collection methods that differ along a continuum include quantitative and qualitative data collection methods. For this study, the main tools that were used were interviews and questionnaires. Questionnaires were used to collect data from records management champions at the operational staff level.

Interviews were used to collect data from top and middle levels of management staff in the Authority.

3.6.1 Questionnaire

The study used self-completion semi-structured questionnaires which were administered to records management staff at the operational level of management in the Authority. The researcher personally delivered questionnaires to this category of respondents. The respondents were given the freedom to answer questions at their own time, this brought out well-thought accurate answers. Another reason for the choice of this method was due to time constraints. Through this method a researcher can collect a large amount of data in a reasonably short space of time. The researcher used semi-structured questionnaires to give the respondents complete freedom to express their views and to get in-depth information on the topic of the research.

The questionnaire used in this study is presented in Appendix I. It is divided into five sections. Section A focuses on general information about REA's records management champions at the operational level of management. Section B covers records management procedures at REA. Section C focuses on non-technical records management infrastructure at REA and how it supports records management. Section D focuses on the level of computerization of records at REA and its impact on service delivery. Finally, Section E covers strategies to enhance sound records management at REA.

3.6.2 Interviews

Interviews were used in Phase 1 of data collection in this study. The interviews were used to collect qualitative data from the top-level and middle-level management in REA. The researcher booked appointments with this segment of participants to ensure

their availability and for a higher response rate. This method was preferred to collect data from this category of participants since interviews are useful in obtaining detailed information on an issue. In addition, the study needed to identify the policy and resource-related information about records management in the Authority and so, the interviews were deemed necessary for top and middle-level management. Two interview schedules were used to collect data from the top-level and middle-level management staff.

The interview schedules in Appendices II and III cover five sections. Section A and Section B in Appendix II and Appendix III focus on general information about REA's top-level and middle-level management respectively. Sections B to E in Appendices II and III bear the same headings. Section B focuses on records management procedures at REA. Section C covers non-technical records management infrastructure at REA and how it supports records management. Section D focuses on the level of computerization of records at REA and its impact on service delivery. Finally, Section E covers strategies to enhance sound records management at REA. The researcher used a digital audio recorder to record the interviews.

3.7 Data Analysis and Presentation

The quantitative and qualitative data obtained in this study was subjected to data analysis. This is the process of refining the collected data so that the same data can be meaningful in synthesis by making them relevant information (Saunder et al., 2009). Consistent with the convergent parallel MMR approach adopted in this study, the researcher analyzed the data from the questionnaires and interviews separately and independently from each other. The questionnaire data was predominantly quantitative while that from interviews was qualitative. The two data sets were then

merged together by the researcher comparing the results from the questionnaire with that from the interviews. Finally, the researcher interpreted to what extent and in what ways the two sets of results converge or diverge from each other, relate to each other, and/or combine to create a better understanding in response to the study's overall purpose.

The quantitative data was analysed using the Statistical Package for Social Sciences (SPSS) for Windows Version 21.0. SPSS statistical software was then used to analyse data. SPSS is capable of computing any quantitative data (Upagade & Shende, 2012). SPSS helped in faster data analysis as it automatically generated aspects such as tables.

Qualitative data was analysed thematically.

3.7.1 Analysis and Presentation of Quantitative Data

Quantitative data from the questionnaire was screened, edited, coded and captured before analysis. The completed questionnaires were scrutinized to check the level of accuracy of the data collected by keeping in mind all key information that was intended to be collected from the research. In addition, during this stage, consistency checking was done to ensure that the information recorded was in a constant flow. This helped to eliminate errors and remove unclear and ambiguous answers. The quantitative data from the questionnaires were coded. This process involved assigning numerical codes to the quantitative data in the completed questionnaires so that it could be entered into the statistical package used for data analysis. Hereafter, the quantitative data from the questionnaires were entered into SPSS for Windows Version 21.0.

The data entered into this SPSS for Windows Version 21.0 was then checked for any inaccuracies. The data was then transformed where necessary. For example, the researcher identified and coded any missing values, computed totals and categorized the data. The data were analysed through descriptive statistics such as frequency distributions and percentages and presented using tables.

3.7.2 Analysis and Presentation of Qualitative Data

The qualitative data obtained from the interview schedules were transcribed verbatim and then analysed thematically. Through thematic content analysis, the researcher identified emerging issues and patterns from the dataset. The thematic analysis allowed the researcher to identify the participants' views, opinions and knowledge of records management practices at REA. According to Braun and Clarke (2006), this method provides a flexible method for data analysis, presentation and interpretation.

The research applied the six-step process approach by Braun and Clarke (2006). Step 1 involved the researcher familiarizing himself with the transcribed data by reading and re-reading the transcripts to ensure that they reflected an accurate representation of what was given out by the participants in the interviews. Initial codes based on early impressions of the data were noted by the researcher.

In Step 2, initial codes for the qualitative data were generated with descriptive labels written in the right-hand column of the typed transcripts. These codes were used to identify the features of the data from the interviews relevant or aligned to the research objectives. The data relevant to each code was then coded. Step 3 entailed examining themes in the dataset from the interviews, with codes derived in Step 2 being collated into themes as per the research objectives. Descriptive statements were used to represent the themes. Codes were collated into potential themes as per the research objectives. In Step 4, the preliminary themes were reviewed by reading and re-reading

the transcripts and checking them against the coded extracts and the dataset. The reviewed themes were then reviewed in Step 5. According to Braun and Clarke (2006), this stage involves a detailed analysis to refine and define each theme and generate informative names for each. Lastly, the researcher prepared a final report on thematic content analysis. The data from the interviews are presented with narrative descriptions, summaries, and data extracts of key quotes.

3.8 Validity and Reliability of Research Instruments

The study assured the validity and reliability of data collection tools and methods in the ways described in the sections that follow.

3.8.1 Data Validity

The researcher ensured that the tools were valid in the sense that they measured the content areas that needed to be measured to come up with true results. To ensure this was done, the researcher revised questionnaires several times after consulting experts in the area of study. The researcher also pre-tested the questionnaires before using them by piloting the study. Three pilot studies were conducted among 14 members of staff at REA. This represents 10.1 percent of the target population of the study.

The first pilot study involved top-level management where the Chief Manager of Procurement & Supplies Department was involved. The second pilot study involved two middle-level management staff comprising Manager-Communications Department and the chief officer of the Human Resource Department. Finally, 11 records management champions at the operational level were involved in the third pilot study. All those involved in the pilot studies were excluded from the final study. The pilot study was used to check on the flow of questions in the data collection instruments, determine participants' understanding of questions, and assess the

structure of the questions and how long it could take to collect the data from each participant. Using the feedback from the pilot study, the researcher edited the data collection tool by making it accurate, clear, and usable.

3.8.2 Data Reliability

Reliability refers to whether a measurement instrument can yield consistent results each time it is applied (Bartlett, Kotrlik & Higgins, 2001). In this study, the researcher applied a pilot test of data collection instruments to determine their reliability. The pilot study was conducted to determine if the instruments were able to generate consistent data. Data collection tools were administered to respondents at REA. Corrections were done on any element of inconsistency before the data collection exercise commenced.

3.9 Ethical Considerations

The researcher obtained a research authorization permit from the National Commission for Science and Technology and Innovation [NACOSTI] (Appendix IV). Further, the researcher sought official consent from REA management before undertaking the research (Appendix V). Participants also signed an informed consent forms to indicate their willingness in taking part in this study (Appendix VII & VIII). To ensure confidentiality, the researcher did not require respondents to write their names on the data tool. This ensured that the respondents were not harmed or victimized. The participants also assured that the information collected was kept confidential and used only for research. This made respondents feel free to give honest and complete information and even divulge information considered to be confidential or sensitive. For anonymity, the participants were given the codes R1 to R7 in chapter four for the sake of anonymity.

3.10 Chapter Summary

The chapter covers research methodology where a mixed methods approach was provided as the research design for the study. The target population was also covered where REA's top-level management; middle-level management and operational staff were the study's population with 139 as the target population. The sample size of 103 respondents was also provided together with the sampling procedures that helped in getting a representative sample. Data collection methods were also covered where questionnaires were the main instruments of data collection supported by interviews. Confidentiality and informed consent were sought and given by the respondents as the ethical considerations of the study. Statistical data analysis using SPSS was used in the analysis of data.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter covers the analysis and presentation of data that was collected from the top level management, middle level management and the operational staff at REA. The data was collected using interviews that were conducted to the middle and top management in the Authority while semi-structured questionnaires were administered to records management champions at the operational level.

4.2 Response Rate

Data was collected from 98 participants giving a response rate of 92.5 percent. According to Creswell (2009), a response rate of over 75 percent is good enough to obtain objective results in any study. Hence, the response rate for this study was good enough to help attain its aim and objectives. Table 3 indicates that three (60%) top level managers and seven (53.9%) middle level managers were interviewed. On the other hand, 88 (100%) operational staff returned their questionnaires. This means that all cadres of management were represented in the study.

Table 3: Response Rate

Data Collection Tools	Sample Segment	Sample Size	Response Frequency	% Response Rate
Interviews	Top Management	5	3	60.0
	Middle Level Management	13	7	53.9
Questionnaire	Operational Staff	88	88	100.0
Total		**106**	**98**	**92.5**

The operational staff who participated in this study were drawn from all the 12 departments of the Authority. As illustrated in Table 4; 2.3, 4.5, 12.5, 18.2, 10.2, 17.0, 3.4, 6.8, 5.7, 6.8, 10.2 and 2.3 percent represented Corporate Planning, Legal,

Finance, Construction, ICT, Procurement & Supplies, Internal Audit, Communications, Design, Human Resource and Administration, Renewal Energy and, Research and Development departments respectively. The difference in departmental representation was attributed to proportionate stratified sampling used in this study. Therefore, departments with more staff had a higher number of participants compared to those with low staff numbers. Overall, respondents of the study indicate a fair representation of the entire Authority as all departments were represented.

Table 4: Departmental Representation of Respondents at Operational Level

Departments	Frequency	Percent
Corporate Planning	2	2.3
Legal	4	4.5
Finance	11	12.5
Construction	16	18.2
ICT	9	10.2
Procurement	15	17.0
Internal Audit	3	3.4
Communications	6	6.8
Design	5	5.7
HR & ADM	6	6.8
Renewal Energy	9	10.2
Research & Development	2	2.3
Total	**88**	**100.0**

Importantly, it was significant for the study to establish work experience of its respondents to help establish if they had the requisite experience to provide reliable information for the study. As indicated in Table 5, it was determined that 34.7 percent had a working experience of zero (0) to five (5) years, while 65.3 percent had working experience of five (5) to ten (10) years. This was ascribed to the fact that REA as a state corporation was established under Section 67 of the Energy Act No. 12 of 2006 and started its operations in 2007. Therefore, majority of the employees were employed after the conception of the Authority. Hence, it was deduced that the study

comprised of experienced respondents that were suitable to provide reliable information on matters of records management in the Authority.

Table 5: Work Experience

Work Experience	Frequency	Percentage
0-5 years	34	34.7
5-10 years	64	65.3
Total	**98**	**100.0**

4.3 Records Management Procedures at REA

The first objective of the study sought to examine records management procedures currently in place in REA. The findings of this objective are presented in the subsequent sections.

Availability of Records Management Procedures

To be able to ascertain this, it was imperative for the study to determine if records management procedure existed in the Authority. As illustrated in Table 6, 14.78 percent noted that there was a records management procedure while 77.27 noted that such a procedure did not exist, while 7.95 were not aware of any existence. It was ascertained through the interview with the chief manager R1 that the Authority did not have a records management policy in place as operations under this function was largely non-standardised.

Table 6: Availability of Records Management Procedures

Availability of RM…	Frequency	Percentage
Yes	13	14.78
No	68	77.27
Don’t Know	7	7.95
Total	**88**	**100.00**

On the other hand, both middle level management and the top management pointed out in their interviews that the Authority did not have a records management

procedure manual and that the resources and facilities provided for records management in the Authority were not adequate. In an interview with one of the managers (R2) on existence of the records management procedure manual, he was quoted as saying, "*a number of functions have procedure manuals to guide their processes but records management which is a critical function too had not developed one to guide its processes*".

Quantitative data from operational level staff

In addition, the study sought to determine if there existed documented procedures manual that guide management of records in the Authority. Hence when a question was posed if there were such documented procedures; the findings were as illustrated in Table 7 where 43.2 percent acknowledged that there existed procedures for records management while 37.5 percent noted there were no such procedures. On the other hand, 19.3 percent did not know if such procedures existed. This indicated that even if the records management procedures existed, a sizeable number of the staff in the Authority were not aware of these procedures. Based on the findings, it was deduced that the Authority did not have a procedure manual to guide in its records management processes. This implied that records management processes in the Authority was not standardised hence posing risks of inconsistencies.

Table 7: Presence of Documented Records Management Procedures Manual

Presence of…	Frequency	Percentage
Yes	38	43.2
No	33	37.5
Don't Know	17	19.3
Total	**88**	**100.0**

4.4 Non-Technological Records Management Infrastructure

To address the second specific objective of the study, a number of questions were asked and responses presented in the following sections.

4.4.1 Records Management Staffing

To begin with, the study sought to determine records management knowledge and skills that existed in the Authority. The operational staff were therefore asked if they possessed indicated records management knowledge and skills and their responses are indicated in table 8. The results indicated that majority of the officers in the Authority had skills in records storage at 53.4 percent while skills in retrieval showed a lower 21.6 percent. On the other hand, just a few officers had skills and knowledge in records classification and filling at 6.8 percent and 18.2 percent respectively.

Table 8: Records Management Knowledge and Skills in the Authority

RM Knowledge and…	Frequency	Percentage
Skills In Records Classification	6	6.8
Skills In Filing	16	18.2
Skills In Storage	47	53.4
Skills In Retrieval	19	21.6
Total	**88**	**100.0**

From the interviews with the top and middle level management, the respondents indicated that the Authority did not have adequate number of staff trained in records management. One manager R3 said, “The Authority has only two staff trained in records management, and the two are stationed at the headquarters, hence they cannot effectively manage records management activities in the entire Authority”.

4.4.2 Level of Support to Records Management Personnel in the Authority

Importantly, the study sought to determine the level of Authority’s support of the records management function through provision of records management resources.

Thus, a number of questions were asked to respondents that sought to help understand this support on a number of records management requirements. While using a rating scale

of one (1) for more sufficient, two (2) for sufficient, three (3) not sufficient and four (4) for not at all, the results were as indicated in table 9 below. On using descriptive statistics, Authority's budget support had a mean of 2.64, equipment support at a mean of 2.55, capacity building support at a mean of 2.53, implementation of the scheme of service for records management at a mean of 2.78 and work environment at a mean of 2.57. All the mean were rounded off to their nearest whole value of 3.00 which was equivalent to not sufficient. In an interview with the chief manager R4, she was quoted to have said, "*Records management as a function has not been a budget item in the Authority's budget allocations but has always been covered under Human & Administration Department*". It was thus inferred that the Authority was not providing sufficient support for all records management aspects enquired on.

Notably, all respondents in the top and middle level management agreed that records management had not been well facilitated. For instance, one manager R5 pointed out that the scheme of service for records management personnel in the Authority was limiting as they are at a lower cadre and that they are not properly facilitated in capacity building. In addition, some chief managers R6 pointed out that the general support for records management was not adequate as it was even constrained with proper records storage facilities.

Table 9: Level of Authority's Support for Records Management Requirements

Level of…	N	Minimum	Maximum	Mean	Standard Deviation
Budget Support	88	1.00	3.00	2.6477	.64398
Equipment Support	88	1.00	3.00	2.5568	.69245
Capacity Building	88	1.00	3.00	2.5341	.69396
Scheme of service for RM	88	1.00	3.00	2.7614	.50274
Work Environment	88	1.00	3.00	2.5795	.69019
Valid N (list wise)	88				

4.4.3 Records Management Policy

The study sought to know if there was a records management policy in the Authority. When this question was posed to the operational staff, they gave varied responses as indicated in Table 10. As illustrated in the table, 67.0 percent who were the majority of the respondents noted that the Authority did not have a records management policy while only 5.7 percent acknowledging that there was a records management policy. On the other hand, 27.3 percent did not know whether the policy existed or not.

Table 10: Availability of Records Management Policy

Availability of RM Policy	Frequency	Percentage
Yes	5	5.7
No	59	67.0
Don't Know	24	27.3
Total	**88**	**100.0**

However, from two interviews the respondents were of the view that a policy existed but had not been implemented at the time of the study. This is illustrated by response from the chief manager R7 who had this to say, "*The Authority had developed a records management policy but was pending approval by both the Authority's Board and the Management".* This explains the high percentage of the operational staff who thought that the policy was inexistent. As a result of lack of clear policy framework for records management function, records management activities were prone to inconsistencies.

4.5 Level of Records Computerization at REA and its Impact on the Authority's Effectiveness in Service Delivery

Objective number three (3) of the study sought to determine the level of records computerization at the Authority and its ultimate impact on effectiveness. Hence, when the operational staff were asked whether the Authority had incorporated computerization or ICTs into its business processes, all respondents were affirmative that the Authority had incorporated computerization or ICTs in its business processes although in a partial manner. This was also affirmed by all top management who were interviewed. However, from the interviews with the middle level management, it was affirmed that records management systems had not been computerized. One of the respondents, a manager R8 had this to say, "*The automated systems do not have records management modules which can be used for records management*". This implied that although other Authority'' functions were computerized, the Authority had not considered computerizing its records management function

4.5.1 Effects of Computerization on Records Management Services

Further, the study sought to establish how computerization had affected records management services in REA. The responses given are summarized in Table 4.9.

Table 11: Effects of Computerization on Records Management Services

Effects of…	Frequency	Percentage
Retrieval	19	21.6
Privacy	12	13.6
Security	11	12.5
Control of records	10	11.4
Traceability	20	22.7
Storage	16	18.2
Total	**88**	**100.0**

As illustrated in Table 11, computerization had a number of effects on records management services. This included retrieval which was highlighted by 21.6 percent

of the respondents, privacy by 13.6 percent, security by 12.5 percent, control of records by 11.4 percent, traceability by 22.7 percent and storage 18.2 percent of the respondents. This affirmed that computerization had effects on the records management services.

For further insights, Chief Managers R9 were asked during the interviews to identify future plans for automating records management in the Authority. All were in agreement that the Authority was still laying grounds for the exercise. For instance, one respondent R10 said, “the Authority has records management policy which ought to be approved and implemented. The policy will be instrumental in computerisation of records management processes”. This affirmed that although the Authority had not automated its records management processes, it was undertaking proper records management measures such as ensuring that there was a policy framework that will guide in the automation process.

4.5.2 Impact of Records Management Computerization on Service Delivery and Effectiveness

In addition, the study sought to determine how records computerization impacted on service delivery and effectiveness at REA. With respect to this, when the question was put to the respondents, the results were as indicated in Table 12. As illustrated in the table, it was determined that computerization of some records management processes had resulted to elimination of duplications, improved effectiveness and efficiency of service provision, and improved turnaround time of processes as 44.3, 42.0 and 13.6 percent of respondents pointed to these impacts respectively.

Table 12: Impact of Records Management Computerization on Service Delivery and Effectiveness

Impact of RM…	Frequency	Percentage
Eliminated Duplications	39	44.3
Improved Effectiveness & Efficiency	37	42.0
Improved turnaround of processes	12	13.6
Total	**88**	**100.0**

4.5.3 Challenges Associated with the Application of ICTs in Records Management

To understand more on the impact of ICT application on records management, respondents were asked to identify challenges experienced in the application of ICTs in regard to records management in the Authority. Their responses are summarized in Table 13. As indicated in the table, it was determined that there existed a number of challenges experienced in the use of ICTs in records management. Security risks was widely pointed out by 44.3 percent of the respondents, constrained infrastructure was pointed out by 25.0 percent, low human capacity by 12.5 percent, resistance to change by 10.2 percent and lack of institutional policies and guidelines by 8.0 percent of the respondents. From the foregoing, it would seem that although ICT had been incorporated in the management of records in the Authority, there existed a number of challenges that hamper its application thus a need to address such challenges.

Table 13: Challenges experienced in the use of ICTs in Records Management

Challenges experienced…	Frequency	Percentage
Lack of institutional policies & guidelines	7	8.0
Security risks	39	44.3
Low human capacity	11	12.5
Constrained infrastructure	22	25.0
Resistance to change	9	10.2
Total	**88**	**100.0**

4.5.4 Possible Solutions to Challenges experienced in the use of ICTs in Records Management

It was imperative to establish possible solutions for challenges experienced in the application of ICTs in regards to records management in the Authority. Therefore, when a question on possible solutions was posed to respondents, the outcome was as illustrated in table 14 below. As indicated in the table, it was highlighted by the respondents that the Authority need to strengthen its ICT security controls, expand its ICT infrastructure, develop its human capacity, develop and implement its ICT institutional policies and guidelines, and change management strategies. These solutions were mentioned by 43.2, 25.0, 13.6, 9.1 and 9.1 percent respectively.

Table 14: Possible Solutions to Challenges experienced in use of ICTs in Records Management

Solutions to challenges…	Frequency	Percentage
Develop and implement Institutional Policies & guidelines	8	9.1
Strengthen Security controls	38	43.2
Develop human capacity	12	13.6
Expand ICT infrastructure	22	25.0
Change management strategies	8	9.1
Total	**88**	**100.0**

4.5.5 Challenges facing Records Management in the Authority

To help recommend strategies to enhance records management in the Authority, the study sought to determine the challenges associated with the management of records in the Authority. Hence, when the study posed a question to its respondents on what were the challenges associated with management of records in the Authority, the responses were as indicated in table 15 below. It was determined that inadequate funding, high staff turnover, inadequate cooperation, inadequate human capital, absence of supportive policies and procedures were the challenges facing records management in the Authority by 35.2, 11.4, 8.0, 30.7 and 14.8 percent of respondents

respectively. Hence, it was deduced that the Authority was faced by numerous challenges in its records management processes.

Table 15: Challenges facing Records Management in the Authority

Challenges facing RM…	Frequency	Percentage
Inadequate funding	31	35.2
High staff turnover	10	11.4
Inadequate cooperation	7	8.0
Inadequate human capital	27	30.7
Absence of supportive policies & procedures	13	14.8
Total	**88**	**100.0**

4.6 Strategies to Enhance Sound Records Management at REA

Importantly, the study sought to determine the strategies that can be adapted so as to enhance records management in the Authority. When a question on records management strategies was posed to the study's respondents, the results were as indicated in table 16 below. As indicated in the table, adequate funding of records management activities was as a strategy to 39.77 percent of the respondents, 17.05 noted that employment of enough records management staff will be a helpful strategy. In addition, awareness and sensitization programs for records management were at 13.64 percent as an avenue that can be explored as an important strategy. Application of ICT and development and implementation of supportive policies and procedures in records management were also by 11.36 percent and 18.18 percent respectively. Notably, when the respondents were asked on how management of records can be improved in the Authority, all of them gave the above strategies as ways that can be explored by the REA in improving its records management.

Table 16: Strategies to Enhance Sound Records Management Practices in REA

	Frequency	Percent
Adequate funding of RM Activities	35	39.77
Employment of enough RM Staff	15	17.04
Awareness, sensitization of RM	12	13.63
Application of ICT in RM	10	11.36
Develop and implement supportive policies & procedures	16	18.18
Total	**88**	**100**

4.7 Chapter Summary

Assessment of records management practices at REA as presented in this chapter determined that there existed a number of records management deficiencies that make the records management function to be ineffective. For instance, it was established that the Authority did not have a records management policy and procedures, it lacked standardized records classification scheme and have inadequate qualified records management personnel. These gaps contributed to poor management of the Authority's records. Therefore, it was imperative that such challenges needed to be addressed to improve records management services. This can be achieved through adoption of an organization wide records management policy and procedures, development of a standardized records classification scheme, employment of adequate qualified records management personnel and integration of ICT in the records management function.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study's aim was to assess the current state of records management at REA with a view to proposing strategies to enhance records management at the institution. To achieve this, the study was guided by four specific objectives which were to: examine records management procedures currently in place at REA; investigate the non-technical records management infrastructure at REA and how it supports the records management function; determine the level of computerization of records at REA and how this has impacted the Authority's effectiveness in service delivery; and propose strategies to enhance records management at REA. The data was collected using semi structured questionnaires administered to operational staff while interviews were conducted with the top and middle levels management in the Authority. This chapter presents a summary of the findings, conclusions and recommendations in the sections that follow.

5.2 Summary of Findings

This section provides a discussion and the interpretation of the findings of the study presented in this chapter. As part of the discussion process, the researcher compares the major findings of the study with those of similar works reviewed in chapter two in order to determine and explain their points of convergence and divergence. The discussion is arranged in a logical sequence in relation to the objectives and research questions. Covered in this section are discussions relating to records management procedures currently in place in REA that assist in the records management function, the appropriateness of records management infrastructure at REA, support to the

records management function by the leadership of REA and the impact of the use of ICTs on records management at REA.

5.2.1 Records Management Procedures at REA

The first objective of the study was to determine the effectiveness of the records management systems, procedures and practices currently used in REA. Firstly, the study sought to find out whether the Authority had a recordkeeping system and procedures. All the respondents were in agreement that, there were systems and procedures in place. The study findings also revealed that although there were manual systems and procedures in place, there was urgent need for the Authority to develop hybrid records management system to address the requirements of electronic records. The findings of the current study were consistent with the Integrated Records Management System approach which informed the study. The Integrated Records Management approach advocates for a blending of the paper-based records management and electronic records management systems. The findings of the current study were similar with Matongo (2015) who observed that, the primary purpose of an Integrated Records Management program is to ensure the creation, maintenance of records regardless of the format in an accessible, intelligible, and usable form for as long as they have continuing utility or value and to make information from records and archives available in the right format, to the right people, at the right time.

The findings are also consistent with Rotich, Mathangani, & Nzioka, (2017) and Poynter (2008) who differently pointed that, in an endeavour to make records accessible to both the government and to citizens, researchers and records management professionals in both public and private organizations need to put in

place systems and procedures that will meet electronic and paper management requirements.

5.2.2 Non-Technological Records Management Infrastructure at REA and how it Supports the Records Management Function

To understand effectiveness of non-technical records management infrastructure used by REA as shown in 2.4.1 to 2.4.10, the study broadly examined policies and staffing levels. In this study, citations by various authors on how these non- technical records management infrastructure support records management function relate to each other.

5.2.2.1 Policies

The study sought to establish whether REA had a records management policy. In this objective the study established that the absence of institutional records management policies contributed to inadequate management of records in the Authority. These findings serve to vindicate the aim of this study which considered the development of a records management policy as one of the key strategies to improve records management in Authority. The policy will seek to establish systems and procedures on how REA create, capture, maintain and dispose of her records. Further the policy will seek to define the responsibilities of personnel assigned to manage records.

Absence of institutional records management policies have been cited by many scholars as the main cause of poor records management in Africa. A study by Kemoni (2007) established that the development of a records management policy was one of the key items of advice that records staff received from KNADS staff whenever they conducted records survey. Findings of the current study however, indicate that REA had not developed records management policy.

The findings of this study also concur with, Otu, Bempah, & Amoako-Ohene (2014) who argue that, in order to achieve IRMS goals it is necessary to enact and implement comprehensive legislation and regulatory frameworks to regulate the life-cycle management of records and archives, irrespective of medium and format. The current study established that lack of records management policy at REA had negative impact on how the Authority created, managed and disposed of its records regardless of the format. The study is in agreement with Katuu (2015) who asserted that it is imperative to develop policies, procedures, systems, and structures to ensure the maintenance of the integrated records and archives management program.

5.2.2.2 Staffing levels

In the staffing levels and competency the study generally established that education and training play an important role in updating knowledge, skills and competencies in records management. The current study established that the number of trained records management officers at REA was inadequate. A good number of records management practitioners in the Authority lacked records management qualifications, training skills and competencies. Findings of the current study were similar with Kemoni (2007) who observed that government ministries in Kenya had traditional view on records management as a low-level routine work that did not require heavy investment in training and development.

The findings of the study further indicated that despite records having a direct link with quality service delivery at REA, there was inadequate support for records management within the Authority. Records management was lowly ranked in the Authority's organizational structure. These findings concur with Spratt (2000) who observed that there is a general lack of recognition and support for records

management in majority of government organizations globally. It also concurs with Wamukoya (2007) who noted that non-existence of records management policies and inadequate funding was due to lack of support and enthusiasm in records management by senior officers in Kenyan government. Mnjama (2005) also pointed out that one of real challenges faced by records management and archival institutions in the ESARBICA region was inadequate support by government.

5.2.3 Level of Records Computerization at REA and how this has Impacted the Authority's Effectiveness in Service Delivery

In objective number three (3) the study sought to determine the level of records computerization at the Authority and its ultimate impact on records management. The study established that the Authority had incorporated computerization in its business processes. The findings of the current study are in similar with Spratt (2000) who noted that, the role of records management in organization will be significantly influenced and shaped by innovations in computer and telecommunications technologies. The findings of this study however revealed that the impact of the use of computerization of business process of REA on records management of the Authority is yet to be appreciated. In addition to lack of skills and competences, the current study also established that the Authority did not have legal and administrative framework for e-records management. The authority had not accurately documented policies, standards and operating procedures and formal methodologies for managing e-records. These findings could be interpreted to mean that the Authority had not demonstrated full commitment in putting in place systems and procedures for the management of electronic records.

Previous studies in other countries such as USA and Uganda have also highlighted lack of link between computerization of organizations' business processes and records management. In the USA, a records management self-assessment conducted by National Archives and Records Administration-NARA (2014) noted that, managing electronic records remains as significant challenge for Federal agencies, as technical issues were often compounded by lack of senior management support and inadequate human resource.

A study by Akotia (2000) on the management of finance records in Uganda established that though ICT was considered an indispensable tool for enhancing productivity in government agencies, little attention had been paid to records management issues and to understanding the forces of change that affected the form and integrity of the record created within an IT environment.

The current study established that there was a weak underlying infrastructure across REA to support the management of electronic records. The Authority had not put in place adequate infrastructures to protect the integrity and evidentiary value of electronic records and data especially as they moved from varied networks within the agency.

5.2.4 Proposed Strategies to Enhance Records Management at REA

The study proposed strategies that can be explored to improve records management in the Authority. The proposed strategies are as follows: First put in place records management systems and procedures. This is supported by Kanzi (2010) who explains that the existence of records management procedures guide the employees, records classification system for retrieval and disposition of records, and training of records management staff. Second, Ensue adequate funding of records management activities

is required to ensure that the records management function is able to actualize its planned activities and that the resources required are availed. Ngoepe and Ngulube (2014) are in agreement by stating that it is imperative for provisions to be made in the annual estimates of capital and running costs for sufficient funds to enable the records and archives institution and its departmental units to perform their functions properly. Third, employment of quality records management staff was proposed as a helpful strategy. This is supported by Tagbotor, et al, (2016) who state that the quality of any records management programme is directly related to quality of staff that operates it.

Fourth, awareness and sensitization programs for records management staff were an avenue that can be explored to help all stakeholders in the Authority to appreciate the relevance of records management. Oganga (2016) argue that everyone in the organization has the responsibility for records and so they should be aware of the role and importance of records and what each one needs to do individually to ensure that records are well managed. Njeru (2018) adds that senior executives too need to understand that records are an organizational resource similar to finance, and it is therefore their responsibility to put in place the necessary management structures, and also state what role each one of them plays to ensure efficient and effective records management. Fifth, application of ICTs was also considered as a strategy to be explored. Mulauzi (2019) acknowledges that the use of ICTs to store organizational records constitute an important aspect of effective records management. Lastly, development of supportive policies and procedures in records management were also considered as strategies to be explored. Chikomba (2018) notes that policies and guidelines in records management are critical because they give the general framework for the creation, classification, use, storage and disposal of records. Kanzi

(2010) identifies the long-term objective of a records management policy by noting that such a policy ensures that government bodies capture, maintain and protect a corporate memory of decisions and actions that impact on the lives of the people and the environment they govern.

5.3 Conclusion

From the findings of the study, the following conclusions were made. To begin with, it was concluded that the Authority did not have an approved records management policy and that the resources and facilities provided for records management in the Authority were not adequate. This constrained effective records management. In addition, records management had not been well facilitated. For instance, the scheme of service for records management personnel in the Authority was limiting. Staff were placed at very low level and they were not properly facilitated in capacity building. Further, the general support for records management was not adequate as the function was constrained in terms of records management resources such as proper records storage facilities. This had contributed to a number of challenges experienced in records management in the Authority.

Additionally, there were records management competency gaps in the Authority since only a few officers had knowledge and skills in records management such as classification and filing. This had impacted negatively on the management of records in the Authority. Although the Authority had partially incorporated computerization or ICT in its business processes, records management systems had not been computerized. Computerization of these other business processes had resulted in the elimination of duplications, improved effectiveness and efficiency of service provision and improved turnaround time of processes.

The study concludes that the state of records management in the Authority can be improved by undertaking a number of strategies. These include adequate funding of records management activities, employment of adequate and qualified records management staff, awareness and sensitization programs for records management, application of ICTs and development and implementation of supportive policies and practices in records management. Such strategies can significantly improve records management in the Authority and ultimately result in improved service delivery.

5.4 Recommendations

Based on the findings of the study, the study proposes a number of recommendations that if adopted and implemented by the Authority, will help to improve its records management programme. The recommendations are as outlined below:

5.4.1 Records Management Procedures at REA

The study determined that records were poorly managed in the Authority caused, by among other challenges, high staff turnover, inadequate cooperation and inadequate human capital, inadequate systems, procedures and practices. In view of this, the study recommends that the Authority adopts numerous strategies that include; development and implementation of a records classification scheme and procedures. In addition, the Authority should employ enough records management staff and carry out awareness and sensitization programs on records management.

5.4.2 Non-Technological Records Management Infrastructure at REA

The study established that records management staff in the Authority is placed at very low level despite an established scheme of service on records management having been developed by the Department of Personnel Management in 2012. Therefore, the study recommends that the Authority harmonizes its records management scheme of

services on records management with that of the Government. This way, it will be able to attract and retain highly qualified records management staff in the Authority.

In addition, the study determined that resource allocation for records management in the Authority was not sufficient. In view of this, the study recommends that more resources be allocated to the records management function. This will help to implement systems that support effective records management.

5.4.3 Automation of Records Management Services

As part of the findings of the study, it was determined that other Authority's functions had been automated. However, records management had not been automated like other functions in the Authority. Hence, the study recommends the automation of records management processes to address problems of duplication of efforts, document retrieval and retrieval challenges, and service delivery in general.

5.4.4 Adoption and Implementation of Records Management Policy

The study established that the Authority had developed a records management policy but had not adopted and implemented it. In respect to this, the study recommends that the policy be adopted and operationalized. Additionally, the Authority should lend more support to the implementation of records management procedures, and, development and implementation of retention and disposition schedules.

5.5 Recommendation for Further Study

The Assessment of records management practices at Rural Electrification Authority, Kenya, brought to the fore several records management factors that require further research in order to provide in depth understanding of the issues critical to the management of records in government agencies in Kenya. This study suggests that current manual records management systems, procedures and practices used across

the public sector are no longer tenable in the prevailing environment of electronic and digital records. Therefore, there is need to explore the market for systems appropriate for electronic records management. Further, there needs to be a study to establish how government agencies are managing electronic records and the challenges they are facing.

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APPENDICES

Appendix I: Questionnaire for Rea's Operational Staff Records Management Champions

Introduction

Dear Respondent

My name is Timothy O. Nambwaya, a student in the School of Information Sciences at Moi University-Nairobi Campus, pursuing a Master of Philosophy Degree in Records and Archives Management. As part of the requirements for this programme, I am undertaking a research entitled "*Assessment of Records Management Practices at Rural Electrification Authority, Kenya*". I kindly request you to fill this questionnaire so as to assist me complete the study. All the information provided will be accorded utmost confidentiality and will only be used for the purpose of this research.

Instructions

Tick [ ] or Fill in the blank spaces.

Section A: Respondents' Background Information

1. Department…….
2. Current Designation……
3. Work experience in the Authority (*Tick one*)

   0-5 years ☐

   5-10 years ☐

Section B: Records Management Procedures at REA

4. Is there a documented/written procedures manual that guides the management of records in the Authority?

   Yes ☐

   No ☐

   Don't Know ☐

5. What procedures guide your day-to-day operations as records management personnel?

   .....

   .....

   .....

6. To what extent do you adhere to the procedures in question 5 above?

   Large Extent ☐ Moderate Extent ☐ Less Extent ☐ Not At all ☐

Section C: Non-Technical Records Management Infrastructure at REA

7. From the checklist below, tick appropriately the specific tool(s) you use in the day-to-day management of the Authority's records? [*Tick all that apply*]

   Registers ☐

   Classification system ☐

   Records management policy ☐

8. In terms of knowledge and skills, do you feel competent enough to carry out records management activities? [*Tick all that apply*]

   Knowledge and skills in records classification ☐

   Knowledge and skills in filling ☐

   Knowledge and skills in storage ☐

   Knowledge and skills in file retrieval ☐

   Knowledge and skills in e-records management ☐

9. How would you rate the Authority's support in the provision of each of the following records and information resources/support? [*Tick for each support item*]

Support items	Rating			
	More sufficient	Sufficient	Not sufficient	Not at all
Budget/Finance	☐	☐	☐	☐
Computer equipment	☐	☐	☐	☐
Non-computer equipment	☐	☐	☐	☐
Staff Training/Seminars/Conferences/workshops	☐	☐	☐	☐
Scheme of service for records management personnel	☐	☐	☐	☐
Work environment (space, senior staff attitude, etc.)	☐	☐	☐	☐

10. Besides the support items listed in Q9 above, what other forms of support are provided for you? [*Please, state them below]*

.....

.....

.....

11. Is there a records management policy at REA?

Yes ☐ No ☐ Don't Know ☐

12. If Yes, in Question 11 above, comment on your adherence to the policy?

…….

…….

…….

13. Does REA have adequate qualified records management personnel for the management of its records?

    Yes ☐ No ☐ Don't Know ☐

Section D: Level of Records Computerization at REA and its impact on Service Delivery

14. Has REA incorporated computerization/ICTs into its records management practices?

    Yes ☐ No ☐ Don't Know ☐

15. If Yes, in Question 14, state how computerization has affected records management services in REA

    ……

    ……

    ……

16. If Yes, in Question 14, how has records computerization impacted on service delivery at REA?

    ……

    ……

    ……

    ……

17. What are the challenges experienced in the adoption and use of ICTs in regards to records management at REA?

    ……

    ……

    ……

18. What are the possible solutions to the challenges experienced in the adoption and application of ICTs in regards to records management?

    ……

    ……

    ……

Section E: Strategies to Enhance Sound Records Management at REA

19. Has REA adopted a standard records classification scheme?

    Yes No

20. If Yes, in Question 17 above, to what extent has the classification scheme been adhered to? Large Extent ☐ Moderate Extent ☐ Less Extent ☐ Not At all ☐

21. What are the challenges associated with the management of records in the Authority?

    ……..
    ……..
    …….....

22. What are the possible solutions to the challenges associated with the management of records in the Authority?

    ……..
    ……...
    …….....

Thank you.

Appendix II: Interview Schedule for the Top-Level Management at REA

Introduction

Dear Participant,

My name is Timothy O. Nambwaya, a student in the School of Information Sciences at Moi University-Nairobi Campus, pursuing a Master of Philosophy Degree in Records and Archives Management. As part of the requirements for this programme, I am undertaking a research entitled "*Assessment of Records Management Practices at Rural Electrification Authority, Kenya*". I kindly request to interview you so as to assist me complete the study. All the information provided will be accorded utmost confidentiality and will only be used for the purpose of this research.

Section A: Background Information to REA's Top-Level Management

1. What is your current designation?
2. How many years have you been working at REA?

Section B: Records Management Procedures at REA

3. Does REA have established records management procedures to guide in the management of its records?
4. If Yes, are these procedures in the form of a manual?

Section C: Non-Technical Records Management Infrastructure at REA and how it Supports the Records Management Function

5. Does REA have a policy on records management?
6. If Yes, what is the Authority's policy on records management?
7. Which kind of support do you provide to records management personnel in the Authority?
8. Do you think the grading structure for records management personnel is sufficient, and what impact does it have on the provision of records management services?
9. What non-computer based facilities and equipment have been made available for the storage, maintenance and use of records in the Authority?

Section D: Level of Records Computerization at REA and its Impact on Service Delivery

10. What plans does REA have in regard to computerizing its records management services?
11. What benefits will records computerization have on REA's mandate?

Section E: Strategies to Enhance Sound Records Management at REA

12. What is your overall assessment of records management in the Authority?
13. What strategies can be put in place by Authority to improve records management in support of its operations?

Appendix III: Interview Schedule for Rea's Middle-Level Management

Introduction

Dear Participant,

My name is Timothy O. Nambwaya, a student in the School of Information Sciences at Moi University-Nairobi Campus, pursuing a Master of Philosophy Degree in Records and Archives Management. As part of the requirements for this programme, I am undertaking a research entitled "*Assessment of Records Management Practices at Rural Electrification Authority, Kenya*". I kindly request to interview you so as to assist me complete the study. All the information provided will be accorded utmost confidentiality and will only be used for the purpose of this research.

Section A: Background Information to REA's Middle-Level Management

1. What is your current designation?
2. In which department are you currently working?
3. How many years have you been working at REA?

Section B: Records Management Procedures REA

4. Has REA instituted procedural guidelines for the management of records?
5. Does REA have guidelines on the disposal of records in the Authority?
6. Are you satisfied with records management services in the Authority?
7. Which challenges do you encounter in accessing records?

Section C: Non-Technical Records Management Infrastructure at REA and how it Supports Records Management Function

10. Has REA provided policy guidelines for the management of records?
11. What policy changes should be made to promote records management practices in the Authority?
12. As senior officers in the Authority, what help do you give to records management personnel?
13. Do you think the grading structure for records management personnel in the Authority is sufficient, and what impact does it have on the provision of records management services?
14. Does REA have adequate records management personnel for the management of its records?

15. How do you rate the performance of records management personnel in the Authority?
16. In regard to question previous question (Question 15), how does this performance affect the provision of services in the Authority?
17. Has the Authority provided adequate support on provision of records management facilities?

Section D: Level of Records Computerization at REA and its Impact on Service Delivery

18. Has REA computerized its business processes?
19. If **Yes**, to what extent?
20. Has REA computerized its records management systems?
21. If **Yes**, how has it impacted on records management services?
22. How has records computerization impacted or would computerization impact on service delivery at REA?

Section E: Strategies to Enhance Sound Records Management at REA

23. What is your assessment of records management in the Authority?
24. Which strategies can REA adopt to enhance its records management?

Appendix IV: Moi University Research Permit

MOI UNIVERSITY
SCHOOL OF INFORMATION SCIENCES
DEPARTMENT OF LIBRARY, RECORDS MANAGEMENT AND INFORMATION STUDIES

Tel: (053) 43231
Fax No. (053) 43292
Telex NO: 35047 MOIVASITY
E-Mail: hodlis@mu.ac.ke OR deanis@mu.ac.ke

P. O. Box 3900
Eldoret
Kenya.

REF: IS/MPHIL/034/12

27th March, 2023

The Executive Secretary,
Kenya National Council of Science and Technology,
P. O. Box 30623,
NAIROBI.

RE: RESEARCH PERMIT – TIMOTHY NAMBWAYA - IS/MPHIL/034/12

The above named is a Master of Science Student in the Department of Library, Records Management and Information Studies, School of Information Sciences, Moi University.

Mr. Nambwaya is intending to carry out research work entitled ***"Assessment of Records Management Practices at Rural Electrification Authority, Kenya.***

We are kindly requesting you to issue him with a research permit to enable him proceed with his research.

Yours sincerely,

HEAD, DEPARTMENT OF LIBRARY, RECORDS MANAGEMENT AND INFORMATION STUDIES
MOI UNIVERSITY
DATE 27/3/2023

DR. ELSEBAH MASEH
SENIOR LECTURER AND CHAIR,
DEPARTMENT OF LIBRARY, RECORDS MANAGEMENT & INFORMATION STUDIES

EM/mn

Appendix V: Research Licence from NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **887549**

Date of Issue: **05/April/2023**

RESEARCH LICENSE

This is to Certify that Mr.. TIMOTHY ODINGA NAMBWAYA of Moi University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: ASSESSMENT OF RECORDS MANAGEMENT PRACTICES AT RURAL ELECTRIFICATION AUTHORITY, KENYA for the period ending : 05/April/2024.

License No: **NACOSTI/P/23/24940**

887549

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix VI: Research Permission Grant from REA

Rural Electrification Authority

Head Office
Kawi House - South C
Bellevue (Popo Rd), Red Cross Rd
Behind Boma Hotel,
RO.Box 34585-00100,NAIROBI
Tel: +254 20 4953000 / 4953600
Email:info@rea.co.ke
Website: www.rea.co.ke

Our Ref:2009/0111

15th September, 2017

Mr. Timothy Nambwaya
Rural Electrification Authority
KAWI House, South C
NAIROBI.

RE: PERMISSION TO COLLECT DATA

Your letter dated 10th September 2017 on the above subject matter refers .

Permission is hereby granted for you to collect the required data within the Authority to able you . carry out your research on your thesis title **Assessment of Record Management practices at REA .**

Please note that the information you collect should be strictly used for the intended purpose .

Yours Sincerely,

CPA PETER MBUGUA

Ag. CHIEF EXECUTIVE OFFICER

Appendix VII: Informed Consent Form for Operational Staff Records Management Champions at REA

Research Title: Assessment of Records Management Practices at Rural Electrification Authority

Kenya

Name of Researcher: Nambwaya, O. Timothy (IS/MPHIL/034/012)
Moi University
Department of Library, Records Management and Information Studies
P. O. Box 3900-30100
Eldoret, Kenya

Study Location: The study shall be conducted at REA's Headquarters in Nairobi.

Purpose of the Study: This research is undertaken for the purpose of writing a thesis towards the award of a Masters degree at Moi University.

Description of the Study: This study targets records management staff at the operational level of management in the Authority. The research will utilize self-completion semi-structured questionnaires in data collection. Questionnaires will be administered to records management staff at the operational level of management in the Authority. The researcher will personally deliver questionnaires to this category of respondents. The respondents will be given the freedom to answer questions at their own time so as to bring out well-thought accurate answers.

The questionnaire is divided into five sections. Section A focuses the respondents' background information. Section B covers records management procedures at REA. Section C focuses on non-technical records management infrastructure at REA and how it supports records management. Section D focuses on the level of computerization of records at REA and its impact on service delivery. Finally, Section E covers strategies to enhance sound records management at REA.

Your participation in this research will involve you answering questions asked in the questionnaire as indicated in Sections A to E above.

Voluntary Participation and Withdrawal: Your participation in this study is completely voluntary. You may choose not to answer certain questions that make you uncomfortable or that you do not want to answer. You can withdraw from this research at any time. However, we hope that you will participate in this study since your views are important.

Potential discomforts and risks: The researcher does not anticipate any risks to participants.

Potential benefits: There are no direct potential benefits to the respondents.

Confidentiality: Your responses will be treated with utmost confidentiality and stored securely. A respondent's identity will not be revealed while the study is being conducted, reported or published.

Reimbursement: There will be no reimbursement to participants since no cost will be incurred.

I agree to participate in this study.

Signature of participant: …… Date: .....

Signature of Researcher: .....Date…….....

Contact: For any questions or concerns about this study contact: Timothy O. Nambwaya Rural Electrification Authority, Human Resource/Administration Department, P. O. 34585-00100, Nairobi, Kenya. Mobile Telephone No. (+254) 0735400003, Email: tnambwaya@gmail.com. For any questions pertaining to rights as a research participant, contact: Head of Department-Department of Library, Records Management and Information Studies, or Dean-School of Information of Sciences, Moi University, P.O Box 3900-30100 Eldoret, Kenya. Telephone number: (+254) 053-43231; Email address: hodlis@mu.ac.ke OR deanis@mu.ac.ke

Appendix VIII: Informed Consent Form For Middle-Level and Top-Level Management Staff at REA

Research Title: Assessment of Records Management Practices at Rural Electrification Authority, Kenya

Name of Researcher: Nambwaya O. Timothy (IS/MPHIL/034/012)
Moi University
Department of Library, Records Management and Information Studies - School of Information Sciences
P. O. Box 3900-30100
Eldoret, Kenya.

Study Location: The study shall be conducted at REAs Headquarters in Nairobi

Purpose of the Study: This research is undertaken for the purpose of writing a thesis towards the award of a Masters degree at Moi University.

Description of the Study: This study targets top-level and middle-level of management in the Authority. The research will utilize face-to-face interviews to collect qualitative data from the participants. The researcher will book appointments with this segment of participants to ensure their availability and for higher response rate.

Interviews schedules will be used to collect data from the top-level and middle-level management staff. Interview schedules will cover five sections as follows: Section A will focuses on the background information about REA's top-level or middle-level management depending on the target group for the interview schedule. Section B focuses on records management procedures at REA. Section C covers non-technical records management infrastructure at REA and how it supports records management. Section D focuses on the level of computerization of records at REA and its impact on service delivery. Finally, Section E covers strategies to enhance sound records management at REA. The researcher will use a digital audio recorder to record the interviews.

Voluntary Participation and Withdrawal: Your participation in this study is completely voluntary. You may choose not to continue being interviewed. However, we hope that you will participate in the entire interview period since your views are important.

Potential discomforts and risks: There are no known risks to participants.

Potential benefits: There are no direct potential benefits to participants.

Confidentiality: Your audio recordings will be treated with utmost confidentiality and stored securely. You will be asked not to use any names during the interviews. The researcher would like to remind participants to respect the privacy of fellow participants and not to try to find out what has been said by other interviewees. A respondent's identity will not be revealed while the study is being conducted, reported or published.

Reimbursement: Their will be no reimbursement to participants since no cost will be incurred.

I agree to participate in this study and adhere to its guidelines.

Signature of participant: …… Date:.....

Signature of Researcher:..... Date:.....

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