



INTERNATIONAL JOURNAL OF APPLIED TECHNOLOGIES IN LIBRARY AND INFORMATION MANAGEMENT

<http://www.jatlim.org>

International Journal of Applied Technologies in Library and Information Management 3 (2) 14 - 106 - 121

ISSN: (online) 2467 - 8120

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Manuscript Number: JALIM - 2017-03.02/45-53

Management of Electronic Records Generated/Received by Federal Universities in Nigeria

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Abstract

The development in Information and Communication Technologies (ICTs) and the need for transforming the university system has necessitate the use of ICTs by universities globally in the process of generation and management of their records. Thus, Nigerian universities are no exception. Electronic records are records that appear in electronic format. As a result, the requisite and available electronic records need to be organised, managed, handled and nurtured effectively in the universities, for their easy accessibility and timely use. The purpose of this study is to examine how federal universities in Nigeria managed their e-records for proper utilization. Also, the study sought to find out the management procedure used in managing e-records in terms of the following indicators: policy and guidelines, e-records appraisal, e-records organisation and e-records retention and disposition. Therefore, questionnaire was used as instrument for collecting data for the study. The findings of the study would hopefully provide uniformity and standards among federal universities in Nigeria and also hopefully expose them to best practices of electronic records management in this information age.

Keywords: *Records management, Electronic records, ICTs, Federal universities, Nigeria*

1.1 Introduction

In recent years, the proportion of information on electronic media is increasing exponentially and modern technology is rapidly changing the way governments, institutions, organizations, and individuals conduct their businesses and thus altering the nature of records and archives being created or received. In Nigerian universities, the situation is the same. With the increasing use

of computers and other information and communication technology (ICT) infrastructures and the ongoing office automation and digitization projects, electronic records are being generated and received. Wamukoya (1999) envisaged this trend and new environment for archives and records managers when he wrote that the advent of new technologies, their growing adoption and use in organizations is rapidly

changing the way organizations work, the way they make decisions, communicate, and document their activities.

The term record comes from the Latin word '*recordari*' which means recalling or to remember or bring back to mind and this is exactly what records do (Pember and Cowan, 2010). Records are generally the accounts of facts, events and issues created and stored in any physical form as an authentic evidence for reference. The International Council on Archives (ICA, 2012) defined a record as recorded information produced or received in the initiation, conduct or completion of an institutional or individual activity and that comprises content, context and structure sufficient to provide evidence of activity. On the other hand, ISO standard 15489: 2001 defines Records Management (RM) as the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records. Electronic records are information generated electronically and stored by means of computer technology. They are fragile in nature due to change in the hardware and software used for their creation, storage, processing and use, making them prone to high risks. If damaged or deteriorated, restoration is a difficult task, if not impossible. Electronic records have a short life expectancy dependent on the average service life of the hardware and software required to read and process them.

However, the records of an organization, such as the university system, constitute her corporate memory and serve as guides for planning and decision making. Thus, in order to take advantage of past experiences, accurate records and good records keeping should form the bedrock of planning for the future in the university

system. Universities are service oriented institutions offering a variety of services, which include: research, teaching and community service. Moreover, they are increasingly becoming part of the digital world. As a result, e-records are becoming a reality because of the use of computers to generate information by different units, departments and administrative offices in the universities. This has, in turn, led to records created, used, maintained and disposed of electronically. E-records have enabled universities to keep track of their events and activities.

Federal Universities in Nigeria are expected to manage their records according to international best practice for e-records management. To achieve that, e-records should be managed according to e-records management principles. In this regard, universities should identify all the e-records generated or received in the course of their day to day activities. Secondly, the identified records need to be appraised to determine their informational, historical, cultural, educational, economic and the political value of those records. The universities should also develop policies and guidelines on records appraisal, retention and disposition. Moreover, records management principles stipulate that policies should be developed for e-records storage and preservation to effectively manage e-records (IRMT, 2012). As earlier stated, active records management programmes are required to successfully ensure the records long term preservation, as well as their authenticity. Another basic requirement for effective e-record management is the ICT facilities that are used in the management of e-records.

Universities are expected to provide adequate and up-to date ICT facilities to effectively manage their records. Having required ICT facilities in records department, the next major task is the skilled manpower to use the facilities to effectively manage the e-

records. The staff managing e-records require sufficient IT skills and training on e-records to be relevant in their work place. Therefore, for Federal Universities in Nigeria to effectively manage their e-records, they require adequate funds to acquire all the necessary facilities and employ skilled manpower to manage e-records. In the same vein, Ugwunze (2002) observed that management of e-records in Universities is a new development in Nigeria. There is a need to create awareness of the importance of e- records management in the universities. A lot of files are multiplied in numbers without control over their creation. Problems of storage and the retrieval of information on records/ files continue to increase because there was no standard organization and retrieval system in place. Most of these records are vital in the sense that they are referred to frequently for the smooth running of every department in the university. The e-records created in the universities are likely to pose serious challenges if not well organized A well organized records management policy provides guidance on the implementation of records management process in an organization.

The advancement on the use of ICT facilities in Universities, resulted in the generation of e-records a cross examination of studies conducted by Kemoni and Wamakoya (2000), Ugwunze (2002), Iwhiwu (2010) revealed that e- records in universities in Africa are not adequately managed. However, the studies revealed that e-records management activities are not given the attention it deserves in the Universities in Nigeria. Majority of the Universities have no records department, no records policy and ICT facilities to manage e-records effectively. Despite the enormous benefit associated with effective management of e-records in the University system, these records are not adequately managed. It is in view of this gap that the present study tried to find out how e-records are managed in Nigerian Universities

and proffer some recommendations that may assist in overcoming the challenges. The specific objectives of the study were to identify the types of e-records created; to find out the management procedure used in managing e-records, establish the level of professional training among records personnel and the extent to which staff are conversant with managing electronic records, to also examine the state of e-records management in Nigerian Universities and to reveal the factors preventing their effective management of e-records and to discover how efficient and effective e-records management process can be established in the Nigerian University system.

1.2 Objectives of the Study

The study is designed to answer the following objectives:

1. What types of electronic records are generated /received by Federal Universities in Nigeria?
2. What are the Management Procedures used to Manage e-records in the Universities in terms of:
 - a. Policies on e-records
 - b. Appraisal of e-records
 - c. Organisation of e-records
 - d. Retention and disposal of e-records
3. What types of ICT facilities are used for managing e-records in the Universities under study?

2.1 Review of Related Literature

In his own definition, Saffady (2014) sees electronic records as informational or data files that are created and stored in digitized form through the use of computers and application software. They are stored on various magnetic and optical storage devices and are products of computer software. The format of an electronic document does not change the fact that it is a record, but its electronic form and its dependence on

machines for creation and reference do change the way these records must be stored and managed.

According to the National Archives of Australia Digital Recordkeeping Guidelines (2004), digital records include word-processed documents, spreadsheets, multimedia presentations, email, websites and online transactions. Electronic records can be found in many systems throughout the organization-including databases and business information systems, shared folders and hard drives. According to the Victorian Electronic Records Strategy (VERS) (2002), electronic records are evidence of organizational activities and are generally the computerized versions of traditional paper records. Sources of electronic records range from desktop publications, such as Word, Excel, access and email, to corporate applications, such as financial systems, human resource systems and corporate databases. An electronic record can take many forms. Common electronic records include wordprocessed documents, databases, spreadsheets, presentations, audio and video files, program data and calendar entries. Electronic communications, including e-mail and e-mail attachments, text messages, instant message transcripts and recorded voice mail messages, may also constitute electronic records (VERS, 2002). Therefore, these and other types of electronically stored information should be identified and addressed by the records management policies and practices of universities. Also, electronic records can be located on a wide variety of media and in any number of places. Federal Universities in Nigeria, in the course of their day-to-day activities, do generate and manage records electronically. Some of the e-records generated/received and managed by the universities are as follows:

- Student academic records
- Post graduate application records

- Post UTME registration records
- Direct entry screening records
- Student transcript records
- Students Result records
- Student reports
- Payroll records
- Personnel records
- Hostel allocation records
- Project management records
- Health information records
- University Security records
- University committees reports
- Management Meetings records
- Weekly Bulletins Records

While many universities records may be located on network servers and shared computer systems, others might be presented on individual computer hard drives, on offsite computers owned by employees or the University's agents, contractors or vendors or on portable media, including DVDs, CDROMs or thumb drives. Also, universities may retain copies of some or all of their records on back-up media for disaster recovery purposes. Identifying and controlling where electronic records are located is an important step in controlling how these records are managed. A collection of e-records is often generally referred to as a file. Examples include disk files, tape files and image files. The files are described as follows.

Text files: Text files are usually produced by word processing programs or by many other software. The records consist of character-coded letters, digit or symbols appearing in typewritten document, such as correspondence and reports. Text files are most often created by keyboard entry of the data, but optical character recognition (OCR) programs, electronic messaging software and various other types of computer programs may also be used to create them (Sejane, 2004).

Data Files: Data files are computer processable files that store numeric data (and

frequently some textual information as well), so that the numbers can be manipulated using arithmetic computations. Data files are stored simply as characters in a more structured manner. These e-records are normally subdivided into one or more data elements referred to as fields. For example, in accounting or general ledger files, separate fields and sub fields would be dedicated for credits and debits (Sejane, 2004).

Image Files: Image files are e-records that contain computer-processible images of documents that generally existed in hard copy format prior to having been converted to image files. These files consist of digitally coded document images; they are created electronically by scanning the hard copy documents or by various other methods.

2.2 Management Procedures Used in Managing E-Records

Electronic records management is a coordinated activity that requires the achievement of many factors after the creation of records, sometimes even before the records are created. The management processes that records pass through from creation to permanent preservation or to its ultimate disposition includes: records appraisal, the classification and organisation of records, the accessibility of records, records retention and disposal, storage method and the format of records and records preservation. The successful implementation and execution of these variables facilitate the effective records management process in any organization.

The following procedures are considerable:

i. Policies on E-Records Management

A records management policy is the foundation of the effective management of records in an organization. It demonstrates to staff and the management that managing records is important to the organization. It also provides a statement of intentions that underpins a records management programme.

Furthermore it serves as a mandate for the activities of the records manager and also provides a framework for supporting documents, such as procedures, business rules, disposal schedules, etc. Policies, however, give organizations both public and private the strategic directions it requires to initiate measures, which are necessary for the creation, management and protection of organization records. Dearstyne (2014) further explained that policies assist archival institutions to understand the physical needs of records and to meet, or extend, nationally and internationally agreed standards for the preservation of records and archival materials.

Universities in Nigeria are expected to develop a policy framework on the management of e-records in line with the National policy on e-records management. Literature search indicated that there was no national policy on the management of e-records in Nigeria. Such policies if available might contain explanations of how best to create e-records, appraise, organise and preserve e-records. The policy will also explain how to manage databases, data files directories, and use e-records efficiently. However, a good policy should cover all records, whatever technology used to create and store them. It should also include business systems as well as traditional correspondence files and emails. The policy should also cover records throughout their life, from planning and creation through to disposal. It should include records wherever they are and should also cover records managed on behalf of the organisation by an external body, such as a contractor.

ii. Electronic Records Appraisal

Electronic records appraisal is an assessment of the worth or quality of records. Records appraisal can include the policies and procedures used by a records manager or an archivist to identify and authenticate records

in all formats, which have transient or enduring value to record creators, institutions, researchers and society. The appraisal process includes determining the value and eventual disposition of records. Should the records be destroyed immediately? Should they be retained? How long should they be retained? Should they be transferred to an archive? These are some the questions a records manager thinks about when he wants to appraise a record. Some records are appraised once in their life time. However, the values of records often change and, therefore, they need to be appraised more than once throughout their lifetimes. An appraisal process that was carried out successfully helps the organisation in saving its valuable records and dispose of unnecessary records saving time and space. Therefore, Universities in Nigeria need to develop a common framework or policy for e-record appraisal, hence, the Universities have same objective and also generate virtually same types of records.

E-records managers in Nigerian Universities who are responsible for the appraisal of e-records should take these processes into consideration when appraising their e-records of archival value. The presence of policy in this regard will assist in no measure in coming up with good appraisal and uniformity in appraisal processes across the Universities. However, appraisal officers are expected to be documenting all decisions and actions to ensure the organisation remains answerable for its actions and to guarantee that detailed information is available about all the work performed. Documentation provides audit trails for important decisions as well, future records professionals may need to revisit appraisal decisions. Documentation is essential to reconstruct the reasoning and logic used in making disposal decisions (IRMT 2009). The documentation of appraisal and disposal actions can also be

valuable for other purposes, such as the creation of archival descriptions and finding aids, and the development or revisions of records classification schemes. Documentation also provides the analysis and information related to the authenticity and preservation of electronic records that may be critical for their long-term care.

iii. E-Records Organisation

An effective e-records management process cannot be achieved without the proper organisation of e-records in an electronic records management system shared drive. E-records are organised by way of classifying, controlling and organising them to ease identification, storage and accessibility by end users. E-records organisation involves developing clear guidelines on how records should be organised, saved and maintained. When organising e-records, it is pertinent to ensure that file guidelines are established for all types of e-records, regardless whether it is a document, an email or instant message. McCorry (2009) recommends that the first consideration in organising your e-records is to determine drive mapping on your network for storing organization's e-records. Some organizations have one shared drive, where they organise all their e-records, while other organizations have separate mapped drives for each primary department, units or subject matter. He further stated that the advantage of having a separate mapped drive is that it is easier to set up permission as who to access what records. This, to him, is very essential for confidentiality in the case of special and very confidential records of the organisation. The other advantage of having a separate mapped drive for each department, unit or subject matter, according to him, is to prevent users and records managers from making mistakes of filing e-records and data in the wrong folder or file that often has similar names of files. Standard policy or guidelines for organising

e-records will play a greater role in providing standards for organising e-records in an organisation. The policy will define the process and procedure for establishing and mapping shared drives, classification procedure, naming convention, folder structure, naming and titling subjects, etc. Unfortunately, literature had shown that universities in Nigeria have no uniform records management policy that guides the creation, management and use of records (Asogwa 2012, Iwhiwu 2010).

iv. E-Records Retention and Disposal Process

Record retention and disposal is the process of assigning to all records a minimum legal and fiscal time period they must be retained by the organisation or creating agency. Part and parcel to good records management programme is the timely destruction of records once their retention period has expired (Montana, 2010). Records management services in collaboration with the management of the organisation or agency determines these period in conformance with national policy on public records retention and disposal schedule. Final approval of any records retention schedule comes from the state or federal records committee, which comprised representatives of the Attorney General, State Treasurer, State Auditor-General, head of the organisation and director of the division (New Jersey, 2015).

Rutta (2013) describes records retention schedule or records retention and disposition schedule, as a control document that:

- a) Identifies all the records created or maintained by the organization or an administrative unit of a public service organization;
- b) Specifies the periods for which they are to be retained and their place of custody during those prescribed retention periods,

- c) Authorizes their disposal at the appropriate time and indicates the disposal action to be taken.

In order for the public service and all organizations to be able to know a length of time that records should be retained in an office or transferred to an archival institution or otherwise disposed of. Every office needs to develop or use a retention schedule which will be used as a guide to identify records that have continuing utility or values and those valueless that need to be destroyed. Rutta (2013) continued to maintain that the purpose of retention and disposal schedules includes:

- a) Ensure that records are retained for as long as they are needed and no longer
- b) Consistent approach across the organization
- c) Avoid unnecessary duplication
- d) Ensure appropriate storage location
- e) Identify and protect “Vital records”
- f) Identify records of long term value and ensure their preservations.

E-records disposition, on the other hand, refers to the final decision about whether to dispose of records or keep records permanently. Disposition of records can mean either destroying them or formally donating them to another organization after the records have met their legal retention period. To effectively dispose your e-records, there is the need to establish a formal procedure that ensures records are disposed of regularly. This will safeguard against the accidental destruction of records that have not met their minimum retention periods or are needed for litigation, audits or other investigations. In disposing your e-records, it is important to note that deleting records and emptying the “recycle” folder or “trash” bin from electronic storage media, such as CDs, hard drives, tapes, etc., does not permanently destroy the information. Some printers and photocopiers

with document memory capability may require data cleaning also before sale or disposal. If data is not sensitive or private, simply overwriting the information may be adequate.

To completely delete e-records or prevent retrieval, especially of records stored on hard drives, USB or flash drives and other plug-in type devices can only be sanitized by running special software programs or following the manufacturer's instruction for full chip erasure. For Windows operating systems, Active Eraser is one product that erases files and hard drives. It is available at <http://www.active-eraser.com/features.htm> (Rockefeller, 2008). A certificate for destruction must then be issued by the supervising agency certifying that records were destroyed according to the records retention and disposition guidelines.

2.4 ICT Facilities for Electronic Records Management

ICTs are instruments that facilitate communication and the processing and transmission of information by electronic means. ICTs embody a full range of old and new technologies such as radio, television, computers and Internet, telephones – both fixed and mobile, fax, printers, scanners and the print media (Luyombya, 2010). As defined by Luyombya (2010), ICTs are tools that can enable the creation and management of electronic records. The ICT facilities that are used for electronic records creation, management and preservation include computers, software, printers, scanners, photocopiers, digital cameras, air conditioners, telephones, Internet connectivity, cassette and tape recorders, Decision support system (DSS), Electronic records management system (ERMS) and Online transaction processing system (OLTPS). Other ICT facilities that were used to store data include: CD's, CD-Rom, DVD's,

Blu ray, flash drives, memory cards, etc. However, Bantin (2002) identified Decision support system (DSS), Electronic records management system (ERMS) and Online transaction processing system (OLTPS) as the most suitable systems for processing e-records and documents. But most of these facilities identified by Bantin (2012) were not available in any federal university in Nigeria (Asogwa, 2012).

Asogwa (2012) describe the implication of the non availability of ICT facilities in Nigerian Universities that are ill-equipped or unprepared for electronic records management because these technologies were known to be very good at 'supporting the needs for information, minimizing the amount of data stored in the system, improving efficiency of the system, removing obsolete data and providing effective way of managing e-records.

3.1 Research Methodology

The researcher adopted survey research design. The type of survey design employed is cross sectional. The use of cross sectional survey design is to allow for the collection of data through the use of a questionnaire. The study was carried out on employees working in the Registry/MIS Departments in twelve Federal Universities located in the six geo-political zones in Nigeria namely, Ahmadu Bello University, Zaria and Bayero University Kano (North west), Abubakar Tafawa Balewa University Bauchi and Modibo Adama Univeristy (MAUTECH) Yola (North East), the University of Abuja and Federal University of Agriculture Makurdi (North Central), University of Ibadan and Obafemi Awolowo University, Ife (South West), University of Nigeria Nsuka and Nnamdi Azikiwe University Awka, (South East) and University of Calabar and University of Portharcourt (South South). The choice of the Registry/MIS Department in these universities was because of their

involvement in the creation, receipt, preservation, custody and use of the largest volume of university records.

The researcher uses simple random sampling technique in selecting samples for the study because in such a technique members of the population under study have equal chances of being selected as subjects. Simple random lottery method was used to draw sample from the larger population where each member of the population was given equal opportunity of being selected. The selection of the universities was because of geographical spread. It was assumed that what was obtained in each of these universities would be used to give judgment of other universities in each of the zones. The population of the study comprised all the registry/MIS staff of the 1st, 2nd and 3rd generation of federal universities in Nigeria. To the best of the researcher's knowledge, there were no data or document indicating the total number of the staff, but preliminary investigations revealed that there was One

Hundred and Fifty Nine (159) staff working in the MIS/registry units. Seven (7) staff's were selected in each University to answer the questions in the instrument, making a total of eighty-four (84). Questionnaires were used during data collection and data was analysed using frequency tables and simple percentages.

4.1 Data Presentation and Analysis of Findings

A total of eighty-four (84) copies of a questionnaire were administered to the respondents in the Universities studied.

4.2 Major types of Electronic Records Generated/Received by the Universities

Respondents were also asked to specifically indicate the major types of electronic records or files that are generated or received by their universities. Table 2 shows the frequency of different major types of electronic records generated by the universities.

Table 1: Major types of E-Records Generated and Managed by the Universities

S/N	Major types of E-Records		
		Frequency	Percentage
1.	Student Academic Records	62	77.5%
2.	Post UTME records	48	60%
3.	Students Result records	43	53.8%
4.	University Senate Proceedings records	43	53%
5.	PG Application records	42	52.5%
6.	Student reports	41	51.2%
7.	Personnel records	40	50%
8.	Students Transcript records	39	48.8%
9.	Payroll records	37	46.2%
10.	University Committees reports	37	46%
11.	Hostel Allocation records	24	30%
12.	Management Meetings records	24	30%
13.	University Security records	24	30%
14.	Weekly Bulletins Database	22	27.5%
15.	Health Information records	22	27.5%
16.	Project Management Database	11	13.8%

Table 1 presents the major types of electronic records generated and received by the universities studied. Majority 62 (77.5%) of the respondents indicated that students academic records were the most generated. Followed by more than half who indicated Post UTME 48 (60%), Students' result records , 43 (53.8%), University senate proceedings 43 (53%) PG Application records 42 (52.5%) and Student reports 41(51.2%) were among the major types of e-records generated by the universities studied. Whereas the least is project management with 11(13.8%). The reason why student academic records were the most generated is because, right from admission up to graduation, the academic records of every student are permanently kept in the university database. The ability of the universities to preserve and produce the academic records of their students at the point of demand indicates the effectiveness of their records keeping process (Popoola and Oluwale 2007). The findings of this study is in

line with the study conducted in Botswana by Sejane (2004) and Uganda by Luyombya (2010) where they equally identified a number of e-records, data files and databases that were mostly generated in the organisations they studied.

4.3 The Management Procedures Used in Managing E-Records

To find out the management procedures used in managing e- records, especially such practices as appraisal, organisation, accessibility, retention and disposal, data from the respondents were collected and presented as follows.

Policy on E-Records Management

Respondents were asked to indicate whether their universities had policy and guidelines on the management of e-records. Table 4.7 shows their responses with regards to the existence of policy on e-records management in their universities.

**Table 2: Availability of E - Records Management Policy in the Universities
N= (80)**

S/N	Availability of ERM Policy	Frequency	Percentage
1	Yes	47	57.3%
2	No	8	9.8%
3	Not aware	18	22%
4	No Response	7	11%
	Total	80	100%

Table 2 indicates the availability of policy on e-records management in the universities studied. More than half, 47 (57.3%) of the respondents revealed that they had policy in their universities that guided the management of e-records. Eighteen (22%) respondents indicated they were not aware of the existence or availability of any policy on e-records management in their universities. Eight (9.8%) respondents indicated that there was no policy on e-records management. The findings show that generally there was the

existence of policy on e-records management in the universities. However, only half of the respondents could ascertain the availability of the policy. The researcher also observed that none of the universities was able to present the physical copy of the policy when requested. If policies for managing e-records are not written in any policy document it would be very difficult for the staff to systematically put them into practice. Moreover, policies of this magnitude should be developed nationally by the National University Commission (NUC)

that is saddled with the responsibility of coordinating and regulating the activities of Nigerian universities.

The absence of a National policy on e-records management has caused monumental damage to e-records management practice in such a way that each University had a different way of managing their e-records without a common standard for them all (Asogwa, 2012). There were no policy on e-records appraisal, e-records organisation, e-records storage and accessibility, e-records retention and disposition and e-records preservation. Access to e-records remotely from the Universities would be difficult without general policy on how these management procedures should be executed across the Universities. E-records policy will assist in streamlining the processes and procedures involved in the records keeping process for all the Nigerian Universities. The findings of this study support the findings of researches

conducted in ESARBICA countries, such as Botswana, Namibia and South Africa whereby policies and procedures for the management of public digital records were developed but are yet to be fully implemented, as reported in the IRMT report of 2009. Furthermore, the findings of this study corroborate that of Iwhiwu (2009), who reported the absence of a National policy on records management in Nigeria, and Asogwa (2012), who equally stated the absence of policy for records management in Nigerian universities.

4.4 Electronic Records Appraisal

Respondents were requested to indicate the method they used to appraise e-records in their respective universities. Table 4 summarises the responses of the respondents with regard to methods they used to appraise e-records in their universities.

Table 3: Methods Used to Appraise E-Records N= (80)

S/N	Methods	Frequency	Percentage
1	Retention Schedule	25	31.25%
2	Standing Instructions	29	36.25%
3	No Response	26	32.5%
	Total	80	100%

Table 3 indicates that standing instructions with 29 (36%) respondents was mostly used by the universities. This was followed by 26 (32%) respondents who did not respond to the question. In the same vein, 25 (31%) respondents revealed that Retention schedule was the method they used in appraising e-records in their universities. The findings of the study corroborate with that conducted by Kalusopa (2011) in Botswana where he reported that labour organisations used standing instructions to appraise their e-records. However, looking at the significant number at 26 (32%) who did not respond to

the question may signal the fact that there was no common method adopted by the universities in appraising their e-records. To buttress the findings of this study, Asogwa (2012) also confirms the absence of standard methods for e-records appraisal in Nigerian Universities. The implication of the findings here is that each University might have developed its own standing instructions on records appraisal because of the absence of a National policy on records management.

The implication of the findings is that there is no standard procedure for e-records appraisal in the Universities studied. This may

not be unconnected with lack of legislation and policy framework for e-records management activities in Nigerian universities. However, this negative development will definitely affect records management process in the universities in many ways. There will be no standards, quality control in terms of records management process such as type and use of

common storage media and standards in preservation strategies.

4.5 Electronic records Organisation

To find out the methods of organising e-records in Nigerian universities, the respondents were asked to indicate the method they use. Table 4 presents their responses.

**Table 4: Methods of Organising E-Records in the Universities
N= (80)**

S/N	Types of Formats	Frequency	Percentage
1.	Electronic Folders	19	23.75%
2.	Directories	10	12,5%
3.	Databases	43	53.75%
4.	No Response	8	10%
	Total	80	100%

Table 4 indicated that more than half, 43 (53%) of the respondents indicated creating a database as the method of organising their e-records, 19 (23%) created electronic Folders and 10 (12.5%) indicated creating directories to organise their e-records. Therefore, the findings of this study clearly show that the universities organised their e-records in database format. The findings of the study are in consonance with the declaration made by IRMT (2012) that the method used in organising e-records depends largely on the types of e-records generated or received by the organisation. In the same vein, studies conducted by Iwhiwu (2010) and Asogwa (2012) are precursors to the findings of this study, where they reported that institutions and Universities in Nigeria organised their records in database format.

However, the goal of organising records is to ease identification, accessibility, preservation and security. Therefore, whichever way the universities adopt in organising their records must conform to the

above objective. In the same vein, records management scholars are of the view that the most effective approach to organizing electronic records is to have a filing system that mirrors your paper files. Create a series of electronic folders and subfolders on a server arranged hierarchically from the general to the specific in a series of directories. It is pertinent to note that, for easy retrieval of all organised e-records, there is the need to develop naming conventions that are logical and consistent and allow the sensible sorting of all records.

4.6 The E-Records Retention and Disposal Process

What does the universities considered in retaining and disposing their e-records, Table 5 summarises the responses of the respondents.

Table 5: Factors Considered in Retaining E-Records N= (80)

S/N	Factors For Retaining E-records	Frequency	Percentage
1.	Informational Value	42	52.5%
2.	Archival Value	19	23.75%
3.	Legal Value	9	11.25%
4.	No Response	10	12.5
	Total	80	100%

Table 5 presents the response of the respondents on the factors considered to retain e-records. From the findings, it is clear that more than half ie, 42 (52.5%) respondent indicated that their universities considered informational value in retaining their e-records. Nineteen (23.75%) respondents indicated archival value, and only 9 (11.25%) indicated legal value. Ten (12.5%) respondents didn't respond to the question. The findings of the study revealed that majority of the universities studied considered informational value as a factor for retaining e-records in their universities. The findings of the study do not conform with the studies conducted by Nengomasha (2009) and Kalusopa (2011), where they reported that the procedures for retaining e-records are mostly stated in the records retention and disposal schedule of parent organizations. In support of the above point, Rutta (2013) reported that records retention and disposal is a big business in the developed world. To remain legally compliant, not only must you ensure that your records are destroyed at the appropriate time, you must also make sure that your records cannot be deleted maliciously. Moreover, academic institutions and business enterprises in developed countries have subscribed to the use of software such as ONBASE to easily implement their retention and disposal plans and policies to their electronic records (IRMT, 2012). Onbase records retention and disposal software ensure that your sensitive records are not deleted until their official retention period has

expired. This kind of innovation is what our Universities should be aiming at, so that we can have reliable and standard records retention and disposal processes.

Conclusions and Recommendations

This study investigated the management of electronic records generated or received in federal universities in Nigeria. The study, however, confirmed that universities in Nigeria are generating and receiving similar types of e-records because they have the same objectives. Moreover, the study revealed that e-records management substructure is weak and may collapse if concerted and revolutionary measures are not taken to save the situation.

The study found that the universities studied generated and received e-records comprising students academic records, students results, PG applications records, student transcripts, students reports, payroll records, personnel records, direct entry and Post UTME screening records, hostel allocation records, business plans, workshops and conference papers, policy documents, tax invoices, electronic mails, press releases records, bulletins and project management records etc. The study found that majority of the universities had no policy and guidelines on electronic records management. Even those that indicated having such policies were not using them to manage e-records. This finding has confirmed that each university was managing its records independently without common standards or guideline

across all universities. The study, however, revealed that there was no standard or general appraisal policy in all the University studied. Rather, the universities used standing instruction to appraise their e-records. Going by the above findings, it is very clear that each University had its own appraisal policy and different ways of appraising records of archival value.

Regarding the organization of e-records, the formats found very effective and adopted by the Universities to organize their e-records were data files and databases. This is because they generated or received similar records in form of databases. On e-records retention, the findings of the study revealed that the universities studied considered the informational value of a record as a major factor in retaining it. The findings revealed that there was no standard records retention and disposal policy in Nigerian Universities, which clearly demonstrated that each University had its own policy on records retention and disposal.

The overall findings of the study reveal that electronic records generated or received were not adequately managed to guarantee access in federal universities in Nigeria due to so many factors identified by the study. To effectively managed e-records in federal universities in Nigeria, the study recommends the following measures:

✓ The study found that most Universities lacked record creation policies and procedures. There were no recognised procedures and standards for titling, indexing, classifying and describing records so that they could be organised systematically and retrieved easily when needed. To this end, it is recommended that universities put in place records creation policies that stipulate the requirements for the

description of records for the purposes of capturing, registering, classification, storage, tracking, access and disposal. Such policies, standards and procedures are required for managing records throughout their life cycle.

✓ The study found that there was no policy on e-records management. Where they have, they were very weak. In this regard, the National Universities Commission (NUC) as a coordinating body should enforce compliance with any legislative requirement that relates to records and information. It is recommended that they develop a range of internal policies, standards and procedures to enable them to fulfill the statutory obligations and improve their operational efficiency.

✓ The study found that there was no policy and guidelines for records appraisal, retention and disposal in the universities. There is therefore, the need for them to develop relevant policies for records appraisal, retention and disposition and also to determine their educational needs for continuing to retain all categories of available records. Retention requirements must be determined for all the main categories of university records based on their value in supporting their administrative, financial, legal, historical, research or informational needs. Universities must also develop efficient mechanisms for the disposal or destruction of records they no longer need, whether they are hard copy or digital. The destruction processes must be secure, complete and well

documented.

- ✓ The study found that there was no well defined classification schemes to guide the organisation of records in most universities. In this context, policies and procedures for organising e-records are recommended.
- ✓ The study found that all the universities had computers and other ICT facilities used to manage e-records. However, majority did not have adequate ICT facilities to manage e-records. It is recommended that university managements should provide adequate funds for the purchase of current and up to date ICT facilities in their records departments.
- ✓ The National Universities Commission should recommend to Government of Nigeria to allocate and release adequate funds for university-wide migration of records to digital environment and consistently monitor the utilization of the fund for the implementation of the project for which it was meant for.

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