

**MANAGEMENT OF ELECTRONIC RECORDS IN PRIVATE
RADIO CORPORATION LIBRARIES IN KADUNA STATE**

By

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November, 2014

DECLARATION

I hereby declare that this thesis entitled “Management of Electronic Records in Private Radio Corporation Libraries in Kaduna State” was carried out by me under the supervision of Dr. Kosoko Adu Momoh and Dr. Baba Shuiabu Aduku that it was never presented anywhere, either wholly or in part, for the purpose of the award of a degree. All literatures consulted and cited were fully acknowledged within the text and by means of references.

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CERTIFICATION

This thesis entitled "Management of Electronic Records in Private Radio Corporation Libraries in Kaduna State" meets the regulation governing the award of the degree of Master Degree of Library and Information Science (MLS) of Ahmadu Bello University, Zaria, Nigeria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This research work is dedicated to God Almighty for his mercies and divine protection upon my life and my parents, Mr and Mrs. John O Akoh for the good foundation, my husband, Mr. Joseph Oyewumi and daughter, Okikiiyiolaabowonle Oyewumi for their support and encouragement.

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ABSTRACT

The study was aimed at examining electronic records management in private radio corporation libraries in Kaduna State. The study had four (4) research questions: Are there policies for management of electronic records in private radio corporation libraries in Kaduna state? what types of electronic records are available in private radio corporation libraries in Kaduna state? How are the electronic records managed in private radio corporation libraries in Kaduna state? And what are the challenges of management of electronic records in private radio corporation libraries in Kaduna state? Qualitative research method using the phenomenology methodology was adopted. The population of the study was made up of six (6) library staff and six (6) top administrative staff while the subjects of the study were the twelve (12) staff of the private radio corporation libraries in Kaduna State. Purposive sampling was used. Four (4) private radio corporation libraries along with nine (9) staff were sampled for this study. Interview and observation were the instruments used to collect data for the study. Descriptive statistical tools such as simple percentages, tables and charts were used to analyze the data. The study among others discovered that three of the libraries have written electronic records management policy. Despite the presence of electronic records management policy in three of the libraries, it was discovered that one of them (Nagarta AM) has not updated or modified its policy since its formulation. The absent and lack of updated or modified policy as pointed out by the respondents could be attributed to reluctant of formulating and reviewing the policy on the part of the management. The finding also showed that the most common type of electronic records to the private radio corporation libraries in Kaduna State are electronic-programme,

electronic-events and electronic-music. The finding also revealed that private radio corporation libraries in Kaduna State manage their electronic records based on the same management of electronic records process but with variations in the method of creation, organization, use, storage/maintenance and disposal of electronic records. It was recommended, among others that all the libraries should apply the same variations in the method of creation, organization, use, storage/maintenance and disposal of electronic records so that they will be able to tackle problems facing electronic records in their respective libraries as one body since they belong to the same group of private radio corporation and aimed at providing effective services to their users and the society at large.

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LIST OF ABBREVIATIONS

AM:	Aptitude Modulation
CD ROM:	Compact Disc Read Only Memory
DVD:	Digital Video Disc
FM:	Frequency Modulation
GSM:	Global System for Mobile Communication
VCD:	Video Compact Disc
VSAT:	Very Small Aperture Terminal

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The creation of records is a fundamental aspect of the management of any business and operations, be it government or private organization. Today, corporations such as media houses (Radio Corporations, Television Stations and Print Media) and government agencies are creating and receiving records at an astonishing rate. The volumes of these records are not only staggering but the records also come in a variety of formats. According to Charles (2000), records are paper, maps, exhibits, magnetic or paper tapes, photographic films and prints, and other documents produced, received, owned or used by an agency, regardless of media, physical form or characteristics. Similarly, the International Standard Organization (2001) defines records as information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business. The key word in the two definitions is evidence. This means that a record serves as evidence, be it in a physical or electronic format which, at the end of the day, provides an essential means to meet legal, financial and accountability requirements of an organization. A body's ability to function efficiently and give account of its actions could be negatively affected if sound records management principles are not applied.

Records management is a process of ensuring the proper creation, organization, use maintenance and disposal of records to achieve efficient, transparent and accountable governance. Sound records management ensures that all the records that radio corporations create in the conduct of their official business are, and remain reliable, authoritative and authentic. According to Xolite and Jerry (2012), records

management seeks to efficiently and systematically control records that are routinely created as a result of activities and transactions and throughout their lifecycle (creation, organization, use, maintenance and disposal). This means that records management is also based on the principles of regular review and controlled retention or destruction with the general aim of ensuring cost-effective business processes, legal and regulatory compliance, and corporate accountability. Chinyemba and Ngulube (2005) in Xolite and Jerry (2012) asserted that “Proper records management involves establishing systematic controls at every stage of the record’s lifecycle in accordance with established principles of records management.” This, therefore, means that practicing proper records management leads to good management.

Electronic records are records created electronically and stored by means of computer technology and other machines that go with the given electronic records. Machine-readable records cannot be read without the proper hardware and software. A coding process of the information (converting the data into an electronic signal) makes the record machine-readable. Electronic records are used for decision making, reference purpose, legal purpose, information creation (Kansas Historical Society, 2012).

Electronic records are easily updated, deleted, altered and manipulated. If appropriate measures are not taken, the essential characteristics of records -- content, structure and context can be altered or lost in the process. Careful planning and system design are required to ensure that these characteristics of records are both captured and maintained. Examples of electronic records include all types of records in organizations but in an electronic format, just like in the private radio corporation libraries where there are programmes, events, news, music and mails as types of their records in printed format and electronic programs, electronic events, electronic news, electronic music and

electronic mails as their electronic records. These records reside on storage media like CD-ROM, DVD, hard disc, tapes, and optical cards.

Library of Virginia (2009) asserted that records, be it in printed or electronic format should have the following quality criteria:

- A record should serve as evidence of transactions, processes, decisions and performed objectives. A record is kept for a purpose to be a proof of what an organization, agency or administration has done, as evidence of the action.
- A record should be authenticated. Authenticity is needed if records should be trustworthy and be able to be used within an organization over time.
- A record should be accountable. In organizations, accountability is necessary to be able to find a person or persons accountable for their actions. It is also necessary to be able to trace decisions made within an organization.

The above qualities serve as factors that determine the retention value of records.

Retention refers to determining how long the organization needs to keep the record. The record's value is determined by its characteristics (content, context and structure)

Kansas State Historical Society (2012) explained the characteristics of electronic records as follows:

- The information in the record is its content. It is the subject matter being discussed by the record. The content of a record is the same whether the record is on paper, videotape, or electronic.
- The context of a record refers to the relationship between one record and others that “share a unique activity or transaction as their source, and that therefore collectively tell the story of an event or activity.” The record's context includes

information about its creation, use, access and storage. Context also reflects organizational information. This information places the record within the hierarchy of the organization. Maintaining the context is important because a record can be judged trustworthy based on its context.

- The structure of the record is important because it refers to the type of record, who wrote or compose it, to whom it was sent, and when it was created. Charles Dollar, former head of the Machine-Readable Branch, National Archives and a participant in a research project, indicates that structure has logical and physical attributes. The logical attributes pertain to the header information, the body of the record or document, and the signature. Examples of the physical attributes are the font type, spacing, and margins. With paper records, this information is recorded on the actual document and is an integral part of the record. For electronic records, this information exists as part of the record but is also part of the record's metadata.

A record has value because it is needed for ongoing operations, historical, legal and other purposes. However, the process for establishing retention in radio corporation is that the organization identifies its records and determines how long it needs to retain them. If a record has value to the organization for a limited period of time and no historical value, it is a temporary record. Permanent records are documents that are considered to have “sufficient historical or other values to warrant their continued preservation. Once records are no longer needed, they are transferred to the archives (National Archives and Records Services of South Africa, 2006).

1.1.1 Management of Electronic Records in Organizations

The convergence of computer development with advances in telecommunications and transmission facilities has revolutionized the global world in information broadcasting and management of records. Organizations like radio corporations have leapfrogged onto electronic or digital records due to advancement in knowledge and technology in information environment.

Information managers and scholars have attempted to give a proper definition to electronic records. The State of North Dakota Office of Management and Budget Information Services Division (1998) is of the opinion that electronic records are records that are in machine-readable form. According to Duranti (2008), "Electronic records may be any combination of text, data, graphic, images, video or audio information that is created, maintained, modified or transmitted in digital form by a computer or related system." It is further described as "a series of 1s and 0s that require computer hardware and software to interpret and present. Unlike information written on paper or available on microfilm, electronic records are only readable with the help of hardware and software – to translate those 1s and 0s into a language we can understand and see".

The Uniform Electronic Transaction Act (UETA) defines electronic records as "a record created, retrieved, communicated, received, or stored by electronic means." The definition applies to all electronic records systems, whether in microcomputers, minicomputers, or mainframe computers, regardless of storage media, in networked or standalone systems, including small computers, such as memory typewriters, calculators, and embedded systems. Examples include records stored on a server, or on magnetic media, such as tapes, disk packs, compact disks, or optical disks. Electronic

records are made or received by an officer or agency of the state like media house, agency of a town or city, municipal, corporations and other public authority or political entity. Also, section 325L.02 of Minnesota Status of State Archives Department, Minnesota Historical Society (2004) described electronic records as "Information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form".

The description and definition of electronic records by various authors revolve around a single meaning. All electronic records can only be accessed through computer system devices and other technological devices that are compatible with the format of the records. Electronic records are made up of data in binary form and it can be stored in digital media-magnetic and optical media (disk). Hunter (2000) argued that "all electronic records media have finite life spans which are dependent on a number of factors, including manufacturing quality, age and condition before recording, handling and maintenance, frequency of access, and storage conditions." Kansas State Historical Society (2000) stated that electronic records are created from the activities performed in or outside an organization or business. "Records can be created and stored using many different media and formats, including computer system on single medium or as multimedia".

Electronic records are highly flexible in nature, it is easier to maneuver, and transfer. Kansas State Historical Society (2004) argued that "electronic records can be transformed from one context to another through copying, imaging or digital ". Electronic records are easily updated, deleted, altered and manipulated. Section 3.5.3 of Kansas State Historical Society (2004) concluded that "If appropriate measures are not taken, the essential characteristics of records -content, structure, context can be altered

or lost in the process. All records generated in electronic form are highly flexible, unlike paper records. Records in the electronic environment are no longer tangible objects, they are both hardware and software dependent and both can quickly become obsolete Yusuf and Robert (2008). Since records heavily and softly depend on technology, the content is highly prone to transformation and conversion. Duff (1995) argued that, “Electronic records seem transitory, unstructured, and insubstantial. Their content alters depending on the technology that controls it”.

Modern organizations like media houses, financial institutions, and other online organizations depend solely on the technology for quick transactions, information generation, processing and use. Radio Corporations and their libraries rely on electronic devices in information accumulation and dissemination to users. As such, most of their records are in electronic form. The State of North Dakota Office of Management and Budget Information Services Division (1998) posited that, information is vital to the operation of public agencies like media houses which depend on electronically created records to accomplish their basic functions. The article further stressed that technology gives all these agencies the capability to respond to the growing demand for information.

1.1.2 Private Radio Corporations in Kaduna State

Private radio corporations, just like the government radio corporations, from their very inception played an important role in development communication; this is mainly because of its advantage of reaching a large number of people from difference section of the society. The Corporation has evolved through different stages to become what it is today. Private Radio Corporation is when an individual or a group of persons

establish, control and finance any radio corporation. Ariye (2010) said that Ikechukwu emphasized that the enthusiasm and absolute craving for private radio corporations by people was to provide independent news and entertainment which will inevitably create variety and choice as well as competition which is expected to rub-off positively on the discerning and sophisticated Nigerian public.

However, both the government and private individuals are in partnership regarding the establishment, financing and control of the media house. According to Yusuf (2000), the following are sampled programmes aired in the corporations: News (Local and National/International), Drama, Greetings, Documentary, Discussions Interviews, Production Programmes (Children, Women, Youth, Political, Arts and Literature, Agriculture, Health, Enlightenment), Religion, Public Announcements and Advertisement.

The corporations have millions of listeners both in the cities and villages of the state and other vested interest. These corporations broadcast in languages like English and Hausa while others insert programmes in Fulfulde and Kanuri.

There are six (6) private radio corporations in Kaduna State: Nagarta AM, Alheri FM, Liberty FM, Raypower FM, Newage Network and Freedom FM. All the radio corporations have six departments (Administrative, Programme, Accounting and Audit/Finance, News and Current Affairs, Commercial/Marketing and Engineering) except Liberty Radio which have Information Technology Department, thereby having seven departments.

However, some of the corporations has big and rich in-house libraries which are under the programme department. These libraries have greatly influenced and still

influencing happenings in Northern Nigeria and other Hausa speaking areas of West Africa. The libraries provide precise and accumulated services which enable users to complete task successfully. The services include current awareness service, reference service and selective dissemination service. The libraries are managed by librarians who work as information gate keepers, select credible and authentic information for their users. Some of them have their corporations streaming live audio on the internet, thus reaching millions more in the world. (Federal Radio Corporation Nigeria 2008)

1.2 Statement of the Problem

Extensive use of electronic gadgets to capture, preserve and disseminate information has resulted in the proliferation of electronic records. Electronic records are gradually taking a centre stage in both private and public organizations, owing to the role of Information and Communication Technologies [ICT] that is sweeping the traditional work process of all organizations. Electronic records introduce a series of new concerns and issues in the area of managing records. The increasing shifts to newer technologies have caused technology dependent and obsolescence. Because electronic records are machine dependent, it is not possible to access the information without the appropriate hardware and associated software which will make it intelligible.

Also, O'Shea (1996) emphasized that technology dependent and the instability of storage media have changed the traditional approaches to archives and records management, thereby causing the problem of obsolescence and making storage media no longer satisfactory for long term preservation of electronic records. It is in line with this that Wheeler (2002) commented that there is no guarantee that the technology will not become obsolete within another generation. This has caused the need to reexamine

the way and manner information is being captured, preserved and even managed as an evidence of human activities and operations. It also presents a major challenge to our society to maintain the significant electronic evidence of our times for future generations.

Hedstrom and Montgomery (1998) in Digital Preservation Coalition (2012) added that technological change have made electronic records vulnerable to loss and destruction because they are stored on storage media that deteriorate rapidly and that can fail suddenly due to disaster occurrence especially man-made disaster like exposure to heat, lightening, humidity, airborne contaminants, or faulty reading and writing devices. In the same vain, Kowlowitz and Kristine (1997) asserted that “Organizations often lack adequate tools to manage the growing of electronic records and as such lose access to electronic records stored.” That is why Adamu (2003) concluded that record keeping has deteriorated so gradually that it has gone largely unnoticed as a development issue.

Digital Preservation Coalition 2012 observed that the dramatic speed of technological change have called for organizations to employ professional record managers or develop their staff with appropriate skill in order to effectively manage their electronic records and provide quality services to their users.

Meanwhile, Africa and particularly Nigeria, cannot be exempted from the challenges confronting electronic records mostly in the private radio corporations. Adalakun (2000) argued that “Nigerian broadcasting corporations can hardly keep up with technological advancement as in the rest of the world, both because they cannot afford the huge sum of money needed to procure technical equipment and the required trained manpower”. This assertion has serious implication for the approved human and

technological resources required to create, preserve and manage electronic records in Nigeria.

State of North Dakota (1998) opined that “currently, most electronic information systems used to create, receive, and store these records do not prove full record management functionality”. It is in line with this that the preliminary investigation carried out by the researcher revealed the following challenges in the management of electronic records in private radio corporation libraries in Kaduna State. Software and hardware obsolesce, storage media deterioration, technological dependence, organization, inadequate trained electronic record managers, lack of electronic record policy, and disaster occurrence as perceived by the researcher.

1.3 Research Questions

The study sought to address the following research questions:

1. Are there policies for management of electronic records in Private Radio Corporation Libraries in Kaduna State?
2. What types of electronic records are available in Private Radio Corporation Libraries in Kaduna State?
3. How are the electronic records managed (created organized, used, storage/maintained and disposed) in Private Radio Corporation Libraries in Kaduna State?
4. What are the challenges of management of electronic records in Private Radio Corporation Libraries in Kaduna State?

1.4 Research Objectives

This study has the following objectives:

1. To find out whether or not Private Radio Corporation Libraries in Kaduna State have policies for management of electronic records.
2. To find out the types of electronic records that are available in Private Radio Corporation Libraries in Kaduna State.
3. To find out how the electronic records are managed (created organized, used, storage/maintained and disposed) in Private Radio Corporation Libraries in Kaduna State.
4. To identify the challenges in the management of electronic records in Private Radio Corporation Libraries in Kaduna State.

1.5 Basic Assumption

It is assumed that records in Private Radio Corporation Libraries in Kaduna State are poorly managed.

1.6 Significance of the Study

This study on the management of electronic records in Private Radio Corporation Libraries in Kaduna State investigates how electronic records are managed from creation to disposal. Hence, it would complement the available literature in the field and identifying the factors currently preventing effective management of electronic records, especially those in the Private Radio Corporation Libraries.

It is believed that the findings of this study would serve as a working tool for the management of the corporations in terms of creation, organization, use,

storage/maintenance and disposal of so that the corporations vision for the establishment of the electronic records can be achieved.

Also, the results of this research are expected to benefit records management practitioners, students and researchers by exposing them to what have been done and what need to be done in the area of management of electronic records. And as the same time serve as reference point.

1.7 Scope of the Study

The study basically focused on the electronic records of four Private Radio Corporation Libraries in Kaduna State; namely Nagarta AM, Alheri FM, Liberty FM and Freedom FM.

1.8 Limitation

The researcher did not extend the research to other Private Radio Corporations (Newage Network and Raypower FM) in Kaduna State because Newage Network is not fully engaged in radio broadcasting but television broadcasting in Kaduna State while Raypower only transmits directly from the headquarters in Lagos. As such, serves as a signal station in Kaduna State and have very little or no electronic records.

1.9 Operational Definition of Terms

The following terms are defined as used in the study.

Electronic Records: Recorded information that is stored in a form which only a computer and other machines (video player, audio player and others) can read or process.

Management of Electronic Records: Refers to control over all the stages in the life-cycle of electronic records from creation to disposition using electronic media.

Management of Records: Systematic control of records from the activities of creation, organization, use, maintenance and disposition.

Records: Recorded information regardless of form (correspondence files, maps, plans, registers and others) or medium (paper, microfilm or electronic format).

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CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

Management of electronic records has recently become a concern issue to various professionals and even organizations, and this has led to series of publications on electronic records. Therefore, the researcher reviewed the literatures that are relevant to this study under the following areas:

- 2.1 The concept of records and electronic records
- 2.2 The policies for electronic records management
- 2.3 Type of electronic records
- 2.4 Management of electronic records
- 2.5 Challenges of electronic records management
- 2.6 Summary of the review

2.1 Concept of Records and Electronic Records

Records are the output of the business and administrative processes of an organization be it government or private. In other words, it means the final proof that a business or administrative process was transacted. It serves as essential proof of the business that was conducted and should remain unaltered over time for as long as they are needed. As evidence of official business records have on-going use as a means of management, accountability, operational continuity, legal evidence and disaster recovery. They also form the memory of the institution that created them, and by extension, they are part of society's memory and the broader cultural heritage. In some cases records also have a bearing on the rights of citizens. The National Archives and

Records Service of South Africa Act (2006) defined record as recorded information regardless of form (correspondence files, maps, plans, registers,) or medium (paper, microfilm or electronic format). It is in this light that the National Electronic Commerce Coordinating Council (2004) said that record is anything that contains information that has been created or received in the course of business that can be used to provide information about some action, and can be transferred from one medium to another and from one context to another through copying, imaging or digital transfer. A body's ability to function efficiently and give account of its actions could be negatively affected if sound records management principles are not applied.

Records management is a process of ensuring the proper creation, organization, use maintenance and disposal of records to achieve efficient, transparent and accountable governance. Sound records management ensures that all the records that radio corporations create in the conduct of their official business are, and remain, authoritative and authentic. According to Xolite and Jerry (2012), records management therefore seeks to efficiently and systematically control records that are routinely created as a result of activities and transactions and throughout their lifecycle (creation, organization, use, maintenance and disposal). This means that records management is also based on the principles of regular review and controlled retention or destruction with the general aim of ensuring cost-effective business processes, legal and regulatory compliance, and corporate accountability. Chinyemba and Ngulube (2005) in Xolite and Jerry (2012) asserted that "Proper records management involves establishing systematic controls at every stage of the record's lifecycle in accordance with established principles and accepted models of records management." It is in line with this that Florida Department of State Basic of Record Management Handbook (2009) in Buki

(2012) stated that proper records management ensures that information is available when and where is needed in an organized, efficient manner and in appropriate environment. This therefore means that practicing proper records management leads to good management.

The impact of technology on official business and therefore on records management is not a new phenomenon. For example the introduction of the telegraph, typewriter and the telephone fundamentally altered the way business was done and records were kept. The advent of the computer and other electronic records altered record keeping even more. This systems offer significant advantages over conventional manual methods. In particular, they can manipulate large amounts of information and generate a wide range of information products. They offer speed, precision, diversity, flexibility and a rich and comprehensive documentation of process, and it is no wonder that they have been so quickly embraced around the world as a critical information management and communication tool (Kansas Historical Society 2012).

Information managers and scholars have attempted to give a proper definition to electronic records. For instance, State of North Dakota office of Management and Budget Information Services Division (1998) is of the opinion that electronic records are records that are in machine-readable form. "Electronic records may be any combination of text, data, graphic, images, video or audio information that is created maintained, modified or transmitted in digital form by a computer or related system." It is further described as "a series of 1s and 0s that require computer hardware and software to interpret and present. Unlike information written on paper, or available on microfilm, electronic records are not human-readable. They require something –

hardware and software – to translate those 1s and 0s into a language we can understand and see”. (Duranti, 1984).

Electronic records involve recordings on tapes, optical disks, other forms of disks that are created or received by an officer or agency of the state like, Media House, agency of a town or city, municipal, corporation and other public authority or political entity. State Archives Department, Minnesota Historical Society (2004), describes “Electronic records as a record created, retrieved, communicated, received or stored by electronic means.” Also section 325L.02 of Minnesota status of State Archives Department, Minnesota Historical Society (2004) described electronic records as "Information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form".

The description and the definition of electronic records by various authors revolve round a single meaning. All electronic records can only be accessed through computer system devices and other technological devices that are compatible with the format of the records.

Kansas State Historical Society (2000) stated some of the various ways in which electronic records are created: interview, other radio corporations through exchange programmes and request, friends of the corporations and musician’s performance. In addition, it added that electronic records can be created and stored using different storage media and formats, including computer system on single medium or as multimedia.

2.2 The Policies for Electronic Records Management

Electronic records management policies are very crucial in organization dealing with digital or electronic records. They are essential because they constitute the plan of action for safe keeping of these records. According to Gbaje (2011), a policy is a plan of action designed to guide decisions and achieve rational outcomes which may be applied to government, private sector organizations and groups, as well as individuals and it forms the pillar for the successful implementation of any program. By clearly defining a set of procedures, roles and responsibilities, policies help to promote transparency and accountability. He further explained that these policies are crucial parts of managing the risk associated with rapid computer hardware and software obsolescence and vital for ensuring compliance with procedural and legal requirements within an organization.

Furthermore, Jenkins (1987) viewed policy as a set of interrelated decisions taken by a political actor or group of actors concerning the selection of goals and the means of achieving them within a specified situation where those decisions should, in principle, be within the power of those actors to achieve. Media house such as radio corporation need electronic records management policy in order to ensure guidance and authorization on the management of their electronic records as well as to ensure their authenticity, reliability and long term accessibility.

Digital preservation policy which is synonymous with electronic records management policy is most effective when integrated into the overall organizational policy framework, reflecting both organizational commitment to preservation and importance afforded to the activity. From another perspective, Beagrie (2003) affirmed that lack of electronic records management policy and the inability of organization to

update or modify the policy is a major drawback to the management of electronic records.

2.3 Types of Electronic Records

Electronic records are made up of data in binary form and stored in electronic media. Hunter (2000) asserted that electronic records found in media house include electronic programs, electronic events, electronic news, electronic mails, and electronic music. Similarly, State of Florida (2010) stated that the following are the electronic records available in media house which needed to be managed in order to stand the test of time; electronic-programs, electronic-events and electronic-music which are recorded or transmitted in digital form such as electronic spreadsheets, word processing files, databases, electronic mail, instant messages, scanned images, digital photographs, and multimedia files.

2.4 Management of Electronic Records

The emergence of the information age or digital age indicates that a lot of our history, "cultural memory and records of evidence is now recorded in electronic format." Terry (1992). Therefore, there is the need for proper management of electronic records in our private and public agencies. As with records in other formats, electronic records must be managed through their entire life cycle from creation, when the records are created or received; through their active life, when the records are accessed frequently (at least once a month); through their inactive life, when the records are no longer active but have to be retained for a period of time for legal, fiscal, administrative, or historical reasons; until their final disposition which could be destruction or

preservation as a permanent record. Again, the society needs to manage records as this will help to provide useful and handy information to present generation and the generations to come. To this need, modern electronic records are necessary. Thus, the State of North Dakota Office of Management and Budget Information Services Division (1998) posited inter alia "The integrity of maintaining electronic records over a period of time is very critical as it helps to show the evidence of events. The preservation of this integrity requires that all records worthy of management be reliable, complete, authentic, and possess sufficient context."

Management of electronic records thus provide the framework for ensuring that records are either created or received, and maintained to serve as evidence for accountability, transparency and what transpired in the society between an individual, governments or firms and corporate organizations. It allows for the systematic, controlled, and authorized storing and retrieval of records throughout an organization. Authentic and reliable records provide an unambiguous link between an authorization, a particular assigned person, and data. They serve to identify abuse, misuse, and non compliance with instruction in the civil society. Meanwhile, modern organizations are ceasing the opportunity of current information technologies to execute their operations electronically over networks. Such includes technologies like digital imaging, Electronic Data Interchange (EDI), Geographical Information Systems (GIS) to execute their paperless activities. These technological changes and manipulations according to Alan (1997) have a substantial impact on organizational abilities to create, managed and use records to support legal responsibilities and business needs.

These new technologies offer vast enhanced ways and methods of gathering information for the citizens and about the citizens. Archival Authority of New South Wales (1995), “agencies need ready access to the right information at the right time to provide services and make informed decisions. The objectives are to conduct the business transaction satisfactorily and to maintain records of what transpired for future references.” Electronic records are characterized by series of management challenges for information managers attempting to preserve evidence and its entire management. For instance, the challenge is to maintain records in a way which will enable retrieval of all documents relevant to a transaction when they are needed. Also the challenges to ensure that records are not held for any longer than necessary, in order to avoid both overloading systems and to avoid indiscriminate dumping, Adamu (2003) opined that, "with growing quantity and diversity of electronic records, we face a major challenge, that is, developing strategies, standards and process to ensure electronic records are accessible for as long as they are needed".

Interestingly, many organizations and government units like Kansas, Ohio and Minnesota governments have adopted record management, workflow and software. The aims and the rationale of these are to capture records for easy retrieval and use when necessary and through its overall management. Archival Authority of New South Wales (1995) looked at electronic records management as the efficient management of records stored on computerized systems.” The key to management of electronic records revolves round the entire life cycle of such records. Considering the fragility and the prone nature of electronic records, it therefore needs qualify manager and sound management by adopting "best practice"- that is, practices formally adopted or generally

accepted by a profession or discipline which will help organizations in preservation of the integrity of electronic records (Kowlowitz and Kristine, 1997).

2.4.1 Life Cycle of Electronic Records

Just like other forms of record, the life cycle of electronic records is an important concept in records management. It is the starting point for creating electronic records management program from creation through to disposition. Luyombya (2010) stated that records lifecycle theory was developed at the National Records and Archives Administration of the United States of America in the 1930s, and this is based on the concept that a record has a life similar to that of a biological organism: It is born (creation), It lives (use, storage and maintenance) and It dies (disposition) meaning that the life cycle is based on the idea that records become less important as time passes. In agreement with this, Schulenberg (1956) as quoted by Luyombya (2010) asserted that records move from one phase to another, over time, in a linear rather than a cyclical way, from creation through to disposition. He also said that creation, use and maintenance are the primary stages of record's life while the preservation in an archive provides an opportunity for secondary use. Similarly, Kyobe etal (2009) added that electronic records life cycle would involve the creation, organization, use, storage and maintenance, and disposition.

Stages in the Lifecycle of Electronic Records

Putting together the explanation by the above authors on the different stages of electronic records lifecycle, there are five stages in electronic record life:

1. Creation of information in form of records

2. Organization of records in some logical system
3. Use of records
4. Storage/ Maintenance of record
5. Disposition of records

2.4.1.1 Creation of Electronic Records

Organizations like media houses (radio corporation, television station and print media) financial institutions, and other online organizations depend solely on the technology for quick transactions, information creation, processing and use. Radio Corporation libraries rely on electronic devices in information accumulation and dissemination to the timing audiences, and for effective service delivery. As such, most of their records are in electronic form. This is consonance with State of North Dakota Office of Management and Budget Information Services Division (1998) which posited that information is vital to the operation of agencies like media Houses, they depend on electronically-created records to accomplish their basic functions.

These electronic records begin their life cycle when they are created or received. What constitutes these records is established by the organization's policy manual. Duff (1995) asserted that these records are created daily from interview, other radio corporations through exchange programmes and request, friends of the corporations, anonymous sources, musician's performance, e-mails, recorded telephone calls, printed documents, word processing documents, voice mails, faxes, instant messaging, text messaging, digital images, scanned paper documents and other data showing how decisions evolved. These information according to Yusuf and Robert (2008) are those

centered on politics, sports, entertainment, news, religion, health, education, culture and tourism, agriculture, economic, weather forecast, transport and science. And they reside on variety of media such as personal hard drives, network drives, tapes, CDs, DVDs and flash drives. Some information may also be created and reside temporarily on remotely attached devices like personal digital assistants (PDAs) or memory sticks. State of Florida (2010) asserted that electronic records can be created on a computer. When these records are created on computers as data files in a database management system, electronic records management principles must be applied to provide appropriate and effective recordkeeping practices that ensure statutory compliance. Organization must make sure the data are related in such a way that users can meaningfully access the database.

In the words of James (2012), all records created in electronic form are highly flexible, unlike paper records therefore, they become highly flexible in nature, easily updated, deleted, altered and they are easier to maneuver and can be transformed from one context to another through copying, imaging or digital transfer. Kansas State Historical Society (2004) argued that records in the electronic environment are no longer tangible objects, they are both hardware and software dependent and both can quickly become obsolete and since the records heavily and softly depend on technology, the contents are highly prone to transformation and conversion which leads to creation of newer records.

However, some configurations of the life cycle divide creation stage into two parts. The first part is where the information is gathered and recorded on paper or in an electronic format but remains only with the creator. The second part, when the creator shares this information with others, is referred to as use. Therefore, radio corporation

record is created once it is determined that the information meets the criteria for record creation. The creators of the records include reporters, producers, presenters, artists, interviewers and librarians.

2.4.1.2 Organization of Electronic Records

Management of electronic records is never complete in itself without the description and organization for easy retrieval and access to such digital records. Organizations should protect the integrity of the records by capturing them into record keeping systems that routinely capture all records, organize the records in a way that reflects the functions of the office, protect the records from alteration and/or unauthorized disposal, and provide ready access to the information contained in the records. Electronic records are organized intelligently by arranging them into categories/subjects through which users navigate to find individual records.

According to David (2007), organization refers to the process whereby electronic records are arranged using the classification system that matches the records subject. Selection of the appropriate system should also be based on characteristics of the agency's records practices and software limitations. However, classification system goes hand in hand with cataloging to the extent that some libraries group them together as technical services. In agreement with this, Popoola and Udo (2001) asserted that cataloguing and classification was once extolled as democratizing knowledge. On the other hand, they have been described as a necessary evil, an inevitable way of organizing library records.

Therefore, classification is the system of coding, assorting and organizing records (printed or electronic) in a logical order according to their index, subject or / and degree of likeness and allocating call number to them. It is also the scheme for the arrangement of records in logical sequence according to the subject on shelves, subject catalogue and arrangement of information on the computer. Cataloguing is strictly the art of describing records, pointing out important bibliographic information about record(s). Examples are authors, composers, artists, title, subject, publishers, presenters, producers, place of publication, date and time of presentation, date and time of repetition.

The main idea is to develop a system that is workable yet maintains record integrity. If this is done consistently for all electronic records, the disposal and retention decisions will be properly applied to the right records, and they will be archived/destroyed at the right times. The staff will also spend less time looking for information and more time actively acting on the information, thereby making access to information easier which therefore form the concept and purpose of electronic records organization.

Baumann (1988) directed his view of organization towards intellectual control of records. The intellectual control of electronic records revolves round "metadata"- it is regarded as "data about data". This assertion was further stressed by Anne and Adrian (2003) that "metadata is structured information that describes and allows us to find, manage, control, understand or preserve other information overtime". Metadata is attributed to records in an electronic environment that information managers have always collected to describe and control records and other information resources. Radio Corporation organizes their electronic records; using special classification.

Processes of Electronic Records Organization

To ensure that authentic and reliable records are created and maintained, the records should be captured into the managed environment of the classification system at creation. Audio Engineering Society and the Internet Uniform Resource Locator (2003) opined that organization of records is never complete without its processes. The followings are the processes:

Identification- When these records are sent to the library from the production studio or the continuity studio by the producer, reporter or presenter, the librarian in most cases plays the record to identify the type of information in the records, the composer in terms of music and others, and be sure there is no problem with the information and the records.

Assigning- This means given numbers to the electronic media containing electronic records as they come into the library. These numbers are mixed with the first initials of the names of the corporations but some of the corporations use only numbers.

Labeling- Labeling means writing or typing key information about the electronic records on the electronic media. This labeling is done externally on the cover of the electronic media, cabinets and shelves. External labels (or the equivalent automated management system) for electronic recording media used to store permanent or long-term records shall provide unique identification for each storage media including software in use at the time of creation so that all authorized users can identify and retrieve the stored information with ease. The information to be labeled or written on the record covers include the special number given to the record, title of information contain in the records, date and time for the programs to be played, synopsis of the program, name of the producers or and presenters.

Logging-This means entering the labeled information on the cover of the electronic records into a book inform of a register manually or and the computer. The logging on the manual register is done numerically as the records come into the library. When the register is filled up, they are numbered and kept for immediate or future use. For the ones in the computer, they are logged in as files by title of information contain in the records, date and time for the programs to be played, synopsis of the program, name of the producers or and presenters. The files are later grouped into folder by their subjects. It is in line with this that State of Florida (2010) opined that records within a database on the computer are organize in three ways namely: hierarchical, relational and network databases.

Methods of Organizing Records in Database

Hierarchical databases- These are tree-structured. That is, their logic goes from the broader meaning to a narrower meaning through one or several steps. Each step branches out into smaller units, and with each step, other options are eliminated. It is a process of "narrowing the field" to the desired item. Although this structure simplifies searching, it is not particularly well suited for extensive lists of information.

Relational databases- This allows data to be accessed based on relationships among several data base files. This means that within a predetermined set of data fields and their relationships, you can retrieve specific information through one command.

Network databases- This permit data to be arranged into groupings that can be connected through the use of pointers. These pointers give users a great deal of flexibility and speed in searching for data, although the pointer structure is relatively complex to establish.

Similarly, Texas State Government (2011) asserted that electronic records after creation are organized in the following ways: Grouping files functionally into records series, Arranging files in a logical order and Standardizing file names.

Grouping Files Functionally into Records Series- Records series is a group of identical or related records that are normally used and/or filed as a unit, and are evaluated as a group for retention scheduling purposes. Electronic records are filed in the computer as electronic files, and they are arranged into series based on their programs and activities function.

Arranging Files in a Logical Order- Electronic files are arranged in a logical order within the records series in the computer. The arrangements are done in the following ways: Alphabetically (name of person, place, subject), Numerically (social security number, project number), Chronological (date and time) and Alpha-numerically (a combination of letters and numbers, such as an abbreviation of a name and a date).

Standardizing File Names. This is a system of arrangement whereby the computer operating systems require that every new file is expected to be given a file name. This file name is differentiated from the already existing one by adding decimal and a three-character extension to the already existing one. Some software automatically creates file name extensions based on the software used to create the document while others allow users to create, add, or leave out extensions. Since file names must be unique, whereas file name extensions are common to the file types, sorting files by file name extension is a useful feature in electronic records management. This is used as a means of locating and arranging general types of files.

There are many benefits to standardizing the terminology used in naming electronic files: Accessing files easily and rapidly, training new employees in less time,

avoiding the loss of information, Naming files quickly and easily, sharing files more easily and Identifying groups of files eligible for disposition at the same time.

Shelving- This is the last part involve in the process of electronic records organization. This process is peculiar with the magnetic and optical disk. After the above processes have been done, the electronic media which also store the electronic records are arranged on the shelves or cabinet by subject and their special number which can be either alphabet (the first two or three initials of the major names of the corporations) or numbers or numbers only.

2.4.1.3 Use of Electronic Records

The growing use of electronic records has significant effects on increasing organizations performance and efficiency in many ways. The use of electronic records brought a great deal of changes and advantages to organizations' ability in business processes, transmission, communication, work environments, financial management, staff organizations, and decision-making.

The use stage of the records lifecycle refers to that period of time when the record is routinely consulted. This stage has also been defined as that period of time when the organization actually uses the information. Once a record is created electronically, it is normally organized and used as an information tool for decision making, for entertainment, documentation or reference, production, in answering inquiries or in satisfying legal requirements. Therefore electronic records are seen as products of information and communication technologies and they have been found relevant to all activities of life.

However, Pullinger (1999) in Yunana (2011) observed that the extent to which the use of records becomes part of normal daily activities depends not only on the discipline concerned but also on the role and status of the users of the records and on the specific information needs. It is in line with this that State of Florida (2010) stated that for any records to be active, it must be use frequently (at least once a month).In addition, National Archives and Record Service of South Africa (2006), before any record can be used, it must be that which can be located, retrieved, presented and interpreted. It should be capable of subsequent presentation as directly connected to the business activity or transaction that produced it. The contextual linkages of records should carry the information needed for an understanding of the transactions that created and used them. It should be possible to identify a record within the context of broader business activities and functions. The links between records that document a sequence of activities should be maintained.

Anthony 2004 in Rick 2005 opined that these electronic records are use by typical users. These users of electronic records in private radio corporation libraries include government representatives requiring information about government activities, professional or academic researchers from a wide range of disciplines, journalists, amateur researchers, and members of the public, others wishing to have some contact with the primary sources of their national culture and tradition and foreigners from other countries. In addition, Terry (1994) asserted that a significant number of users of any radio corporation libraries are mostly producers and researchers even from other countries. This use of electronic records will continue to grow as information networks develop and as the communities increasingly recognizes its need to share information about culture and heritage.

2.4.1.4 Storage and Maintenance of Electronic Records

Electronic record is often stored on storage media. Records must be stored for access prior to being destroyed according to the rules stated as organizational policy. Part of the reason for such emphasis on proper storage relates to privacy issues. Prudent organizational policy addresses security as a major part of responsible record maintenance.

There is often a presumption that because information is stored in the computer or on any other electronic media, it is somehow automatically preserved all time. Unfortunately, electronic storage media can easily become unreadable over time due to physical, chemical, or other deterioration. Special care and precautionary measures must be taken to avoid the loss of electronic records stored on electronic media and make them available and accessible throughout their useful life. In line with this, James (2002) asserted that when decision is made to keep the record for use at a later date, it must be housed in some type of storage device, and protected in the maintenance of electronic records. After electronic records are stored, request is made to retrieve it from storage for use. During this stage, records are frequently referred to and remain active.

According to Kimberly and Piers (1999) and Audio Engineering Society and the Internet Uniform Resource Locator (2003), the followings are measures to be taken to avoid loss of electronic records stored on electronic media:

- Preservation duplicates of permanent or long-term records must be stored in an off-site storage facility with constant temperature (below 68 degrees Fahrenheit) and relative humidity 20 to 30 percent) controls.
- The provision of back up electronic records on a regular basis to safeguard against the loss of information due to equipment malfunctions, human error, or other disaster. Other

electronic records media should be stored in a cool, dry, dark environment when possible

- To keep equipment from overheating and being damaged, the server room should be temperature controlled, and set at about 65-75 degrees.
- Organization should annually read a statistical sample of all electronic media containing permanent or long-term electronic records to identify any loss of information and to discover and correct the cause of data loss.
- Smoking, eating, and drinking in areas where electronic records are created, stored, used, or tested prohibit.
- External labels (or the equivalent automated management system) for electronic recording media used to store permanent or long-term records shall provide unique identification for each storage media including software in use at the time of creation so that all authorized users can identify and retrieve the stored information.
- For all media used to store permanent or long-term electronic records, agencies shall maintain human readable information specifying recording methods, formats, languages, dependencies, and schema sufficient to ensure continued access to, and intellectual control over, the records.
- Storage media containing electronic records should not be stored closer than 2 meters (about 6 feet, 7 inches) from sources of magnetic fields, including generators, elevators, transformers, loudspeakers, microphones, headphones, magnetic cabinet latches and magnetized tools.
- Electronic records on magnetic tape or disk should not be stored in metal containers unless the metal is non-magnetic. Storage containers shall be resistant to impact, dust

intrusion and moisture. Compact disks should be stored in hard cases, and not in cardboard, paper or flimsy sleeves.

- Personnel in charge of electronic records especially master copies of records should be properly trained in the use and handling of the records and associated equipments.
- Conversion of storage media should be done in sure a way that it will be compatible with the organization's current hardware and software to ensure that information is not lost especially with the changes in technology or deterioration in storage media. However, before conversion of information to different media, agencies must determine that authorized disposition of the electronic records can be implemented after conversion.
- Agencies must annually read a statistical sample of all electronic media containing permanent or long-term records to identify any loss of information and to discover and correct the cause of data loss. And must test all permanent or long-term electronic records at least every 10 years and verify that the media are free of permanent errors. More frequent testing (e.g., at least every 5 years) is highly recommended. Ayeni (2000) in Buki (2012) posed that lack of proper method of electronic records storage and poor maintenance culture can lead to loss of some important electronic records in organizations and businesses because retrieval devices like indexing among others are not prepared for these records.

2.4.1.5 Disposition of Electronic Records

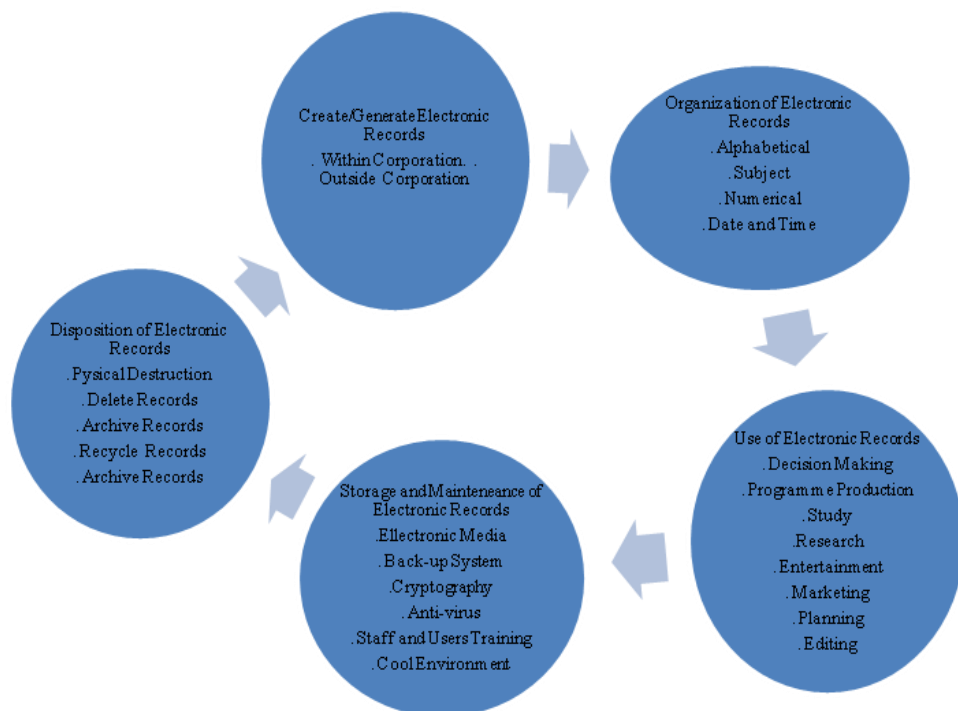
Final disposition is the last stage in the life cycle of records, when they no longer serve a useful purpose for agency business. At this point, identified records may be destroyed (deleting the content, destroying the physical records) or transferred to the archives for permanent preservation if they only have historical and other values.

At the disposition and retention phase, when records decline in value and retrieved records are no longer needed for immediate use, records become inactive, and are then removed from active storage in office space, destroyed, or transferred to an inactive storage facility or building outside the library for the duration of their retention life. This help to prevent records from the attack of any form of disaster. However, the last phase in the record life cycle is disposition by destruction. (Rockefeller Archive Centre 2008)

According to James (2012), the objective of records destruction is to remove the record permanently from possible use after it has become obsolete and inactive, and to ensure that sensitive or confidential information does not become public. Because destroyed records cannot be recalled, extra care should be taken before records destruction. All statutory requirements must be satisfied. He furthered said final disposition of any of the electronic records must be according to an approved policy on destruction and transfer. However, electronic records containing information that is confidential or exempt from disclosure, appropriate destruction methods include physical destruction of storage media such as by shredding, crushing, or incineration; high-level overwriting that renders the data recoverable; or degaussing/demagnetizing. Also, electronic records that are not worth revisiting (entertainment, advert and storytelling like tale by moon light) are disposed almost immediately after their use

because they are inactive after use and to avoid them occupying space. This is against the national broadcasting commission code which stipulated that electronic records should be deleted and recycled after three (3) months.

Diagram showing the Lifecycle of Electronic Records



2.4.2 Electronic Record Keeping Systems

Management of electronic records flourishes in an environment where there is proper recordkeeping system. Electronic recordkeeping system enhances proper control and managerial manipulation of records. Adamu (2003) described electronic records keeping system as “records collected, organized and categorized to facilitate their preservation, retrieval, use and disposition”. Ohio (2003) clearly considered recordkeeping system "as those systems that capture, manage and provide access to records overtime." The rationale for recordkeeping are to provide evidence of functions,

activities and transactions that is the business process. Recordkeeping systems maintain linkages to the activities they document and preserve the content, structure and context of the records. This is evidence that the totality of electronic records management is wholly and solely depends on recordkeeping system of electronic records.

Electronic recordkeeping system chiefly relies on information technologies like computer hardware and software. Adamu (2003) stressed that “electronic recordkeeping may be either a distinct system designed specifically to provide recordkeeping functionality or part of another system.” Metadata and all functional description of records in digital form are systematically embedded in the recordkeeping system design.

Tracing the historic evolution, the 1980's and 1990's according to Terry (1994) and Kenneth and Jane (1999) witnessed dramatic and frequent changes in technology- personal computer, internet and the development of database management system. These changes resulted in the way data; records are created and handled managerially. These changes have further metamorphosed into the development of database management system, Enterprise Resources Planning, Ide, et al (2000) reiterated that, "Digital Asset Management systems provide access to and storage for these rich media assets, which are digitally indexed and often associated to specific rights management information."

Ralph (1992) listed the advantages of these recordkeeping systems as “ability to limit and control redundant data in multiple systems and also, it improves data integrity”. They further enjoined the database managers and information managers that this system is more efficient, which minimizes data redundancy and maximizes data integrity.

Every agency like media house depending on digital information and keeping of records electronically need to design a recordkeeping system to enhance the management and administration of their records. Cox (1992) in his assertion, maintained that, "electronic recordkeeping and systems have caused a paradigm shift, he further stresses that the introduction of electronic recordkeeping systems has dictated a changed in a core concept and the need to replace "the life cycle with the continuum".

The State of North Dakota Office of Management and Budget Information Services Division (1998) emphasized that "Electronic Recordkeeping Systems must meet the following criteria:

- Recordkeeping system must be sure information they created are credible.
- Contain constant, structure, and context created by the transaction they document.
- Quality controlled at input to ensure the information in the system correctly reflects what was communicated in the transaction.
- Records must continue to reflect content, structure and context within any system by which the records are retained over time.”
- In addition, the system maintains inviolate records, protect any accidental or intentional deletion or alteration and enhance access and management. These requirement summaries various organizational views like Department of Defense Standard, The National Archives of Australia, as noted by David (1993).

Agencies must critically look into their requirement vis-à-vis the electronic recordkeeping system designs in line with the organizations operation processes and information needs and flows. Unless electronic records are created and managed properly in well-designed systems that can guarantee their reliability, durability and accessibility, electronic record managers are not going to have many useful records as

argued by Anne and Adrian (2000). This idea is in direct relationship with radio corporations that maintain electronic records, recordkeeping system of high integrity is need in order to keep to the records and happening of the society in which it operates and the world at large. Anne elaborated further that, if such recordkeeping should be able to preserve records for long-term use. This will help organizations have the type of records that are essential for the efficient, effective and accountable conduct of their business operations.

The methodology that revolves round the management of records focuses on managing and controlling records serially and its objectives focuses on evaluating the processes, creating records and the systems for managing them. David and Margaret (1993) for example, identified one prominent goals of records management as the identification and capture of records generated in the context of business processes, and the creation of systems that manage and preserve these records. In essence, this idea of David and Margaret is highly concerned with focus on the management of recordkeeping system. Therefore, effective and reliable recordkeeping system is needed for the overall goal and objective of electronic records management.

Information and communication centres and departments as well as their generated records represent valuable and useful nation's assets. The value of these records should be regarded as enormous and paramount and as well as a huge investment. Ohio State Agencies (2003) maintained that, "the resources spent on adding records management functionality to information management system and electronic recordkeeping system should not be regarded as an unrecoverable cost. Instead, the potential value of information technology will often go unrealized without proper electronic records management."

2.4.3 Reasons for Using Electronic Records

In the past, paper records were filed in a records center and the records clerk or a designated officer would declare and organize the record and manage any activity against the record including its final disposition. All the creator of the record needed to know was where to drop off the record and the rest was taken care of by the records clerk or officer. With the advent of electronic records, all of that has changed and the burden of organizing and declaring records has moved, by necessity, from a dedicated records clerk to the knowledge worker who may think that records management activities are important but may place it at the bottom of the daily activities list.

According to Porter-Roth (2006) and Environmental Protection Agency (2012), Records management is important and use because it:

Reduces Litigation Risks. When electronic records are managed according to electronic records management plan that is applied throughout an organization, electronic records are more defensible if and when they become part of a legal action or audit. Because the records are in a controlled environment, an organization can demonstrate that the records presented are valid, they have not been altered, and that any records destroyed were destroyed in the normal course of business.

Preservation. Organizations have records that contain vital information. The records themselves are of historical, legal, financial and administrative importance, yet filing and storage falls well short of what it should. If only hard copy is available, then the process of viewing and searching through documents can, unintentionally, damage records. These issues are addressed effectively by creating electronic versions of the records. Hard copies can be archived and preserved more effectively if access to information is available electronically.

Easy Access. Organization records are most often filed and stored in a vault or building where access to these records is only available through an in-person visit. With government records housed separately in locations across the thousands of miles within the United States, to say that valuable public and private information is very difficult to retrieve would be an understatement. When records are converted into an electronic format they are made available for search and retrieval easily for who so ever need it. But the private records can only be accessed with approval.

Improve Efficiency and Productivity. Time spent searching for missing or misfiled records are non-productive. A good electronic records management program can help any organization upgrade its recordkeeping systems so that information retrieval is enhanced, with corresponding improvements in office efficiency and productivity. A well designed and operated system can facilitate retrieval and deliver information to users as quickly as they need it.

Control of Creation and Growth of Records. As the day goes by and work continues in our offices and businesses the amount of papers continue to escalate. An effective records management program addresses both creation control (limits the generation of records or copies not required to operate the business) and records retention (a system for destroying useless records or retiring inactive records), thus stabilizing the growth of records in all formats.

In addition, National Archives of Australia (2014) added that electronic records management provides a number of efficiency and other benefits like:

Storage Savings. Managing information electronically requires less storage space and reduces the rate at which storage needs increase. It will reduce the costs that you would

otherwise incur for storing, retrieving and handling new paper records. It will also reduce stationery costs associated with creating paper records, such as paper, file jackets, labels and printer cartridges.

Improved Business Processes. Managing your records electronically allows organizations and businesses to maximize the value of their asset. Access to well-managed, trusted and accessible electronic information is a valuable resource for staff over time.

Improved Service Delivery. Workflows and processes benefit from better access to and faster retrieval of information. Service delivery improves when staff can quickly locate the right information when it is needed. Well-managed electronic records means organization/business records are available and usable now and in the future. Assured continuing information access is vital to continuous improvement of services, outputs and operational effectiveness.

2.4.4 Managers of Electronic Records

A Records Manager is someone who is responsible for records management in an organization. Section 4 of the International Standard Organization (2001) stated that records manager, set policies and standards, assign responsibilities and authorities, establish and promulgate procedures and guidelines; provide a range of services relating to the management and use of records, design, implement and administer specialized systems for managing records; and integrate records management into business systems and processes.

The managers of electronic records differ with organizations. The following are inclined to manage electronic records in organizations including the radio corporation libraries; archivist, historians, librarians and database administrators. Their role is to manage or coordinate the records activity of any agency.

2.5 Challenges to Effective Management of Electronic Records

The challenges of electronic records management especially in radio corporation libraries are enormous. Electronic records need proper and effective management considering their values, it is necessary for all electronic records to be housed in electronic components with long term accessibility and that can be upgraded or transferred from one component to another. According to Anne and Adrian (2000), the challenges of electronic records faced by most organization today are conservation, preservation, space problem, conducive environment, security and protection against the widespread amnesia now threatening electronic records.

Fisk (2003) and Patrick (2005) eluded to the fact that disaster such as computer viruses; humidity and temperature constitute major challenge to electronic records in many organizations. Computer viruses are major treats to electronic records in any organization. This is because they are capable of erasing vital and useful records. On the other hand, humidity and temperature are natural factors that if not properly controlled can also destroy valuable records in any organization? Thus the following could be viewed as challenges and problems to a successful preservation and security of electronic records:

Technology Obsolescence. One of the effects of constantly evolving technology is the rapidity with which hardware and software become obsolete. This means not only that

offices must work to maintain the most efficient hardware, but also that we work to ensure access to older records that have been created with these out-of-date tools. When hardware and software get obsolete, it is always difficult to access those older files. Some examples of this hardware include Commodore 64 and WANG computers, 8 inch, 5¼ inch and 3½ inch floppy disks are now rarely if ever used, even though they were the predominant storage devices for electronic records for decades. Software examples include WordStar and early version of Microsoft Word and Corel.

Some of these changes in technology are a consequence of changing in hardware and software, economics and markets, harsh environmental conditions in which computer storage media are sometimes stored, high temperature, humidity and contaminants, which often result to partial or complete loss of electronic data.

Overcoming technological obsolescence often requires frequent and perhaps considerable investment in financial, human and technological resources. Conversely, a lack of committed resources will render any electronic records management strategy ineffective and unsustainable. If an organization is going to commit to using information technologies, it needs to guarantee that it will provide the resources needed to maintain and upgrade those technologies indefinitely.

Technological Dependence. Electronic records depend on technology. They are created and managed by computer hardware and software. Therefore, electronic records require mediation in order to be accessed. It is not possible to hold a computer disk up to the light and read it, as one can read a paper document or even with the aid of a magnifying glass, a frame of microfilm. Because information technologies keep changing, and because electronic records cannot be used without the necessary

technologies, individuals and organizations can quickly become dependent on technologies for their essential information. Hardware and software have to be upgraded regularly to ensure continuing access to information and records. As technology changes, records need to be moved to new systems – migrated – so that they can be used. Otherwise, the formats in which records exist are incompatible and the records are increasingly inaccessible. An electronic document cannot be placed on a shelf, like a bound ledger or folder of documents, with any guarantee that it will remain usable in ten, five or even one year into the future.

Storage Medium Deterioration. This means declining or degenerating in the quality and value of information storage medium. Storage medium is the material where information is saved for a period of time either manually on print material or electronically on electronic material. For the purpose of this study, only electronic material (media) will be explained briefly. Electronic media include magnetic media and optical media.

Magnetic media has been the primary computer storage technology since the 1950s. They are also the most widely used for audio and video recordings, store and retrieve information faster than other storage media. Examples include cartridge, cassette, floppy disk, hard disk, magnetic tape. Optical media is a high –density storage medium where digitally encoded information is written and read by means of laser. They are available in write-once and rewritable media. Examples include optical disk, digital versatile disc (DVD), compact disk (CD), optical cards.

However, a number of factors cause deterioration. Strong sunlight, heat (from the sun, radiators, heating vents, air conditioners and other appliances), dust, dirt, smoke, oil, moisture and high humidity, and finger print.

Inadequate Trained Electronic Record Managers. Trained electronic record manager is someone who has acquired necessary skills by undergoing a course of study in the discipline. Any electronic record manager who lack the appropriate training in this field will suffer from the “garbage in-garbage out” syndrome. To avoid this, electronic records manager should be intimately involved in the electronic records management process from the start by undergoing training in basics records management, ability to categorize and manage the records.

Lack of Policy on Management of Electronic Records. Policy is a plan of action designed to guide decisions and achieve rational outcomes which may be applied to government, private sector organizations and groups, as well as individuals and it forms the pillar for the successful implementation of any program. To effectively manage records and information, organizations should develop, implement, and maintain a codified set of records management policies and procedures. This is especially important in the current milieu where personnel must no longer manage just paper-based records, but the proliferation of records in electronic form in conjunction with paper, microform, and other formats.

Quality policies and procedures should not be static but flexible for modification purpose, subject to review on a routine basis, to be certain that they are effective. Therefore, lack of electronic records management policy affect the management of the records from creation to disposal stage.

Disaster Occurrence. This means an occurrence causing widespread destruction and distress in a given community. After a disaster, even if no one has died, there is a lot of damage to people's homes, farms, workplaces, schools and libraries that must be repaired. Types of disaster are natural and man made disaster.

Natural disasters are often frightening and difficult to understand, because we have no control over when and where they happen. What we can control is how prepared we are as communities and governments to deal with the dangers that natural disasters bring. Natural disasters include things such as volcanic eruptions, earthquakes, floods, tornadoes, landslides and hurricanes. Man made disasters is also known as anthropogenic disasters and they as a result of human intent, error, failed systems or negligence. These include technological hazards, sociological hazards and transportation hazards among others. They can cause irrevocable damage if the right measures are not put in place to avoid the same. This is where the need for disaster preparedness comes in. It goes a long way to cushion people from the after effects of such happenings. When this occurs, it is often as a result of intent and the end results are even more catastrophic with a large percentage of those involved losing their lives or alternatively ending up with major defects or long term injuries. Other types of manmade disasters which are just as catastrophic include nuclear bomb, chemical spill, oil spill, arson and terrorism. People need to be educated on the risks in their area, and what to do when a disaster strikes.

Agencies and organizations including private radio corporation libraries have to identify, organize and protect their essential and/or vital records. As such, there is need to develop plans for coping with emergency situations, from minor disruptions to major

disasters to ensure the continuity of electronic recordkeeping and information processing systems. The records management plan should include disaster preparedness and recovery needs and incorporate this specific plan as a component of the overall records management plan.

Back-up media created for disaster recovery purposes must be stored in an off-site storage facility with constant temperature and relative humidity controls. Places that are more likely to have natural disasters, such as the earthquake-prone Pacific Ring of Fire, or coastal areas vulnerable to hurricanes, require accurate methods of predicting disasters and warning the public quickly. Once the people have been informed, evacuation routes must be provided so that they can all leave quickly and safely, even if they travel by foot. Emergency warnings and evacuation plans are not enough. Where there is a high risk of earthquakes, buildings need to be strong and enough to survive a quake without collapsing. Where hurricanes and flooding are a problem, levees and dams must be strong enough to hold floodwaters, and natural drainage systems must be maintained to allow waters to flow back into the ocean.

2.6 Summary of the Review

This chapter reviewed literatures that are related to management of electronic records. From the appraisal, it was reviewed that the concept of record and electronic records is that records no matter the format should serve as essential proof of the transaction of any business or organization. Furthermore, electronic programme, electronic events and electronic music are the common types of electronic records available in the libraries under studied. It was also established that these electronic records are managed through

a lifecycle process starting from their creation, organization, use, storage/maintenance and disposition.

This chapter further discussed policy as related to policy and management of electronic records. The literatures reviewed prevalent problems with electronic records management.

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CHAPTER THREE RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the method and procedures used in the collection and analysis of data. It is organized under the following sub-headings;

- 3.1 Research Method Adopted
- 3.2 Population of the Study
- 3.3 Sample and Sampling Procedure
- 3.4 Instruments for Data Collection
- 3.5 Validity and Reliability of Instruments
- 3.6 Procedure for Data Collection
- 3.7 Procedure for Data Analysis.

3.1 Research Method Adopted

Qualitative research method was used for this study. According to Creswell (2006) qualitative research is an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting. He also stated that the qualitative researcher often goes to the site of the participants to conduct the research. The researcher adopted this method because it was used to go deeper into issue of interest, explore nuances related to the problem at hand and be highly involved in the actual experiences of the participants (Mora, 2010).

The phenomenology methodology under qualitative research method was used. The researcher adopted this type of methodology because it helped the researcher to

explore the in-depth of management of electronic records. This is in line with Laser (1999) who said that phenomenology methodology help researchers to gather deep information and perceptions through inductive and qualitative methods such as interviews, discussions and participant observation, and representing them from the perspective of the research participant(s).

3.2 Population of the Study

Population, according to Mugo (2010), is the total sum of a group of individuals, persons, objects or items from which samples are taken for measurement. Therefore, the population for this study comprised six (6) private radio corporations in Kaduna State, that is, the Nagarta AM, Alheri FM, Liberty FM Freedom FM, Raypower, and Newage Network. A preliminary observation showed that there are six (6) administrative managers from the corporations and five (5) library staff in charge of the electronic records from the corporation libraries making a total number of eleven (11) staff.

However, the subjects of the study were both the library staff in charge of the electronic records and administrative managers of the private radio corporations. The choice of the administrative staff was because they are in the realm of affairs of the private radio corporations while the library staff in charge of the electronic records are the managers overseeing the electronic records of the corporations. Below is a table showing the population of private radio corporations, departments and staff;

Table 3.1: Population of the Staff of Private Radio Corporations in Kaduna State

S/NO	PRIVATE RADIO CORPORATIONS	DEPARTMENT S/ NUMBER OF STAFF		TOTAL NUMBER OF STAFF
		Library Staff	Admin	
1	Alheri FM	1	1	2
2	Freedom FM	1	1	2
3	Liberty FM	1	1	2
4	Nagarta AM	2	1	3
5	Newage Network	1	1	2
6	Raypower	-	1	1
TOTAL		6	6	12

Source- Staff registers in the various private radio corporations

3.3 Sample and Sampling Procedures

The sampling method that was used is the purposive sampling. A purposive sample is a non-representative subset of some larger population, and is constructed to serve a very specific need or purpose. Crossman (2001) said this is used primarily when there are a limited number of people that have expertise in the area being researched. Also, Seigle (2002) asserted that qualitative research uses purposive sampling to select the people they study. In addition, it provides the richness and the in depth of the case description. The private radio corporation libraries are chosen because they have particular features or characteristics which enabled detailed exploration of the management of electronic records. Therefore, the need for in-depth data collection in this study demanded that respondents be purposively sampled. This sampling is a selection of respondents who are knowledgeable in management of electronic records, its policies and the general knowledge of the corporations so as to provide professional answer.

The small number of respondents used in this research is in agreement with Crouch and Mckenzie (2010) who said small number of cases (less than 20) will facilitate the researcher's close association with the respondents and enhance in-depth inquiry in naturalistic setting.

Based on the above, out of six (6) private radio corporation libraries, four (4) private radio corporation libraries as well as nine (9) staff were sampled for this study. Raypower was not sampled because it only transmits directly from the headquarters in Lagos. As such, it serves as a signal station in Kaduna State while Newage Network is only two to three percent into radio broadcasting and as such are not fully into radio broadcasting but television broadcasting in Kaduna State. This makes the Newage Network and the Raypower to have very little or no electronic records.

Table 3.2: Sample of the Staff of Private Radio Corporations in Kaduna State

S/NO	PRIVATE RADIO CORPORATIONS	DEPARTMENTS/ NUMBER OF STAFF		TOTAL NUMBER OF STAFF
		Library Staff	Admin	
1	Alheri FM	1	1	2
2	Freedom FM	1	1	2
3	Liberty FM	1	1	2
4	Nagarta AM	2	1	3
TOTAL		5	4	9

Source- Staff registers in the various radio corporations

3.4 Instruments for Data Collection

The research instruments used for collecting data for the study were interview and observation which were discussed below.

3.4.1 Interview

Two types of interview (structured and unstructured) were designed for this study. While structured interview was designed for the private radio corporation library staff, unstructured interview was prepared for the administrative managers in a way that one question leads to another.

Saliu (2004) noted that the interview technique facilitates research because it allows conversation to flow between the interviewer and the respondents and the consequent emerging reliable and valid information. A face-to-face interview was conducted with respondents to get more in-depth information. The administrative managers were interviewed to expand on the information concerning policy guiding the management of electronic records in the libraries studied. Interview was used to facilitate the exploration of emergent themes and ideas and at the same time enable respondents to be free to choose how to answer the questions they were asked.

A twenty-four (22) item structured questions was constructed for interviewing library staff on the management of electronic records. The interview questions were close-ended. The close-ended questions provided options itemized to help respondents provide relevant answers.

The structured interview was divided into five (5) sections: Section A contained questions on bio-data and work experience of the respondents; Section B contained questions on policies for managing electronic records in private radio corporation libraries; Section C was a question on the types of electronic records in private radio corporation libraries; Section D dwelt on management of electronic records in private radio corporation libraries; and Section E were questions on challenges faced in managing electronic records in private radio corporation libraries.

3.4.2 Observation

The researcher used the observation method as a tool to authenticate the information gathered from interview, examine and assess the presence and absence of the electronic records, the storage media containing the electronic records and prevailing conditions in the private radio corporation libraries.

3.5 Validation and Reliability of Research Instrument

In order to establish the validity of the instrument, copies of the interview questions were given to the research supervisors, staff, research experts and colleagues, in the Department of Library and Information Science, who critically examined and certified them useful for the research. The opinion, criticisms and recommendations of these experts were incorporated into the construction of the final copy of the instrument.

Also, the items in the structured interview were subjected to the test of reliability using the Split-Half method. In this method, a pilot study was carried out using library staff of Cool FM, Abuja. The subjects that participated in the pilot study were two (2) library staff. The reliability coefficient of the instrument was found to be 0.82; this means that the instrument is reliable.

3.6 Procedure for Data Collection.

The researcher solicited for the cooperation of the authorities of the four private radio corporations selected for the administration of the structured and unstructured interview to their respective staff. The researcher personally interviewed the respondents of the corporations studied. However, it took the researcher six (6) weeks to interview the respondents from the private radio corporation libraries.

3.7 Procedure for Data Analysis

The data collected for this research were presented and analyzed using descriptive statistics in order to obtain answers to the data collected. In this regard, frequency distribution tables, simple percentages and charts were used to analyze the data collected.

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CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter deals with the analyses of data generated for the study. Analysis and discussion of findings were also presented. The chapter is presented in the following subheading;

4.1 Response Rate, Analysis and Discussions

Out of the nine (9) respondents from the selected private radio corporation libraries in Kaduna State, 8(88.8%) were interviewed. One of the staff was not interviewed due to the fact that the respondent was sick and undergoing treatment. Table 4.1 and Figure 1 show the response rate distribution of the respondents according to the Private Radio Corporation Libraries.

Table 4.1: Response Rate Distribution of the Respondents According to the Private Radio Corporation Libraries

S/No	Private Radio Corporation Libraries	Total Number of Respondents	Total Number of Respondents Interviewed	Percentage
1	Alheri FM	2	1	11.1
2	Freedom FM	2	2	22.2
3	Liberty FM	2	2	22.2
4	Nagarta FM	3	3	33.3
	Total	9	8	88.8

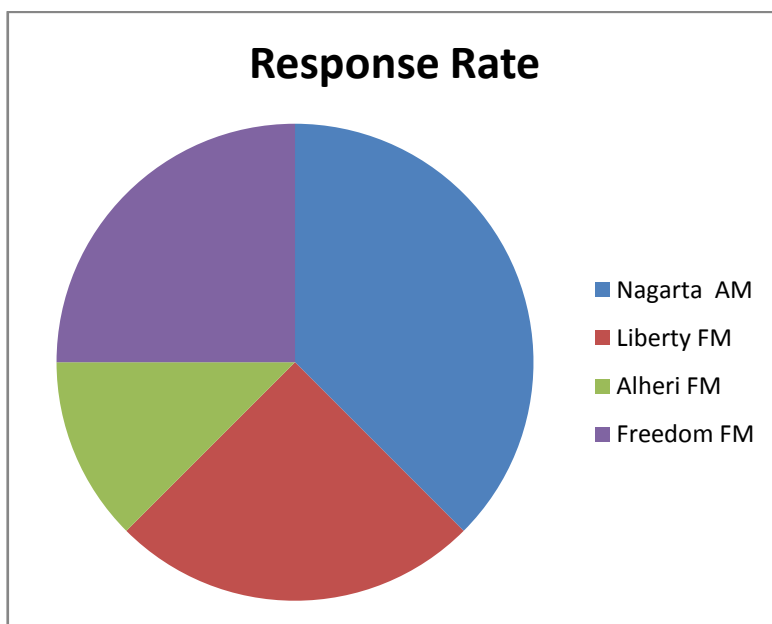


Figure 1: Response Rate

The result shows a high response rate of 8 (88.8%) which was due to the fact that the researcher established a good rapport with the respondents before she personally went round to interview them.

4.2 Data Analysis and Discussion

This section analyzed the data collected with regards to the research questions raised in the study which are analyzed and discussed below.

4.2.1 Policy Guiding Management of Electronic Records in Private Radio

Corporation Libraries in Kaduna State

In this section, the researcher tried to find out if the libraries have written/documented policy guiding the management of electronic records. Table 4.9 below shows the responses of the subjects on the availability of policy for management of electronic records in library studied.

Table 4.2 Policy Guiding Management of Electronic Records in Private Radio Corporation Libraries in Kaduna State

S/NO	Radio Corporation Libraries	YES	NO
1	Nagarta AM	✓	X
2	Liberty FM	✓	X
3	Alheri FM	X	✓
4	Freedom FM	✓	X

Key: ✓ (Available) X (Not Available)

The Table above shows that most of the Private Radio Corporation Libraries studied have written and documented policy. The three libraries that have written and documented policy claimed that the policy is useful to them. However, the researcher further found out during the interview that one of the libraries (Nagarta AM) has not reviewed its policy for management of electronic records since its formulation when the corporation was established in 2005. This could be attributed to reluctant of reviewing the policy on the part of the management. This is against Beagriel (2003) findings that lack of policy on management of electronic records and the inability of organizations to review or modify their policies is a major drawback to the management of electronic records in libraries thereby; affecting the quality of services rendered to users. This implies that without standard and current policy, the corporations do not have a specific guide toward management of their electronic records.

4.2.2 Types of Electronic Records Available in Private Radio Corporation

Libraries in Kaduna State

To identify the type of electronic records available in private radio corporation libraries in Kaduna State, the respondents were asked to list the electronic records

available in their respective Private Radio Corporation Libraries their responses are as contained in Table 4.2.

Table 4.3 Types of Electronic Records Available in Private Radio Corporation Libraries in Kaduna State

S/NO	Type of Electronic Records	Private Radio Corporation Libraries in Kaduna State			
		Nagarta AM Library	Liberty FM Library	Alheri FM Library	Freedom FM Library
1	Electronic Programme	✓	✓	✓	✓
2	Electronic Events	✓	✓	✓	✓
3	Electronic News	X	X	✓	✓
4	Electronic Music	✓	✓	✓	✓
5	Electronic Mail	X	✓	X	X

Key: ✓ (Available) X (Not Available)

The finding revealed that all the Private Radio Corporation Libraries studied have one type of electronic record or the other. Thus Liberty FM, Alheri FM and Freedom FM libraries indicated that they have four (4) each of all the types of electronic records listed to them while Nagarta AM has three of all the types of electronic records listed to them. However, electronic programme, electronic events and electronic music are found to be the most commonly available electronic records in all the libraries. This finding is in line with State of Florida (2010) where media libraries had electronic programme, electronic events and electronic music. Electronic news was found to be available in Alheri FM and Freedom FM Libraries. Whereas, it was discovered that Nagarta AM and Liberty FM Libraries do not have electronic news because the staff said that they were part of electronic records that cannot be reuse more than once and

the records are for immediate use only. The implication of this is that, two of these libraries cannot be regarded as a good reference source for news because news, which is one of the primary components of establishing radio corporation is not available electronically.

4.2.3 Management of Electronic Records in Private Radio Corporation

Libraries in Kaduna State

In this section, the researcher tried to find out how electronic records are managed in Private Radio Corporation Libraries right from the creation through disposition stage. Table 4.3 to Table 4.7 shows the important element of management of electronic records (lifecycle) in the libraries under study.

4.2.3.1 Creation of Electronic Records in Private Radio Corporation

Libraries in Kaduna State

This section tries to identify the kinds of electronic records created, how often they are created, sources of their creation and the creators of these electronic records in the Private Radio Corporation Libraries in Kaduna State. Table 4.3 shows the types of electronic records created in all the libraries.

Table 4.4 Creation of Electronic Records in Private Radio Corporation Libraries in Kaduna State

S/NO	Electronic Records Created	Private Radio Corporation Libraries in Kaduna State			
		Nagarta AM Library	Liberty FM Library	Alheri FM Library	Freedom FM Library
1.	Politics	✓	✓	✓	✓
2	Health	✓	✓	✓	✓
3	Religion	✓	✓	✓	✓
4	Education	✓	✓	✓	✓
5	Agriculture	✓	✓	✓	✓
6	Economic	✓	X	✓	✓
7	Social	✓	✓	✓	✓
8	Culture and Tourism	✓	X	✓	✓
9	Weather	✓	X	X	X
10	Science	✓	✓	✓	✓
11	Musician`s performance (Music)	✓	✓	✓	✓
12	Sports	✓	✓	✓	✓
13	Transport	✓	✓	✓	

Key: ✓ (Created) X (Not Created)

Table 4.3 shows that Nagarta AM Library creates records on politics, health, religion, education, agriculture, economic, social, culture and tourism, weather, science, musician`s performance, sports and transport. This means that all the needs of users of Nagarta AM Library are met at all times. Liberty FM Library collected information on politics, health, religion, education, agriculture, social, science, religion and musician`s performance and leaving out economic, culture and tourism, and weather. In the same vain, Alheri FM Library and Freedom FM Library covered information on politics, health, religion, education, agriculture, economic, social, culture and tourism, science, and musician`s performance and leaving weather untouched. This means that almost all the private radio corporation libraries users will have information in all areas except economic, culture and tourism, and weather. This finding is contrary to what Yusuf and Robert (2008) found out that private radio corporations aired information in all aspects of life; including economic, culture and tourism, and weather forecast. From the

interview held with the respondents of all the libraries, it was found that electronic records were created daily and weekly from interviews, documentation, other radio corporations through exchange programmes and requests, internet and government agencies. These electronic records in most of the libraries studied were created by reporters, producers and presenters. This is against Federal Radio Corporation Nigeria (2008) which opined that libraries are managed by librarians who work as information gate keepers, select credible and authentic information to their users.

4.2.3.2 Organization of Electronic Records in Private Radio Corporation

Libraries in Kaduna State

In this section, the researcher tried to know how the electronic records available in the private radio corporation libraries in Kaduna State were organized for the purpose of easy retrieval by the staff and users. Table 4.4 presents how electronic records are organized in all the libraries under study.

Table 4.5 Organization of Electronic Records in Private Radio Corporation Libraries in Kaduna State

S/NO	Organization of Electronic Records	Private Radio Corporation Libraries in Kaduna State			
		Nagarta AM Library	Liberty FM Library	Alheri FM Library	Freedom FM Library
1	Alphabetical	✓	✓	X	✓
2	Chronological	X	✓	X	✓
3	Numerical	✓	X	X	X
4	Subject	X	X	✓	✓
5	Index	X	X	X	X
6	Alpha-numerical	X	X	X	X

Key: ✓ (Applicable) X (Not applicable)

Table 4.4 reveals that the method of organizing electronic records in Private Radio Corporation Libraries in Kaduna State varies. Nagarta AM Library organized its electronic records alphabetically and numerically, Liberty FM Library organized its

own alphabetically and chronologically, Alheri FM Library organized the electronic records by subject only and Freedom FM organized its electronic records alphabetically, chronologically and by subject. The finding indicated the absence of a uniform method of organizing electronic records available in Private Radio Corporation Libraries in Kaduna State. However, it can also be seen from the Table that two of the libraries do not use subject method to organize their electronic records and all the libraries do not use indexing method to organize their electronic records. This finding is against Texas State Government (2011) which arranged their electronic records by subject, numerically, alphabetically, alpha-numerically, chronologically and indexing. The implication is that they have not employed professionals to manage their electronic records. This implies that the staff in charge of the electronic records organized the electronic records according to the existing practice as against the standard practice.

4.2.3.3 Use of Electronic Records in Private Radio Corporation

Libraries in Kaduna State

This section tried to find out how frequently the electronic records in all the libraries are used, the users of these electronic records and what they are used for. Table 4.5 shows the responses of the respondents on the frequency of use of electronic records in the libraries under study.

Table 4.6 Use of Electronic Records in Private Radio Corporation Libraries in Kaduna

S/ N O	Use of Electroni c Records	Private Radio Corporation Libraries in Kaduna State															
		Nagarta AM Library				Liberty FM Library				Alheri FM Library				Freedom FM Library			
		VF	F	U	NF	VF	F	U	NF	VF	F	U	NF	VF	F	U	NF
1	Electronic Programm e	√	X	X	X	√	X	X	X	√	X	X	X	√	X	X	X
2	Electronic Event	X	√	X	X	X	√	X	X	X	√	X	X	X	√	X	X
3	Electronic News	X	X	X	X	X	X	X	X	√	X	X	X	√	X	X	X
4	Electronic Music	√	X	X	X	√	X	X	X	√	X	X	X	√	X	X	X
5	Electronic Mail	X	X	X	X	X	X	X	√	X	X	X	X	X	X	X	X
6	Electronic Statistic	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Key: VF (Very Frequent), F (Frequent), U (Undecided), NF (Not Frequent)

Table 4.5 shows that electronic programme and electronic music are the most frequently used electronic records in all the libraries under studied, followed by electronic news which is consulted very frequently in Alheri FM Library and Freedom FM Library. This means that the electronic records are consulted almost daily by the libraries users. The findings also revealed that the users of Nagarta AM and Liberty FM libraries are not fully informed since there is no electronic news in their libraries. Electronic events are the next frequently used electronic records in all the libraries, because they are consulted once or twice in a week or month. This is so because these types of electronic records are more of history. This is in line with State of Florida (2010) opinion which stated that for any records to be active, it must be use frequently (at least once a month). And electronic mails and electronic statistic are the least used electronic records because most of the information is of less importance to users.

Further interview reviewed that most of the users that patronize private radio corporation libraries in Kaduna State are journalists, producers and researchers. This is supported by Anthony (2004) in Rick (2005) who opined that users of electronic records in radio corporation libraries include government representatives requiring information about government activities, professional or academic researchers from a wide range of disciplines, journalists, amateur researchers, and members of the public, others wishing to have some contact with the primary sources of their national culture and tradition and foreigners from other countries. The researcher also found out that the electronic records are used for decision making, for entertainment, documentation or reference, production, in answering inquiries or in satisfying legal requirements.

4.2.3.4 Storage of Electronic Records in Private Radio Corporation

Libraries in Kaduna State

This section tried to identify the storage media used for storing electronic records in Private Radio Corporation Libraries in Kaduna State. Table 4.6 shows the available electronic media in all the libraries.

Table 4.7 Storage of Electronic Records in Private Radio Corporation Libraries in Kaduna State

S/NO	Storage Media	Private Radio Corporation Libraries in Kaduna State			
		Nagarta AM Library	Liberty FM Library	Alheri FM Library	Freedom FM Library
1	Hard disc	X	✓	✓	✓
2	VCD	✓	X	✓	✓
3	DVD	X	X	✓	X
4	CD-ROM	✓	✓	X	✓
5	Flash drive	✓	✓	X	✓
6	Server (harddrive)	X	✓	X	X
7	Tapes	✓	✓	✓	✓
8	Optical cards	X	X	X	X

Key: ✓ (Applicable) X (Not applicable)

From Table 4.6, it can be seen that tapes were the most common storage media in all the libraries studied. This is because tape is very easy to use and last longer if handled with care. Hard disc, VCD, CD-ROM and flash drive are the second used storage media by most of libraries while DVD and server (hard drive) are the least used storage media by most of the libraries. And optical cards are not used by any of the libraries to store electronic records, because according to the libraries staff, optical cards are not in use and contain less information compared to other storage media. This means that most of the libraries have been using physical storage facilities such as VCD, DVD, CD-ROM, flash drive and tapes as their major storage media to store their electronic records. This implies that in the event of unforeseen disaster, such records could be destroyed.

4.2.3.5 Maintenance of Electronic Records in Private Radio Corporation

Libraries in Kaduna State

In this section, the researcher tried to find out the care and precautionary measures the libraries studied had taken to avoid alteration and loss of electronic records, damage to storage media containing the electronic records, and also to make the available electronic records accessible when they are needed. Table 4.7 shows the responses of the subjects on the maintenance of electronic records in the libraries.

Table 4.8 Maintenance of Electronic Records in Private Radio Corporation Libraries in Kaduna State

S/NO	Maintenance of Electronic Records	Private Radio Corporation Libraries in Kaduna State			
		Nagarta AM Library	Liberty FM Library	Alheri FM Library	Freedom FM Library
1	Provision of back-up system to safeguard the electronic records	✓	✓	✓	✓
2	Use of cryptography	X	✓	X	✓
3	Protection for storage media containing electronic records from disaster	✓	X	X	X
4	Protection against unauthorized access, alteration or disposal of electronic records	✓	X	X	✓
5	Installation of antivirus	✓	✓	✓	✓
6	Installation of fire extinguisher	✓	X	✓	✓
7	Provision of air conditioners	✓	X	✓	✓
8	Staff being held responsible for loss or damage of electronic records in their care.	✓	X	X	✓
9	Training of staff and users that use electronic records	✓	X	X	X

Key: ✓ (Applicable) X (Not applicable)

Table 4.7 reveals that Nagarta AM Library and Freedom FM Library provided the highest care and precaution in maintaining their electronic records, the storage media containing the electronic records and their environment while Liberty FM Library provided the least care and precaution in maintaining their electronic records, the storage media containing the electronic records and their environment. This is because Liberty FM Library believes that since their electronic records are stored in the server (hard drive) as their back-up system, other measures outside the use of cryptography and installations of antivirus are not really necessary. Therefore, it can be said that the major storage media in all the libraries are in a physical forms. And since the major storage media are in physical forms, it is noted from the table 4.7 that most of the libraries do not provide protection for disaster which is the major enemy to the storage media storing the electronic records. Therefore, any damage from this unwanted guest could lead to total destruction of the corporations.

4.2.3.6 Disposition of Electronic Records in Private Radio Corporation

Libraries in Kaduna State

This section shows what happened to electronic records in the Private Radio Corporation Libraries in Kaduna State when they are no longer needed for immediate use. Table 4.8 shows how the electronic records are disposed.

Table 4.9 Disposition of Electronic Records in Private Radio Corporation Libraries in Kaduna State

S/NO	Disposition of Electronic Records	Private Radio Corporation Libraries in Kaduna State			
		Nagarta AM Library	Liberty FM Library	Alheri FM Library	Freedom FM Library
1	Destroy the records	✓	✓	X	✓
2	Delete the records	✓	X	✓	✓
3	Archive the records	✓	✓	✓	✓
4	Exchange the records	X	X	X	X
5	Recycle the records	X	X	✓	X

Key: ✓ (Applicable) X (Not applicable)

From Table 4.8, it can be seen that all the libraries studied archived their vital electronic records for future use. But since their electronic records are not organized based on subject and index, it means that the electronic records cannot be traced or referred to easily in the future. This implies that the electronic records have not been properly disposed. It was also noted that Nagarta AM Library, Liberty FM Library and Freedom FM Library destroyed electronic records not worth revisiting (entertainment, advert and storytelling) and corrupted records while Nagarta AM Library, Alheri FM Library and Freedom FM Library delete electronic records almost immediately after their use because of space and are inactive and as such have no value. This finding tallies with James (2012), who asserted that the objective of records destruction is to remove the record permanently from possible use after it has become obsolete and inactive. At the disposition and retention phase, when records decline in value and retrieved records are no longer needed for immediate use, records become inactive, and are then removed from active storage in office space, destroyed, or transferred to an

inactive storage facility or building outside the library for the duration of their retention life. This helps to prevent records from the attack of any form of disaster. Most of the private radio corporation libraries were also found not to transfer their inactive electronic records to buildings outside the library. Only Alheri FM Library was found to recycle their electronic records and none of the libraries exchanged their electronic records because all the libraries do not see need for that.

4.2.4 Challenges of Management of Electronic Records in Private Radio

Corporation Libraries in Kaduna State

In this section, the researcher tried to find out the challenges Private Radio Corporation Libraries in Kaduna State face in managing their electronic records. Table 4.10 shows the challenges of management of electronic records in the libraries studied.

Table 4.10 Challenges of Management of Electronic Records in Private Radio Corporation Libraries in Kaduna State

S/NO	Challenges of Electronic Records	Private Radio Corporation Libraries in Kaduna State			
		Nagarta AM Library	Liberty FM Library	Alheri FM Library	Freedom FM Library
1	Technology obsolescence	✓	✓	✓	✓
2	Technological dependence	X	X	X	✓
3	Storage medium deterioration	✓	X	✓	✓
4	Inadequate trained electronic record managers	✓	✓	✓	✓
5	Lack of policy on management of electronic records	X	X	✓	X
6	Disaster occurrence	✓	X	X	X
7	Space problem	X	X	X	X
8	Conducive environment	X	X	X	X
9	Security	X	X	X	X

Key: ✓ (Applicable) X (Not applicable)

Looking at Table 4.10, technology obsolescence and inadequate trained electronic record managers are found to be the major challenges common to the libraries. This is contrary to the findings of Anne and Adrian (2000) where conservation, preservation, security and protection, space problem and conducive environment were noted to be the major challenges threatening electronic records in most libraries. Only Liberty FM Library experienced storage media deterioration. Lack of electronic records management policy and disaster occurrence were experienced in Alheri FM Library and Nagarta AM Library respectively. This is because Alheri FM Library was reluctant to develop a policy towards effective management of electronic records in its library and Nagarta AM Library did not prepare against the occurred disaster. Also, Freedom FM Library was the only library that experienced technology dependence.

In further interview between the researcher and the respondents, the researcher gathered that one (Nagarta AM Library) among the three libraries that have policy has not updated its policy since formation. This implies that, without adequate policy update, the libraries might not be able to move with the present technological trend thereby affecting the quality of services provided to their users.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter deals with the summary of the study, findings, conclusion and recommendations for improvement of management of electronic records in the libraries.

5.1 Summary of the Study

The study investigated the of management electronic records in private radio corporation libraries in Kaduna State. It tried to find out if there are policies adopted for management of electronic records in Private Radio Corporation Libraries in Kaduna State; the types of electronic records available in these libraries; how the electronic records are managed; and the challenges the libraries faced in managing their electronic records. In order to achieve the above objectives, the study raised four (4) research questions viz: Are there policies adopted for management of electronic records in Private Radio Corporation Libraries in Kaduna State? ; What types of electronic records are available in Private Radio Corporation Libraries in Kaduna State? ; How are the electronic records in Private Radio Corporation Libraries in Kaduna State managed? ; What are the challenges of managing electronic records in Private Radio Corporation Libraries in Kaduna State? Phenomenology methodology under qualitative research method approach was used. The population of the study comprised six (6) library staff and six(6) top administrative staff; one from each of the six (6) private radio corporations in Kaduna State, bringing to a total of twelve (12) staff of all private radio corporations. Purposive sampling method was used. Four Private Radio Corporation Libraries were sampled along with nine (9) staff as the sample size. Interview and

observations were the instruments used to collect data for the study. And descriptive statistical tools such as simple percentages, tables and charts were used to analyze the data.

5.2 Summary of the Findings

A. The findings also revealed that though all the libraries studied have one type of electronic records or the other, three (3) of the libraries have written policy on management of electronic records. Despite the existence of electronic records management policy in three of the libraries, it was discovered that one of them (Nagarta AM) has not reviewed its policy since its formulation in 2005. The absence and lack of updated or modified policy in Alheri FM could be attributed to reluctant of developing policy for the effective management of electronic records.

B. From the analysis of the data collected for the study, it was found that majority of the respondents attested to the fact that electronic programme, electronic events and electronic music are the most common types of electronic records found in the private radio corporation libraries in Kaduna.

C. The findings also revealed that all the libraries studied managed their electronic records based on the lifecycle of records management such as creation, organization, use, storage/maintenance and disposition.

- As such politics, health, religion, education, agriculture, social, science, musician performance, sports and transport are the common kinds of electronic records created in private radio corporation libraries in Kaduna.
- Alphabetical method is the most common way of organizing electronic records among the private radio corporation libraries in Kaduna.

- Electronic programme and electronic music are the most frequently used electronic records in all the libraries under studied.
- VCD, DVD, CD-ROM, flash drive and tapes are the major storage media of electronic records in all libraries.
- Provision of back-up system to safeguard the electronic records and installation of antivirus are the common ways of maintaining electronic records and the storage media containing the electronic records.
- Archiving electronic records is the most common way of disposing records in all the libraries under studied.

D. The findings also showed that the private radio corporation libraries face technology obsolesces and inadequate trained electronic record managers as the major challenges common to the libraries.

5.3 Conclusion

From the summary of the major findings of this study, it can be concluded that:

- A. Three (3) of the libraries (Nagarta AM, Liberty FM and Freedom FM) have written policy on management of electronic records and one (1) of the library (Alheri FM) has no written policy on management of electronic records.
- B. Private radio corporation libraries in Kaduna State manage their electronic records based on the same management of electronic records process but with variations in the method of creation, organization, use, storage/maintenance and disposal of electronic records.
- C. Technology obsolescence, technology dependence, storage medium deterioration, inadequate trained electronic record manager and lack of policy on

management of electronic records were the challenges that faced by private radio corporation libraries in Kaduna State in the management of their electronic records.

5.4 Recommendations

- A. The private radio corporation libraries should review policy on management of electronic records which would serve as a guiding principle for effective electronic records management. The policy should be reviewed at least every two (2) years in order to meet the current trends.
- B. The private radio corporation libraries should take other types of electronic record like the electronic news and electronic mails serious and record them as they do to others and make them (especially electronic news) available for users whenever they need them because news which keep people informed, is one of the primary components of establishing radio corporation. And at the same time, store them for future and reference purposes.
- C. Since all the private radio corporation libraries manage their electronic records based on the same lifecycle involve in the management of electronic records, it is therefore recommended that:
 - Liberty FM Library should create records electronically on economic, weather, culture and tourism so that their users needs would be met in all areas and at all times. Just like Liberty FM Library, Alheri FM Library and Freedom FM Library should also have the electronic version for weather as this would help them meet the needs of their users. This will thereby, enable the corporation libraries to fulfill the purpose of their establishment.

- Since all the private radio corporation libraries are in the same plat form, and Nagarta AM Library, Liberty FM Library and Freedom FM Library used alphabetical method as their major method of organizing their electronic records, Alheri FM Library should also add this method of organization of electronic records to its existing one and if possible, make it the major means of organization of electronic records because according to the other libraries, it is easier to use.
 - Nagarta AM Library and Liberty FM Library should create and store electronic records on news so that their users have access to them when ever they need them. Because of its importance in the society, it would be part of the frequent used electronic records.
 - It is also recommended that that all the libraries should be involved in off side storage. Nagarta AM Library Alheri FM Library and Freedom FM Library should also be involved in on-line storage in order to be able to have what they can fall back to in case of unforeseen disaster within the libraries.
 - All the libraries, especially the Liberty FM Library should be careful in maintaining the electronic records, storage media containing electronic records and providing conducive environment for storage media containing electronic records in order to avoid loss of information.
 - All electronic records especially the important and confidential ones should be disposed according to the available policy so that there will be no confusion of what was disposed.
- D. The corporations should endeavour to move with the technological trend, as this will help to eliminate the challenges they faced in managing electronic records

in their different libraries especially the issue of technology obsolesce and they should encourage their staff to do off site storage.

5.5 Suggestion for Further Studies

This study focused on management of electronic records in private radio corporation libraries in Kaduna State. There is need to replicate this study in government owned radio corporations in the Kaduna State towards improving the management of electronic records.

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Appendix 1

Library and Information Science Department,
Ahmadu Bello University, Zaria

MANAGEMENT OF ELECTRONIC RECORDS IN PRIVATE RADIO CORPORATION LIBRARIES IN KADUNA STATE.

Dear Sir/Madam

I am a Post Graduate Student of Library and Information Science Department, Ahmadu Bello University, Zaria undertaking a research in partial fulfilment of the requirement for the MLS Programme. I will appreciate your response in the supply of information relating to the above subject matter by providing adequate responses to the information. The information provided shall be treated in confidence and used strictly for the purpose of the research.

Yours Sincerely

Roseline Oyewumi

08027273832

Appendix 2

INTERVIEW ON MANAGEMENT OF ELECTRONIC RECORDS IN PRIVATE RADIO CORPORATION LIBRARIES IN KADUNA STATE

SECTION A. DEMOGRAPHIC DATA

INSTRUCTION- Please tick (✓) the most appropriate answer to the following questions.

1. Name of radio corporation

- | | | | |
|---------------|-----|---------------|-----|
| a. Nagarta AM | [] | c. Freedom FM | [] |
| b. Alheri FM | [] | d. Liberty FM | [] |

2. What is your highest qualification?

- | | | | |
|---------|-----|---------------------------------|-----|
| a. SSCE | [] | h. BA | [] |
| b. GCE | [] | i. BLS | [] |
| c. TCII | [] | j. MSc | [] |
| d. OND | [] | k. MA | [] |
| e. NCE | [] | l. MLS | [] |
| f. HND | [] | m. Ph.D | [] |
| g. B.Sc | [] | n. Others (Please specify)..... | |

3. How long have you been involved in the management of electronic records in your library?

- | | |
|-----------------------|-----|
| a. 1-5 years | [] |
| b. 5-10 year | [] |
| c. 10-15 years | [] |
| d. 15-20 years | [] |
| e. 20 years and above | [] |

SECTION B. POLICY GUIDING MANAGEMENT OF ELECTRONIC RECORDS

4. Does your library have policy governing electronic records? Yes or No

5. If yes, when was the policy updated or modified?

- | | |
|---------------------------------|-----|
| a. 1-11 months ago | [] |
| b. 1-2 years ago | [] |
| c. 3-4 years ago | [] |
| d. 5-6 years ago | [] |
| e. Others (Please specify)..... | |

6. How useful is the policy to the management of electronic records in your library?

- | | |
|------------------|-----|
| a. Very useful | [] |
| b. Useful | [] |
| c. Fairly useful | [] |
| d. Not useful | |

SECTION C. TYPES OF ELECTRONIC RECORDS

Instruction: Please tick (√) as many as possible.

7. Which of the following types of electronic records are available in your library?

- a. Electronic Programs []
- b. Electronic Events []
- c. Electronic News []
- d. Electronic Music []
- e. Electronic Mails []
- f. Electronic Statistic []
- Others (please specify)

SECTION D. MANAGEMENT OF ELECTRONIC RECORDS

Creation of Electronic Records

8. What kinds of electronic records are created in your library?

- a. Politics []
- b. Health []
- c. Religion []
- d. Education []
- e. Agriculture []
- f. Economic []
- g. Social []
- h. Cultural []
- i. Statistic []
- j. Weather []
- k. Musician Performance []
- l. Others (please specify)

9. How often are these kinds of electronic records created in your library?

Electronic Records created/generated	Daily	Weekly	Monthly	Bi-Annually	Annually
Politics					
Health					
Education					
Agriculture					
Economic					
Social					
Culture and tourism					
Statistic					
Weather					
Musicians performance					
Sport					
Transport					
Others					

10. Who create these electronic records in your library?

- a. Reporters []
- b. Producers []
- c. Presenters []
- d. Interviewers []
- e. Librarians []
- f. Others (please specify)

11. Through what sources are these electronic records created in your library?

- a. Interview
- b. Other radio corporations
- c. Friends of the corporations
- d. Anonymous Source
- e. Documentation
- f. Staff of the corporation
- g. Internet
- f. Others (please specify)

Organization of Electronic Records

12. How does your library organize electronic records?

- a. Alphabetical
- b. Chronological
- c. Numerical
- d. Subject
- e. Index
- f. Alpha-numerical
- d. Others (please specify)

Use of Electronic Records

13. How frequent do you use the following electronic records used in your library?

Types of Electronic Records	Very frequent	Frequent	Undecided	Rarely Frequent	Not Frequent
Electronic Programs					
Electronic Event					
Electronic News					
Electronic Music					
Electronic Mails					
Electronic Statistic					
Others					

14. Who uses the available electronic records in your library?

- a. Journalist
- b. Government Officials
- c. Researchers
- d. Academicians
- e. Students
- f. Others (Please specify).....

15. For what purpose are the electronic records used in your library?

- a. Study

- b. Research []
- c. Entertainment []
- e. Programme Production []
- f. Decision Making []
- g. Planning []
- h. Marketing []
- g. Others (Please specify).....

Storage and Maintenance of Electronic Records

16. Which of these electronic media is use in storing electronic records in your library?

- a. Hard Disc []
- b. VCD []
- c. DVD []
- d. CD-Rom []
- e. Flash Drive []
- f. VCD/DVD []
- g. Internet []
- h. Tapes []
- i. Optical cards []
- j. Server (hard Drive) []
- k. Multimedia []
- l. Fax []
- m. Others (Please specify).....

17. How do you ensure safety of the electronic records and storage media containing electronic records in your library?
- a. Provision of back-up system to safeguard the electronic records []
 - b. Use of cryptography []
 - c. Protection for storage media containing electronic records from disaster []
 - d. Protection against unauthorized access, alteration or disposal of electronic records. []
 - e. Installation of antivirus []
 - f. Installation of fire extinguisher []
 - g. Provision of air conditioners []
 - h. Staff being held responsible for loss or damage of electronic records in their care []
 - i. Training of staff and users that use electronic records []
 - j. Others (Please specify).....

Disposal of Electronic Records

18. How do you deals with electronic records which are not being used or required in your library?
- a. Destroy the records []
 - b. Delete the records []
 - c. Archive the records []
 - d. Exchange the records []
 - e. Recycle the records []
 - f. Others (Please specify).....

19. What guides you in determining which electronic records need to be disposed in your library?
- a. Records not worth revisiting []
 - b. Records that are corrupted []
 - c. Records that cannot be reuse more than once and the information is for immediate use only. []
 - d. Others (Please specify).....

20. Where do you transfer the electronic records to be use for the future in your library to?
- a. Store in the library []
 - b. Archive in the library []
 - c. Building outside the library []
 - d. Database or Website []
 - e. Others (Please specify).....

Managers of Electronic Records

21. Who is responsible for the management of electronic records in your library?
- a. Librarians []
 - b. Archivists []
 - c. ICT Officers []
 - e. Others (Please specify).....

SECTION E. CHALLENGES OF ELECTRONIC RECORDS

22. Which of the challenges do you encounter in the management of electronic records in your library?

- a. Technology obsolescence []
- b. Technological Dependence []
- c. Storage medium deterioration []
- d. Inadequate trained electronic record managers []
- e. Lack of policy on management of electronic records []
- f. Disaster occurrence []
- g. Space problem []
- h. Conducive environment []
- i. Security []
- j. Others (Please specify).....