RECORDS STORAGE AND RETRIEVAL SYSTEMS

ACASE STUDY OF MINISTRY OF TOURISM WILDLIFE AND ANTIQUITIES
SECURITY REGISTRY

BY
BAYIGA JANE

2018
RECORDS STORAGE AND RETRIEVAL SYSTEMS

A CASE STUDY OF MINISTRY OF TOURISM WILDLIFE AND ANTIQUITIES.

SECURITY REGISTRY

BY

BAYIGA JANE

15/U/20006/EVE

215020339

A proposal Submitted To East African School Of Library and Information Science

for the Award Of Bachelors’ Degree in Records and Archives Management

of Makerere University

SUPERVISOR

MR. RICHARD SSENONO

IDI

MAKERERE UNIVERSITY

FEB 2018
DECLARATION

I Bayiga Jane under the supervision of my University Lecturer hereby declare to the best of my knowledge that the work contained in this dissertation is a result of my own initiative, hard work and analysis. The content contained herein is original and has never been presented to any University or institution of higher learning for any award in which ever discipline.

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

Bayiga Jane

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

Date

21/06/2018
APPROVAL

This dissertation has been under my supervision and has my approval for submission.

Signed: [Signature]

Date: 21/06/2018

Supervisor

Mr. Richard Ssenono
LIST OF ACRONYMS OR ABBREVIATIONS

MTWA - Ministry of Tourism Wildlife and Antiquities

MTTI - Ministry of Tourism Trade and Industry

UWA - Uganda Wildlife Authority

UNDP - United Nations Development Program

UWEC - Uganda Wildlife Education centre

NFA – National Forestry Authority

NP – National Parks

HTTI – Hotels and Tourism Institute

Asst – Assistant.

UNESCO – United Nation’s Education and Cultural Organisation

UTB - Uganda Tourism Board.

KCCA - Kampala Capital City Authority

SR – Security Registry

DBMS – Database Management System

RSRS – RECORDS STORAGE AND RETRIEVAL SYSTEMS

MUK - Makerere University Kampala

ERD – Entity Relationship Diagram

DFD - Data Flow Diagram
ABSTRACT
The research will be intended to study the existing system of storage and retrieval of records in the SR of MTWA. The study will aim at identifying the types of records kept, procedures used for storage and retrieval, identifying the challenges of the existing system, establishing how the identified challenges can be solved and finally proposing a new records storage and retrieval system for the registry. The study will review the existing literature on the topic of the study; it will examine the importance of records management, types that they will be storing in the registry, the storage facilities they will be using, procedures for storage and retrieval of records challenges of the existing system and the solutions to the challenges.

The research will be conducted in MTWA Security Registry. The researcher will interact with the registry staff through a focus group discussion, observation and document Analysis. The researcher will also use a questionnaire to collect information from the users such as the action officers. The study will establish the types of records the registry keeps, procedures for storage and retrieval, the current system in terms of storage, retrieval and security.
CHAPTER ONE

INTRODUCTION AND BACK GROUND TO THE STUDY

1.1 Introduction

Records Management involves a wide range of functions and records storage and retrieval is one of the functions. However the systems for record storage differ from office to office depending on the activities done. Due to those activities records have grown tremendously and thus the need for automation. This study therefore will highlight the components of record storage and retrieval systems in Ministry of Tourism Wild Life and Antiquities security Registry. This chapter will consists of the background to the study, the problem statement, the major objective and the specific problem, scope of the study and the significance of the study.

1.2. Background.

1.2.1. Background of Ministry of Tourism, Wildlife and Antiquities

The Ministry of Tourism Wildlife and Antiquities was recently created in 2011 when it split from the Ministry of Trade, Tourism and Industry being repositioned to provide political and technical guidance and oversight of the sector which is critical in planning and national economic development under a reviewed client charter. The ministry is already implementing some programs and has come up with a client charter in line with circular standing instruction No.2 of 2006 from the Ministry of Public Service which provides guidelines for developing and implementing client charters.

1.2.2 Conceptual background

Records creation and receipt dates back as far as the introduction of writing materials such as parchment, vellum and paper. In the early centuries, records were mainly created and received by elite in society that is to say nobles and royals who went on to create private libraries to store data and as such records were only accessed by few. With the increase in the number of records created and received by the elite some saw it fit to open up the rest of the communities allowing more people to access their private collection (records) such developments not only increased the number of people who had access to records but also improved the records management practices. Because they were privately owned records could be handled as they wished since there were no records management standards and policies and soon effects of poor records management were evident such as loss of records, destruction of records due to poor handling. (Langemo, 2002) Due to the increasing technological advancement in the whole world, the need for an automated records management systems arise. The fact that records are so important, they need a safe storage system which cannot allow un authorized persons to access records the system which can enhance the authenticity, reliability, usability, accuracy and integrity of records. Thus the storage and retrieval system is ideal.

Automation can be defined as the process which involves use or application of new technologies or machine to replace manual efforts. It encompasses both digitization and computerization.

This is how DR.(Kongoli 2012), views the role of automation in the modern world that Automation is closely related to the modern need for sustained development in the 21st century. one of the principles of sustainability is “Doing More with Less” which in other words, is also one of the goals of automation by replacing the routine part of human labor with the use of machines, automation not only increases productivity and the quality of products beyond what can be achieved by humans but also free space, time and energy for humans to deal with the new, non-routine challenge of developing innovate and more advanced technologies.

1.3. Problem statement

Currently the ministry is still using a manual system to manage a big volume of records generated both internally and externally. Records officers take a lot of time while retrieving records on shelves, they also feel it difficult to take records to action officers to be acted upon. The system is very slow, prone to errors and hard to quickly retrieve the stored records.
Therefore it is for this reason that the researcher intends to carry out a study on the Records Storage and Retrieval Systems in the Ministry of Tourism Wildlife and Antiquities Security Registry

1.4. Purpose of the research
The major purpose of the research will be to study and assess the existing system for storage and retrieval of records in order to identify the types of records kept, the storage equipment’s. The challenges facing Records Storage and Retrieval Systems in the Ministry of Tourism Wildlife and Antiquities Security Registry and get the possible solutions to the challenges.

1.5. Objective of the study
a) To indentify the type of records created and received at the security registry
b) To access the existing records storage and retrieval system
c) To find out the procedures followed while storing and retrieving records in the registry ;
d) To identify challenges associated with the current storage and retrieval system used in the security registry;
e) To propose possible solutions to improve Records Storage and Retrieval Systems in the Ministry of Tourism Wildlife and Antiquities Security Registry

1.6. Research questions
The primary question that will be explored in this research is whether records created and received are stored and retrieved as one of the organizational valuable resource. To answer this question the following research questions will need to be answered.

i. What kind of records are created and received by the registry?
ii. What records storage and retrieval procedures the registry staffs use?
iii. Which storage equipments are used in the registry?
iv. What challenges does the staff face with the current system for storage and retrieval of records?
v. What can be done to solve the identified challenge?

1.7. Scope of the study
It will be geographical scope, scope and the time scope.
1.7.1. Geographical scope

The study will be carried out in the security Registry of MTWA.

1.7.2 Time scope

The study will be carried out from February – May.

1.8. Significance of the study

The study will reveal that records management can only be achieved through good and well functioning records storage and retrieval systems. The study therefore will be significant in the following

The study will help the staff and management of the Security Registry to identify records storage and retrieval areas that need more resources and policy changes.

The findings and recommendations of the study will also act as guidelines to proper records managements

The study will help other researchers such as students to enhance their research in the same field.

1.9. Study justification.

Assessing the existing system for storage and retrieval of records

1.10. Definition of key terms

A Record

According to Ministry of Public service Retention and Disposal schedule, a record is defined as any recorded information regardless of form or medium created, received and maintained by an institution or individual under legal obligations or in transaction of its business and providing evidence of performance of those obligations or that business.

Record Management

It’s a discipline and organizational function of managing records to meet the operational business needs and uses.

Registry

This is a building where current records and information are kept
**Records Management system**
Is an information system which captures, manage and provide access to records in a given time.
Australia Standard ISO 15489

**Records storage and retrieval system**
This is of capturing, storing and managing records and its metadata by use of machines such as computers

1.11. Conclusion.
In conclusion therefore chapter one largely talks about the introduction and background to the study, problem statement, purpose of the study, objectives of the research, research questions and the keys terms in the support.
CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction
In this section the research, location and analysis of the existing knowledge related to the subject of inquiry will be explored and cited. It will also sell at the relationship of the proposed research for purposes of good representation and critical review of the existing literature some of the existing literature will be got in research books, journals and past research done by other persons. This section has the general concepts on records management and the existing systems

2.2. Records Management today
Records management is the practice of identifying, classifying archiving and destroying of records.

ISO 1549:2001 defines records management as “the field of management responsible for the efficient and systematic and effective control of records (both paper and electronic) throughout their cycle from creation or receipt to the time of their disposal. It aims at ensuring that records are accurate and reliable, can be retrieved speedily and efficiently, and are kept for no longer than necessary.

According to the association of Commonwealth Archivists and Records Managers (2007) the effective management of records and archives throughout their life cycle is a key component of National Development. Unorganized or otherwise poorly managed records mean that government does not have ready access to authoritative sources of administrative, financial and legal information to support sound decision making or the delivery of programmes and services. Nor does the government have the means of holding itself accountable for what it has done or upholding the rights of its citizens (Association of Commonwealth Archivists and Records Managers 2007).

Furthermore, if records are not well organized during the earlier stages of their life cycle, those of enduring value will not be readily identified and safeguarded as part of the National archival
heritage. However the efficient management of records and archives must be guided by a well laid down legal and policy frameworks in the country. This is because legislation provides the essential framework that enables a national records and archives service to operate with authority in its dealings with other agencies of the same state.

2.2.1. Importance’s of records management

Records management is crucial to all organizations: unless records are managed efficiently, it is not possible to conduct business, to account for what has happened in the past or to make decisions about the future. Records are vital, corporate asset and are required to:

- To provide evidence of actions and decisions;
- To support accountability and transparency;
- To comply with legal and regulatory obligation, including employment, contract and financial law, as well as the data Protection Act and Freedom of information Act;
- To support decision making;
- To protect the interests of staff, students and other stakeholders.

“A record is defined as information created, received and maintained as evidence and information by an organization or person in pursuance of legal obligation or in the business transaction”.

While the definition of a Record is often identified strongly with a document, a record can either be tangible object or digital information, which has value to an organization.

2.3. Types of Records

Records can be categories by format, currency and subject as stated below,

Edmonds (1992) advances only two forms of records and these are non-paper,

Non-paper records, these are captured on non-conventional media like audio cassettes, microfiche, roll films and optical media among others.
These can also be called electronic records. These are stored on electronic media that can be readily accessed or changed. A piece of equipment is required to view and read or listen to electronic records (Read and Ginn, 2007).

**Paper records**, these are captured and stored on paper media for example newspapers, pamphlets, journals, magazines, maps and textbooks.

**The National Records and Archives Act (2001)** categories records into three types, depending on their currency. These are current, semi- current and non- current records.

**Current records**, these are records that are often referenced in the organization.

**Semi- current records**, these not only referenced in the organization.

**Non – current records**, These are records that are stored permanently in the organization due to their enduring legal, fiscal, administrative, historical and evidential values. They are therefore referred to as Archives. Archives provide primary source documents that have accumulated over the course of an individual or organization‘s life time and are kept for their enduring cultural, historical, evidential values and are from journals, magazines and books as they are un published (Kumar, 2011).

**By subject records can be;**

Legal, administrative, historical, fiscal and personal.

Legal, these provide evidence of business transaction like contracts, financial, agreements, deeds to property owned and articles of incorporation.

Administrative, these help employers perform office operations for example hand books, organizational charts, policy and procedure manuals (Read and Ginn, 2007)

Fiscal, these document the operating funds and other financial processes. They include tax returns, purchase orders, sales orders, invoices, balance sheets and ledger documents (Gross, 2005).

Historical, these document organization’s operations and major shifts of direction over years for example minutes of meeting, corporate charters, public relations documents and information on
corporate officers. They therefore contain significant information about the past and are thus worthy of long term preservation (Dearstyn, 2000).

Personal, these pertain to the employees of the organization. They show employees ‘ complete particulars , negative notes like on indiscipline , along with positive records like his achievements, training promotion so that such details may be useful for his future use (Sharma, 2001)

2.4. Records storage
Austrian Standard 4390 –Records Management defines storage as the records management function of storing for future retrieval and use.

How records stored depends upon a number of factors:

- The purpose and use of a record,
- The physical form of the record ,
- How long the record will the record will be retained , and
- Its accessibility including security precautions because of the threat to the information contained within the record.

Today more organizations are putting more emphasis on storage of their records using electronic records management systems (ERMS) which can be explained as automated systems used to support the creation , use and maintenance of electronically created documents for the purpose of improving an organization ‘s work flow. (National Archive of Austria, 2005) this however doesn’t rule out the need for the manual system is and can be used when designing , updating the electronic records management systems.

2.4.1. Records Storage Equipments
Wilkins (2006) the storage equipment used in records facilities has great impact on the overall management of records in an organization especially their preservation and conservation.

In the presence of excessive moisture and oxygen, storage equipment can lead to deterioration of records as they are produced by products that react with the moisture damaging chemicals Wilkens (2006).
Equipments used in storage of records therefore include:

**Storage boxes;**
This is the easiest and most used equipment for storing of records. Records are placed in the boxes and information about what’s in each box is written on it before boxes are placed on shelves providing fast location, retrieval of requested records and save space s shelves with multiple levels can hold lots of records (Mbaga, 2000)

**Filling cabinets**
Wilkins (2006), filling cabinets are considered to be the best storage equipments for the active records that are frequently accessed for use in reference areas. There use is however not encouraged in storage of archival materials

**Shelves**
Since shelves are relatively cheap and easy to maintain compared to other storage equipments, their usage in the registries should be inspected periodically. Use of wooden shelves and other wooden materials around records should be avoided or limited (Wilkins 2006) wood contains pitch, resin, and other acidic elements that can cause deterioration of records.

According to Wilkins, 2006 shelves should be stable and have;

- Back to side braces.
- Adjustable shelves.
- Be 12 inches away from outside wall.
- Have the bottom shelf elevated 4-6 inches from the floor
- Have two inches of clearance between the bottom of the shelf and the top box on the next lower shelf.
2.4.2. Computer storage devices

Harvard records management office (2002) in additional to the manual storage equipment and internal hard drives that virtually every computer storage devices that can be used as storage equipments for records such as:

**Flash Drives**

Saffady (2009) also known thumb drives because of their size or as USB drives because that’s the port they connect to, flash drives are extremely popular way to store data in a compact disk and portable fashion. Flash drives range in data capacity up to 1,000GB.

**External Hard Drives**

External hard drives are like the hard drives on any computer except they are outside of the computer (Saffady, 2009). They are designed either for desktops or laptops and usually connect through a USB port (similar to flash drives).

**Smart Cards**

The usage and types of smart cards have evolved over years from primary usage in usage in laptops to cell phones and Personal Digital Assistants (PDA’S) many printers, laptops and other computers come with slots or various types of smart cards are also known as memory cards.

**Online storage**

Saffady (2009) also called ‘’ or ‘’ cloud storage ‘’ online storage sites allow you to store information on company’s servers. Sugar Sync, drop box, 1 Drive and numerous other sites provide these services for free but more storage space is typically available for a fee.

**Re – writable CDs and DVDs**

Wilkins (2006) re-writable CDS and DVDs you can buy in a store with music and movies on them, except in the case of writable you can store information on them they are often used to store music files, photos and other data.
2.5. Records retrieval and access

For organization to ensure proper records management there has to be producers in place to follow when accessing and retrieving required records such as the use of borrower cards identity cards filling a requisition form and use of passwords for electronically stored records.

Stewart (2005) explains that the function of records retrieval has five major components access, documentation, delivery, follow up and recovery.

The mentioned components are usually informal in small record centers, in large record centers however, each component may be structured. He further explain these components as

Access
He asses that quick access to all types of records whether paper based, film, or magnetic tape is assured with effective filing system. Filling refers to producers and methods used to classify, sort and store records (Stewart, 2002).

In a manual system access may entail walking to a file cabinet scanning drawer labels, opening the drawer, locating folders and removing either the entire or removing the record. In an electronic system however, access may simply take a click of a computer mouse to identify the current location of a record.

Documentation
Stewart (2002) documentation in regards to records access and retrieval is a written account of who retrieved a record and when it was retrieved.

Follow up
Robek (1996) noted that to ensure that records retrieved are returned to their area of storage at the appropriate time, provision for follow up can be made by using a pending folder, disk calendar tickler.
2.6. Records security

Proper records storage and retrieval system in one way or another provide for records security.

This however doesn’t stop or substitute the need for records security systems in an organization.

Records security refers to the measures taken to address the physical safety of the building and the collections housed within it. Stewart (2002) when addressing security issues, one need to address the physical, and the management of the collections and the users.

2.6.1. Physical security

Adebowale and Osuji (2000), in Hrach (2006) maintain that records must be kept in locked files only to be accessed by authorized users. Storage areas must be secure during and after normal working hours security measures need to be put in place to prevent an unauthorized access to the collections and the building. Stewart (2002) there are six practical things to consider about the security of your facility

- Doors, they should be strong and well constructed.
- A lock, a lock is a must for records storage and for reference and workspace.
- Windows, They should always be locked and secured
- Alarms, these are recommended to detect after hours entry, although they may not be feasible for every program.
- Keys should be carefully issued and tracked
- Box labels. Labeling the boxes with a little information as is necessary for staff to retrieve collection will make it much harder for an unauthorized person to find items of value.

2.6.2. Management of collections and users

Collection security means making sure that records don’t disappear. Anyone can be the source of security threat including staff, users and maintenance and support staff.

Managing your collection well is vital component of security. You will not know if something is missing from the storage area if you don’t know what you have and where it is.

Wilkens (2006) some collections management activities that will increase the security of the collections are:
Periodically make inventory of all your collections so that you know what you have and where it is;

Organize storage areas for quick and easy inspections. Staff should be able to notice quickly if something is missing or out of place. Boxes should be clearly labeled;

Create procedures to check collections before and after being used by the authorized users. Staff should look at the records before use to make sure that it is complete.

Use call slips, sign out sheets to track the records.

Keep backup copies of all the records and the finding aids because they provide additional information about that record.

Enforce rule on users such as leaving personal belongings at a designated area to ensure security of the records.

Control access to storage areas to only authorized staff, have only one exist that requires users to pass by the reference desk.

2.7. Database Management systems

Ramez and Narthe (2004) asserts that database and database technology are having a major impact on the growing use of computers, it is fair to say that databases play a major role in engineering, medicine, library and information management.

They defined database as a collection of related data, meaning known, facts about that related data can be related data can be recorded and can have an implicit meaning like telephone number, names e.t.c.

According to Raghu and Gahrke (2003), a database management system, refers to a software packages designed to store and manage DBs they illustrated that DBMS can be used for data Independence and efficient access, reduce application development, time support and data integrity and security, facilitate uniform data communication, allow concurrent access and provide recovery from crushes. They defined a data model as a collection of concepts for describing data.
A schema as a description of a particular collection of data model and argued that the main concept in relation, basically is a table which rows and columns and very relation has a schema, which describes the column of fields.

2.7.1. Importance of records management system

Laudon and laudan (2000), states that for the an information system to be successful as a resource just as people and money are resources for an organization needs computer based systems to collect, store and discriminate information from an organization environment and internal operations for the purpose of supporting organizational functions and decision making, communication, coordination analysis and utilization.

Information systems transform new data into useful information through their useful basic activities of input, processing and output.

Fitze (2), says that the RMS are out of great importance because they help in summarizing historical information to be used in decision making and more so that these systems must provide information that times its needed without fail and at no cost to the organization using the system.

Anderson, (2000), states that indeed data and the system have to meaning until they are put into the context of what a business or an organization does. Therefore Anderson contends that RMS are only useful to the organization only when they are build to solve a specific problem as organization is facing. Thus must perform and fulfill the objectives an organization set out when they decided to invest in a RMS

Laudon and Loudon (2006), continue to stress the importance of the automated records management that they reduce information uncertainty and result in improvement in decision making, they further say that business makers are limited, delayed and inaccurate

Knowledge of customer states, inventory and business process. This meant that they were using information that was at the best approximate and often wrong.

Information system has solved that in the above case study, am aiming at implementing what the Laudons stressed.
Meleod (1998), continues to stress the importance of RMS in relations to the problem solving as follows

Organization wide information resource, the RMS is an organization effort to provide problem solving information the system is formal commitment by the organizational executive to make the computer system available.

Problem identification and understanding the main ideas behind RMS is to keep a continuous supply of information flow to action officers in an organization.

2.8. Challenges facing Records management today

Bailey AND Vidyrthi , (2010) there is a growing need to ensure proper records management , this however cannot be achieved without identifying the causes challenges facing records management today. Thus the challenges are given below

**Records Management Standards**

Only a few organizations have actually developed, adopted and implemented coherent visions and strategies for records management and knowledge most organizations especially in developing countries are still too reluctant to organize to organize the need for implementation of records management standards such as hiring qualified staff.

**Electronic records are fragile**

The medium on which records are stored like DVD’s computer hard drives are fragile and can easily be destroyed making digital preservation one of the big challenges faced in records management today.

**Information Illiteracy**

Effective usage of electronic records management system require IT skills to access and receive yet IT illiteracy is still vied as a big challenge for both records staff and users .

**Limited methods**

The governments of the developing countries areas till not valuing records and information are still seen as an additional drain on resources. Thus the information departments in various ministries facing the challenge of limited funds to use to improve on records management.
Hardware and software
Hardware and software that can be used to manage records are too expensive for developing countries this has become a challenge since software used now ids just adopted but it is not designed specifically for records management.

It is also a challenge in terms of technological obsolescence’s, the rate at which these hardware and software get absolute is high thus making the whole process of records management a challenge.

Limited trained personnel in the field
This is a challenge in the way that most people who are employed in ministry or local government registries are not trained in records management; therefore they lack skills in managing records.

2.9 Research gap
Following the above, it can be put that a number of scholars have conducted research on various themes of records management and the need for strategies towards improvement of records management at the organization level. However, there is no specific research that has been conducted in reference to records storage and retrieval system in MTWA SR

Conclusions
In regards to the above literature review, an appropriate system for storage and retrieval can be adopted in order to effectively and efficiently store and retrieve records by using a computer database as well as the manual system.
CHAPTER THREE

METHODOLOGY

3.1 Introduction
Methodology is the means, techniques, and frames by which researchers approach and carry out investigation (Busha, 1980).

Methodology refers to the system of principles and practices used in the project. To attain the specific objectives the following methodology will be used in the study during the development of the RMS for MTWA SR.

3.2 Research design.
According to Orodho (2003) a research design is a scheme, outline or plan that is used to generate answers to the research problem.

It is also an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance with the research purpose.

The research design therefore describes the nature and pattern which the researcher is to undertake in accomplishing the study.

The study is to employ descriptive survey design. Orodho (2003) describes descriptive survey as a method of collecting information by interview or administering questionnaire to sample of individuals. It can be used when collecting information about people’s attitudes opinions, habits or any of the variety of education or social issues (Orodho and Kombo, 2002).

A descriptive survey research design will be used because it is appropriate for educational fact finding and yields a great deal of information which will be accurate for use. The research will aim at gathering accurate data on records storage and retrieval systems, types of records, storage equipments, procedures for storage and retrieval in the Ministry, the challenge the registry staff faces with the manual system and finding out the solutions to the challenges. The researcher will therefore use both qualitative and quantitative research methods for collecting and analyzing data to describe and interpret it into information.
3.2.1 Qualitative research
According to Orodho and Kombo (2002) qualitative research is a form of research that involves description and analysis of the culture and behavior of human being and their groups from the point of view of those being studied, the researcher will go to the organization in order to observe and record the subject as it normally and naturally occurs in the Ministry.

3.2.2 Quantitative research
According to Orodho and Kombo (2002) quantitative research focuses on measurements that is the assignment of numerical events according to rules. Quantitative research also means confirmation, proof, corroboration or substantiation. Knowledge merges from what can be proven direct observation.

Qualitative research will be used to enable the researcher gather people’s views and the opinions on automation of records management systems for storage and retrieval of records in the ministry.

This method will also be employed in gathering numerical data about the storage equipments of records in the ministry’s central registry.

3.3 Area of Study
Mbaaga (2000) defines this as a place or department including the population where the study will be conducted. The study will be conducted in the security registry of ministry of Tourism Wild Life and Antiquities in the department of records.

3.4 Study Population
Mbaaga (2000) defines population as the complete set of individuals, objects or measurements having some common observable characteristics.; the targeted population will comprise of the registry staff, users of the records and administrators (action officers ).

The population will enable comparison of the study samples in relation to their characteristics and differences. It will also enable the researcher to make a better conclusion on the study. The registry staff consists of the senior records officer, records officer, Assistant records officer and the office attendant.
3.5. Sampling methods

According to (oradho and Kombo 2002) sampling is the procedure a researcher uses to gather people, places or things to study. It is a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group.

When dealing with people, it can be defined as a set of respondents (people) selected from a large population for the purpose of a survey. In this case the researcher will use purposive sampling methods.

3.5.1. Purposive sampling

According to Enon (1995), purposive sampling is where a researcher selects samples based on a certain purpose. A sample constitutes a few items selected from the universe for study purposes.

Purposive sampling is a non probability sampling method where the researcher purposely targets a group of people believed to be reliable for the study.

Purposive sampling will be used because the respondents will give right answers appropriate to the study.

3.6. Data collection methods

According to Kombo (2005) data collection in research is the term used to refer to the gathering of specific information aimed at proving or refuting some facts. In data collection researcher ensured that the instruments to be used, respondents and the selected area are clearly stated.

Therefore, the study will involve both primary and secondary sources of data.

Primary data encompasses the use of interviews, questionnaires and observation methods with both open and closed interview.

Secondary data will be got through research in the library where both published and non published literatures such as books, reports, internet sources and other related materials will be viewed.
The following will be used in gathering data.

3.6.1 Questionnaires
Mbaga (2000) defined questionnaire as an asset of related questions designed to collect information from respondents. It is predetermined of written questions which may be answered by Respondent without supervision or explanation.

This is one of the methods which will be presented to respondents for them to answer. Both open ended and close ended questionnaires will be used by the researcher.

The questions will be self-administered and distributed to respondents from different departments (action officers)

3.6.2 Interview
Kakinda (2000) defines interview method as a predetermined set of questions and instructions intended to standardize the interview procedures. The interview method of collecting data involves presentation of oral-verb stimuli and reply in terms of oral-verbal responses.

The researcher will set open ended and close ended questions purposely to guide her while holding an interview with respondents.

The targeted groups of these people are the records officers and users in the ministry. This method will be used by the researcher because of its flexibility in collecting in-depth information about the storage and retrieval systems.

3.6.3 Observation
Baguma (2003) defined observation as a purposive or international examination of something particularly for purpose of gathering data. Observation is one of the classical methods of collecting data in scientific studies. It involves the use of sensory organs to make sense of the study phenomenon.

The researcher therefore will use the observation method to detect and identify ‘observable’ challenges of the storage and retrieval system in registry. This method will be used because it helps in eliminating bias that could be presented by the respondents. Here the researcher will design an observation guide to act as a road map to the aspects highlighted above.
The observation guide however will enable the researcher to directly obtain data on the physical state of the records. This will be achieved by visiting Ministry Security Registry which in the end will help the researcher to verify the desired information relevant to the topic in question. Fortunately the researcher will manage to observe the way how records are stored and retrieved.

3.6.4 Focus Group
Kakinda (2000) focus groups allow interviewers to study people in a more natural conversation pattern that typically occurs in a one-to-one interview. In combination with participant observation, they can be used for learning about groups and their patterns of interaction.

An advantage is they are fairly low costs compared to surveys, as one can get results relatively quickly and increased the sample size of a report by talking with several people at once therefore the researcher will use focus groups to collect data from the registry staff because they stay in the same area.

3.7. Data Collection Instruments.
According to Kakinda (2000) data collection is a systematic process in which the researcher collects relevant data or information to achieve the research objectives. The instruments to be used for collecting data depended on the research design. In this study, data will be collected using interview guide and questionnaire.

3.7.1 Questionnaire.
A questionnaire is a set of related questions designed to collect information from respondents.

Kakinda (2000) given the fact the questionnaire is presented in paper format, there is no opportunity for respondent’s bias.

Kombe (2006) in this study the researcher carefully designed a list of questions that require the population under study to respond to them by writing down some answers or ticking the best alternative which the respondent think is relevant for the topic.

Questionnaires will be distributed to registry staff, administrators and the records users who will be purposively selected and the researcher will give them enough time to fill the questionnaires at their own convenience.
The researcher will use this instrument because it saves time, helps in confidentiality, does not require as much effort from the researcher as verbal or telephone surveys. *(See Appendix 1).*

### 3.7.2. Interview guide

An interview guide is a set of topics or questions about which the interview is conducted *(Kombe 2006).* This involves asking the respondents face to face questions and this is done with the help of designed guide where the interviewer asks relevant questions to the interviewee since they will be in direct interaction. The instrument will be used because its flexible that is there will be no pre-determined questions and this will allow the interviewee to freely respond to an issue thus gathering enough information *(See Appendix 2).*

### 3.7.3 Observation Guide

According to Kombo *(2006)* an observation guide is a research instrument that provides information about actual behaviors *(see appendix 3)*

### 3.7.4 Focus Group guide

Kakinda *(2000)* focus group guide is an instrument that allows an interviewer to study people in a more natural conversation pattern than typically occurs in a one-to-one interview .In combination of interaction *(see Appendix 4)*

### 3.8. Data Analysis and Presentation

According to Kombo *(2006)* data analysis refers to examining what has been collected in a survey or experiment and making deductions and references .It involves underlying structures, extracting important variables, detecting any anomalies and testing any underlying assumptions.

However in this research, data analysis will be done during the transformation of the raw data abstained from the field into meaningful data and this will enable the researcher to make sense of the data appearing in questionnaire responses, interview and observation.

The researcher will use both qualitative and quantitative analysis of data.

Qualitative data analysis involved editing data during and after collection to sort out mistakes and systematic description of the contents of the data collected from the field in a reduced form. Quantitative will be analyzed by use of descriptive statistics like data tables.
Interview will be used for validity purposes and this is important because it will help the researcher in ensuring that attention is paid to only relevant information that is to be evaluated, analyzed and then presented.

3.9 Data Quality Control
According to Murhte (2005) data quality control is a way of making sure that collected data is accurate. Therefore there is need to ensure that data collected is of good quality, triangulation will be done. Hence comparing and cross checking the consistence of information to be delivered from the data collection methods. That is to say interview data will be compared with the Observation guide and then from related literature review. The findings will be similar and the researcher will be in position to conclude that the data that will be collected will be reliable.

3.10 Research procedure
Triangulation, According to Coshen (2007), triangulation can be defined as the use of two or more methods of data collection in the study of some aspect of human behavior. The combinations of the interviewing, questioning, focus group and observation methods of data collection will be used by the researcher in carrying out the study. This will help the researcher in comparing answers that are to be obtained from the respondents.

3.11 Ethical considerations
Ethical issues refer to a set of moral principles that govern or influence conduct. Assurance will be given to the respondents that the information obtained shall be for strictly academic purposes only. Treated with utmost confidently and under no circumstances will the respondents’ name appear in the research project. The respondents’ consent shall be sought before releasing any information to anyone.

Confidentially: the researcher will ensure that participants’ information is not availed to anyone who is not directly being involved in the study. This builds confidence among the researcher and respondents.

Information provided by the respondents will be used strictly for academic purposes only and not any other purpose: this I protected the rights and privacy of the respondents.
3.11.1 System design

The existing manual system will be examined and user requirement identified in order to determine the entities and their attributes.

Process modeling

Through using DFDs the researcher will be able to illustrate the relationship of the processes, data, stores and external entities in the MTWA.
REFERENCES


Saffady ,W (2011) , Records and Information Management : Fundamental of Proffesionals


The National records and Archives Act 2001


Enon, R. (2016) research instruments. Makerere University


http://www.ucl.ac.uk/library/about/records-office/storing-paper

in Uganda. 70-7


Luyombya, D. & Bukirwa, J. (2014). *Records Management practices in oil marketing companies*


Appendix 1

I am Bayiga Jane a student at Makerere University College of computing and information technology East African School of Library and information science. Pursuing a Degree in Records and Archives Management.

Case study. Ministry of Tourism Wild Life and Antiquities Security Registry

Questionnaire

The purpose of this questionnaire is to identify and collect information about the current Records Management system used to store and retrieve Records in the security registry and also identify and specify the functional requirements of the new system.

The information collected will be for academic purpose only and will be kept confidential therefore I humbly request for your positive response.

This questionnaire has both open and close end question.

Information about the respondents

Types of respondents

Records officer ☐ Administrator ☐ Record users ☐

What records management system is used in the registry?

Manual ☐ Computerized ☐ Both ☐

2. Is the current system secured?
   Yes ☐ No ☐

3. What is the speed of the system?
   Slow ☐ Medium ☐ Fast ☐

4. Are you contented with the system?
   Yes ☐ No ☐
5. Is the system multiple enough to handle a number of users at ago?

Minimum □□□□□□ Maximum □□□□□□

6. Is the system user friendly to users?

Yes □□□□□□ No □□□□□□

7. Is the system user friendly to administrators?

Yes □□□□□□ No □□□□□□

8. Does the system provide feedback when requested?

Yes □□□□□□ No □□□□□□

In these questions the respondent gives his or her own opinion.

9. What types or formats of records do you store and retrieve?

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

10. What are the loop holes in terms of the following features?

Security.................................................................

Speed in retrieval .........................................................

Storage space..............................................................

11. Do you want the new system?

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

12. Give reasons to support your answer.

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

13. Recommend on the features you want the new system to have.

.........................................................................................................................
.........................................................................................................................
Appendix 2

Observation guide

Types of records stored
Types of storage equipments

Type of system used

How records are stored

How do officers retrieve files?

The amount of time taken by an officer to retrieve a file

Storage procedures in place
APPENDIX 3
Focus group guide

Types of records stored
Types of storage equipments

Types of system used

How records are stored

How do officers retrieve files?

The amount of time taken by an officer to retrieve a file

Storage procedures in place