# POSSESSION AND UTILIZATION OF ELECTRONIC RECORDS MANAGEMENT SKILLS BY RECORDS PERSONNEL IN UNIVERSITIES IN SOUTH-SOUTH NIGERIA

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## Abstract

The main purpose of this study was to determine the extent of possession and utilization of electronic records management skills by Records Personnel in Universities in South-South Nigeria. Four research questions were answered and four null hypotheses were tested at 0.05 level of significance. The study adopted a descriptive survey design and was carried out in Cross River and Akwa Ibom States in South-South Nigeria. The population comprised 549 respondents, made up of 443 Records Staff, 43 Data Entry Staff, 24 Portal Staff and 39 Faculty Officers from four universities (State and Federal) in Cross River and Akwa Ibom States in South-South Nigeria. There was no sampling since the population could be entirely handled. A structured and validated questionnaire was the instrument used for data collection. The questionnaire items were based on two main response categories namely, skills "possessed" and "utilized". Each response category was based on five-point rating scale with the response options of Very great extent (VGE), Great extent (GE), Some extent (SE), Little extent (LE),and Very little extent (VLE). The internal consistency of the instrument was determined using Cronbach Alpha reliability method. The instrument was administered to 20 respondents at the Federal University of Agriculture, Makurdi, Benue State which was outside the study area. The result yielded an overall reliability coefficient of 0.92 on the extent of possession, and 0.86 on the extent of utilization which was considered reliable enough for the use of the instrument. Data collected were analyzed using mean and standard deviation to answer the research questions while Analysis of variance (ANOVA) was used to test the null hypotheses at .05 level of significance. Based on the analysis of data it was found out that records personnel possessed and utilized electronic records management skills to a little extent for creation, storage, retrieval and migration. Based on the findings, it was recommended among others, that skill training module be developed for training of records staff and that universities should embark on continuous capacity building for records staff.

Key words: Records, electronic records, electronic records management, skills

Globalization and the emergence of information and communication technologies at the turn of the 21st century have greatly impacted on every field of human endeavour including the way institutions create, use and preserve their records. Records have been in existence in the traditional office and have been a vital tool for decision-making. A record is an evidence of a business transaction that can be referred to at a future date. Agomuo (2014) defined records as all papers, 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 characteristic. This means that a record provides

documented evidence of business transaction which can be stored and retrieved at a future date. Records are …0very important to individuals, corporate organizations and institutions such as the university, as these records can be tendered as evidence in law courts or in any situation requiring such a proof. The importance of records and recordkeeping cannot be overemphasized. Corroborating, this assertion, the Commonwealth of Australia Industry Service – CAIS (2007) asserted that recordkeeping is very essential because records are reliable sources of facts kept to provide information in the daily business transaction. Records contain all the information necessary for the functioning of an institution like the university, government, business organizations, corporate bodies and individuals. In the context of this study, a record is defined as an evidence or proof of all transactions carried out in the course of university business and which can be preserved for reference purposes.

The management of records is paramount to protect them against damage, loss or alteration. Records management is the systematic control of recorded information required in the operation of an organization‟s business, from creation and active maintenance and use, through inactive storage, to final disposition (CalRim, 2002). In this study, records management is viewed as the efficient control of the procedures involved in the creation, storage, retrieval and disposition of documented evidence of all transactions of university business. Information derived from records has become a key business resource for universities (Bailey, 2007; Thornhill, 2008). Valuable pieces of information are obtained from records created and stored, which could be retrieved when needed. The storage of records involves the systematic assembling of documents in containers or depositories for possible future retrieval. Records retrieval involves locating and producing records for use when needed. In order to fulfill evidential purposes, records must be properly managed.

In the past, records were usually created, preserved and retrieved manually in enclosed file jackets stored in cabinets.

Figure 1: Traditional records keeping and records management
Source: Field data

This traditional approach to records management has become grossly inadequate, inefficient and obsolete, resulting in duplication and accumulation of redundant records, wastage of storage space and personnel handling cost.

The 21st century society has become so greatly digitalized that government institutions, corporate organizations, universities and other educational institutions are imbibing electronic culture. Thus in this era of information explosion, the use of computers and electronic technologies results in creating more electronic records.

Moreover, universities are embarking on Information and Communication Technology (ICT) initiatives to overcome the short-comings of paper-based records. Such initiative is to facilitate the smooth flow of information and records by introducing computer-based, online admission, registration, verification, posting of results of students and other related records. The adoption of ICT has led to the increased volume of electronic records.

Electronic records, according to the State of Florida (2010) refer to any information that is recorded in machine-readable form. According to New York State Archives (2012), electronic records include numeric, graphic, audio, video and textual information which is recorded or transmitted in analogue or digital form such as electronic spreadsheets, word processing files, databases, electronic mails, instant messages, scanned images, digital photographs and multimedia files. Similarly, Agomuo (2014) described electronic records as information or data files that are created and stored in digitized form through the use of computers and application software. In the context of this study, electronic records refer to evidence of transaction in form of information created, stored and retrieved electronically by means of computerized technologies as evidence of transaction. These electronic records need to be efficiently managed in order to preserve their integrity and authenticity. However, studies have shown that poor management of electronic records could lead to expensive legal liabilities (Michalson and Hughes, 2005; Image and Data Manager, 2006), inability to share information, wastage of storage space and poor governance (JISC 2004; Maguire, 2005). Thus universities are confronted with the problem of paper records management, and coping with problem of voluminous records in paper format, thereby causing delay in records retrieval for decision making when needed. This phenomenon has made it imperative for institutions such as the universities to adopt electronic records management.

Electronic records management involves the process of controlling the use of records in electronic format throughout the records life cycle. Electronic records management (ERM) has been defined by the National Archives of Australia (2008) as an electronic method used to support the creation, use and maintenance of records for the purpose of improving the organization‟s workflow. Similarly, Ernest and Young (2009) defined electronic records management as the digital practice of maintaining an organization‟s records from the time of creation to their eventual disposal. It involves the use of electronic recordkeeping system, which Okereke (2011) described as the development of automated processes which an institution (such as the University) employs to manage its electronic records.

Electronic records management (ERM) is relatively new in Nigeria. Whereas countries such as the United States of America, Florida, Uganda and Australia, among others have long established framework and policies for effective implementation of electronic records management (CalRim, 2002; ICA, 2010; Luyombya, 2010 and Nguyen, 2011), there is dearth of studies regarding electronic records management skills possessed and utilized in the management of university records in Nigeria. Most universities are still in the process of transition from paper records to electronic records, or still employing the traditional method of recordkeeping in file and cabinet. This could be attributable to lack of skilled records personnel.

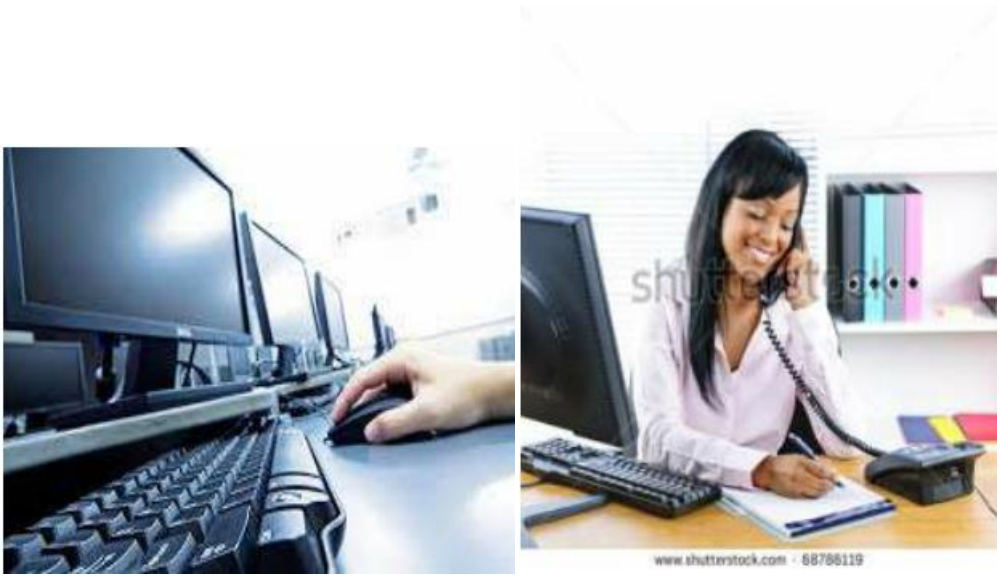

Figure 2: Electronic records management
Source: Researcher's field data

However, the management of records electronically has become necessary for ease of control and this practice requires that University records personnel should possess and utilize functional skills in electronic records management in order to ensure efficient service delivery. These skills include ability to: identify e-records for capture; create and classify e-records; register and locate files in corporate records; retrieve e- records; disposition of e-records generated from the database; as well as documenting the transactions carried out to ensure that e-records are properly maintained (CalRim, 2002; States Records New South Wales, 2004; Osuala, 2009; Riley, 2012; Agomuo, 2014; Queensland, 2014). The possession and utilization of appropriate skills would greatly enhance the efficiency and effectiveness of records personnel in managing electronic records.

Possession implies ownership or to have. Therefore, possession of electronic records management skills means to have the ability to handle records electronically. Records personnel need to possess e-record skills to enhance their efficiency in managing e-records. In this work, possession of e-records skills refers to the ability to create, store, migrate and retrieve e-records when required for decision making.

Utilization, on the other hand, involves the use or application of resources (skills) in performing specific functions. Raghu (2009) conceptualized utilization as the primary method by which asset performance is measured and business determined. Utilization involves creation of value in things. In the opinion of Igwe (2009), to utilize means to apply something to achieve objectives, values and develop interest. A skill is said to be utilized when it is put into use in the performance of specific tasks to achieve specific goals. In the context of this work, utilization implies the application or use of electronic records management skills efficiently to accomplish the task of managing electronic records through the records life cycle from creation to final disposition. The efficiency and effectiveness of e-records management would be greatly enhanced by the possession and utilization of appropriate e-records management skills.

Skill is the ability to demonstrate acquired competencies, expertise, attitude and behaviour in the performance of a given task. This implies that skill can be acquired rigorously through a training process and exposure to theories and practices inherent in a

field of study. In the opinion of Ibezim and Ukwueze (2010), skill is seen as the capacity, technique or ability to do something well. Electronic records management (ERM) skills refer to the ability to create or capture, store, retrieve, migrate and dispose records in electronic format. Such ERM skills include electronic records (e-records) creation skills, storage, retrieval and migration skills. The extent to which records personnel possess and utilize these skills would significantly assist University in the efficient management of electronic records.

E-records creation skills involve the ability to capture and process text, images as well as proficient application of Microsoft Word to input records, create folders and document titles. Records personnel are staff entrusted with the management of records in an organization or institution. In some establishments, records personnel are designated as records managers, records secretaries or simply as records personnel. CalRim (2002) defined a records manager as an individual within an organization who has the responsibility of systematically controlling the recorded information generated and received by the organization. In the opinion of Nasieku (2012), records personnel also include management staff, Information and Communication Technology (ICT) staff, general administration, records/secretarial staff involved in creating and using records. In this study, records personnel refer to those individuals employed by the universities with the explicit responsibility of creating, storing, maintaining and retrieving recorded information pertaining to university transactions. They include Portal Managers, Data Entry Staff, Administrative staff who are designated as records staff in the universities. Faculty Officers of the university are also involved in the creation and maintenance of faculty records in the university.

These records personnel perform similar duties irrespective of their gender and qualification. Anyakoha (2010) described gender as denoting the different roles men and women play in the society and to the relative power they wield. Njuki (2011) conceptualized gender as the socially constructed roles and status of women and men, girls and boys. Gender is viewed as a set of culturally specific characteristics defining the social behaviour of women (females) and men (males), girls and boys, and the relationship between them. Gender-based discrimination started with girl child, which goes to affect the choice of occupation regarded as feminine or masculine. Although gender bias is in practice, male and female staff are found working in different occupations requiring records. Thus male and female records personnel with similar or diverse qualifications may find themselves performing the task of managing records electronically. Qualification is an attribute that enhances one‟s chances or ability to perform specific role. Xasa (2010) posited that education received in schools or colleges qualifies one for employment while personal development remains the key to continuous relevance in electronic era. Educational qualification may therefore enhance the performance of records personnel. On the other hand, personal development provides opportunity to update skills and knowledge especially in the university.

Universities are apex institutions of higher learning which are service-oriented. They offer a variety of services that include teaching and learning, research and community development services geared towards the development of high-level manpower to propel national development. According to Adekigbe in Ochai (2010), University is a place of enlightenment, a place for exploring the frontiers and an institution in which people through the process of socialization, are imbued with the ability, not just to discern things, but also to apply theories to explain events, values, the knowledge of the natural order for the pursuits of the common good and the individual well-being. The

university is therefore the highest level of learning for training high level manpower and equipping the individuals to determine their level of performance of future roles.

The National Universities Commission (NUC) is the only professional body that lays down academic standards and content to be achieved by learners in Nigerian universities NUC, (2005). In line with Section 10 of Decree No. 16 of 1988, amended under Section 4 (19) of the amended Decree No 4 of 1988, the NUC is also empowered to ascertain (by accreditation process) a standardized procedure by which inputs and outputs are assessed and adjudged in relation to the benefits by the society at large. Furthermore, NUC which has the mandate for the establishment of minimum academic standards in Nigerian Universities, provides that each Department should have at least one Secretary (computer literate) with other clerical staff to support the administration in handling university records (NUC, 2007). NUC also provides that in terms of physical facilities, every Faculty should have a computer laboratory. Similarly, the Federal Republic of Nigeria – FRN (2012), enacted an ICT policy. One of the cardinal objectives of the policy is to ensure that the reality of convergence is reflected in the ICT sector, notably in the areas of regulation, operation and service delivery, and to facilitate the creation of a robust and consolidated digital archives. In view of the foregoing, universities including those in Cross River and Akwa Ibom States are perpetually involved in records creation, storage and dissemination as an essential component of their functionality. However, it has become a recurrent issue for records to be irretrievable when required especially in Nigerian tertiary institutions. The complexity of this problem is better appreciated by those who bear the brunt especially university teachers, students, parents and administrators who require students records to facilitate accurate, timely decisions. The foregoing points to the need for sound and efficient management of university records which encompass staff records such as employment, promotion, training, payroll, retirement, pensions, discipline; and students‟ records consisting of admission, examination, results, transcripts, and certificates among others. Iwhiwhu (2005) asserted that university records support the educational, research and administrative activities of the university as well as the objective of the university to support teaching, research and other community services of the university. This view is corroborated by Akor and Udensi (2013) who asserted that decision making in the university system is an administrative function and invariably requires information in the form of records.

As universities respond to the global demands in most of their operations, electronic records are being generated. Studies (Smith and Miller, 2007) showed that 90% of records created in recent times are in electronic format, and a vast majority of such e-records are never printed in form of hard copies. In a bid to ensure that universities connect to the information superhighway and be able to align and communicate beyond institutional boundaries with other academic and research institutions, as well as government, electronic records have to be managed efficiently.

## Statement of the Problem

Universities today generate a variety of electronic records in the course of their routine activities as most of the operations which traditionally depended on information derived from paper records have become partially or entirely digitalized. University transactions now transcend geographic boundaries, thus creating demand for cross-border access to University records. This researcher has observed that there have been instances of inefficiency in university records systems, resulting in cases of students‟ academic records as well as other vital records being misplaced, and in some cases, lost completely,

partially damaged or being in a form that made it difficult to retrieve and disseminate information. Complaints from students and their parents abound on the slow pace of records access and retrieval, thereby causing delay in processing students‟ result for approval, mobilization for youth service, issuance of certificates, academic transcripts among others. Similarly, there have been reported cases of disappearance of complete records, or part of records pertaining to staff discipline and related matters making it very difficult or impossible for vital decisions to be taken. This observation is corroborated by Popoola and Oluwale (2007) who asserted that Nigerian university administrators are often confronted with alarming rate of misplacement or loss of vital records and the slow speed at which needed records are retrieved.

It has been established that records management problems are more pronounced in the university system because accurate, reliable and trustworthy records that fulfill evidential requirements are being created but not properly managed in Nigerian universities (Egwunyenga 2009, Nakodia, 2011). This according to Modebelu and Onyali (2014), is due to inadequate training and inadequate ICT literacy. Akor and Udensi (2013) pointed out that the loss of university records or even a part of them could destroy the evidence of students‟ achievements, staff entitlements and jeopardize the university‟s right and interest. Akor and Udensi noted that it has become a recurrent issue for records to be irretrievable when required in Nigerian universities. Particularly, there have been reported cases of loss of records, delay in retrieving records on students‟ results, transcripts, generation of fee schedule, reports or minutes of meetings, among others, and these create lags in decision-making. The need to operate in accordance with global orders has made ICT an indispensable standard for the 21st century in Nigeria (Wokocha 2013). Thus ability to utilize ICT resources has become a global benchmark against which to measure quality of performance. Furthermore, the records personnel in these universities were employed as administrative staff and deployed to work with records; they might not have been trained in electronic records management.

The paradigm shift from manual records to electronic management has created records management problems of transitioning from traditional records management to electronic records management, with the attendant skills requirements by the personnel responsible to perform such functions. This situation has created a gap as to whether records personnel in the study area possess the necessary e-records skills, and if they are utilizing such skills in the management of university e-records. This is a source of worry to the researcher. It is based on the foregoing premise that this study was undertaken to empirically determine the extent of possession and utilization of electronic records management skills by records personnel in universities in South-South Nigeria.

Purpose of the study

The main purpose of this study is to determine the extent of possession and utilization of Electronic Records Management skills by Records Personnel in Universities in South-South Nigeria. Specifically, the study will determine the extent of possession and utilization of:

1 e-records creation skills by Records Personnel in Universities in South-South Nigeria.
2 e-records storage skills by Records Personnel in Universities in South-South Nigeria.
3 e-records retrieval skills by Records Personnel in Universities in South-South Nigeria.

4 e-records migration skills by Records Personnel in Universities in South-South Nigeria.

Research Questions

The study was guided by the following research questions:

1. To what extent do records personnel possess and utilize e-records creation skills in Universities in South-South Nigeria?
2. To what extent do records personnel possess and utilize e-records storage skills in Universities in South-South Nigeria?
3. To what extent do records personnel possess and utilize e-records retrieval skills in Universities in South-South Nigeria?
4. To what extent do records personnel do records personnel possess and utilize e-records migration skills in Universities in South-South Nigeria?

Hypotheses

The following null hypotheses were formulated to guide the study and were tested at 0.05 level of significance:

$Ho_1$: There is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of e-records creation skills by records personnel in Universities in South-South Nigeria.

$Ho_2$: There is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of e-records storage skills by Record Personnel in Universities in South-South Nigeria.

$Ho_3$: There is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of e-records electronic records retrieval skills by Records Personnel in Universities in South-South Nigeria.

$Ho_4$: There is no significant difference in the mean ratings of Records Staff, Data Entry Staff and Portal Staff in the four universities with respect to the extent of possession and utilization of e-records migration skills by records personnel in universities South-South Nigeria.

Methods

The study was conducted in Cross River and Akwa Ibom States located in South-South Nigeria. A descriptive survey design was adopted for the study. The population used for this study comprised 549 records personnel made up of 446 Records staff, 43 data entry staff, 36 faculty officers and 24 portal staff drawn from the four universities – two Federal and two State Universities in the study area. There was no sampling since the population was manageable by the researcher. According to Nworgu (2006) a census survey can be used when the entire population is to be studied. This is further supported by Azuka, (2011) who posited that if a population is relatively small and can be easily surveyed, the entire population should be studied.

The instrument for data collection was a structured and validated questionnaire titled " extent of possession and utilization of electronic records management skills by records personnel in universities in South-South Nigeria" (EPUERMS) developed by the researcher. The questionnaire had two main response categories namely, skills "possessed" and "utilized". Each response category was based on five-point Likert-type rating scale with the response options as: Very great extent (VGE) – 5, Great extent (GE) – 4, Some extent (SE) – 3, Little extent (LE) – 2 and Very little extent (VLE) – 1. The

reliability of the instrument was established by administering the instrument on 20 respondents from Federal University of Agriculture, Makurdi, which was not part of the study area.

Cronbach Alpha reliability method was used to ascertain the internal consistency of the instrument.

The reliability test yielded an overall coefficient of 0.92 on the extent of possession and 0.86 on the extent of utilization. The researcher personally administered the questionnaire to the respondents with the help of eight (8) research assistants who were duly instructed by the researcher on the how to administer and retrieve the instruments. A total of 549 copies of the questionnaire were administered on the respondents, out of which 429 copies representing 78% were retrieved. Data collected were analyzed using mean and standard deviation to answer the research questions while Analysis of Variance (ANOVA) was used to test hypotheses the null hypotheses at .05 level of significance. All the computations were done using Statistical Package for the Social Sciences (SPSS) software.

## Results

The responses elicited from the respondents are analyzed and presented in the tables that follow.

### Research Question One

To what extent do records personnel possess and utilize electronic records creation skills in Universities in South-South Nigeria?

In order to answer this research question, 20 items were generated and presented to the respondents. The respondents‟ responses are presented in Table 1.

Table 1
Mean and Standard Deviation of Respondents on Extent Records Personnel Possess and Utilize Electronic Records Creation Skills.
N = 427

| S/N | Item Statement | Possession $\bar{}_p$ | $SD_p$ | RMK | Utilization $\bar{}_u$ | $SD_u$ | RMK |
|---|---|---|---|---|---|---|---|
| 1 | Identify e-records that need to be created within the university business transaction process | 2.22 | 0.72 | LE | 2.10 | 0.69 | LE |
| 2 | Create e-records folder structure with different levels of transaction | 2.47 | 0.65 | LE | 2.35 | 0.95 | LE |
| 3 | Document e-records title | 3.11 | 0.75 | SE | 2.85 | 0.80 | SE |
| 4 | Select e-records elements orderly | 2.38 | 1.03 | LE | 2.31 | 0.88 | LE |
| 5 | Create and complete form electronically | 2.48 | 0.89 | LE | 2.43 | 0.96 | LE |
| 6 | Use image processing system to create website | 2.35 | 1.08 | LE | 2.30 | 1.04 | LE |
| 7 | Scan document/e-record into record keeping system | 2.50 | 0.89 | SE | 2.47 | 1.07 | LE |
| 8 | Associate metadata with the content of e-records | 2.34 | 0.84 | LE | 2.28 | 0.95 | LE |
| 9 | Assign unique identifiers to e-records that will remain permanent or unchanged over time | 2.22 | 0.85 | LE | 2.21 | 0.97 | LE |
| 10 | Assess the authenticity, completeness and usability of e-records | 1.26 | 0.88 | VLE | 1.21 | 0.96 | VLE |
| 11 | Capture e-record into trusted recordkeeping repository that maintains records integrity | 2.45 | 0.98 | LE | 2.42 | 0.94 | LE |
| 12 | Apply security access control during process of e-record creation | 2.48 | 1.00 | LE | 2.44 | 0.90 | LE |
| 13 | Establish technical/human audit security access control at the point of e-record creation | 2.31 | 0.99 | LE | 2.20 | 0.98 | LE |
| 14 | Draw elements of metadata to create metadata profile for e-record | 1.58 | 1.00 | LE | 1.46 | 0.98 | VLE |
| 15 | Validate metadata classification scheme | 1.42 | 0.99 | VLE | 1.36 | 0.93 | VLE |
| 16 | Create relationship to control the selection of metadata | 2.43 | 0.95 | LE | 2.32 | 1.05 | LE |
| 17 | Create database | 2.55 | 1.08 | SE | 2.52 | 1.01 | SE |
| 18 | Manage database | 2.36 | 1.08 | LE | 2.31 | 0.99 | LE |
| 19 | Create records in database | 2.52 | 0.93 | SE | 2.51 | 1.00 | SE |
| 20 | Create e-records using digital image system to impute data. | 2.46 | 0.99 | LE | 2.46 | 1.05 | LE |

| | | | | | | |
|---|---|---|---|---|---|---|
| Cluster Mean | 2.29 | 0.52 | LE | 2.28 | 0.52 | LE |

$\bar{x}_p$ = Mean of possession
$\bar{x}_u$ = Mean of utilization
$SD_p$ = Standard deviation of possession
$SD_u$ = Standard deviation of utilization
Rmk = Remark
VGE = Very great extent, GE = Great extent, SE = Some extent, LE = Little Extent, VLE = Very little extent.

The result in Table 1 shows the mean and standard deviation of respondents on the extent records personnel possess and utilize electronic records creation skills in Universities in South-South Nigeria. Result shows that on possession column, items 1, 2, 4-6, 8, 9, 11-14, 16, 18 and 20 had mean ratings of 2.22, 2.47, 2.38, 2.48, 2.35, 2.34, 2.22, 2.45, 2.48, 2.31, 1.58, 2.43, 2.36 and 2.46 with standard deviations of 0.72, 0.65, 1.03, 0.89, 1.08, 0.84, 0.85, 0.98, 1.00, 0.99, 1.00, 0.95, 1.08 and 0.99 respectively. The mean ratings are within the range of 1.50 – 2.49, indicating that records personnel possess those electronic records creation skills to a little extent. However, items 3, 7, 17 and 19 with mean ratings of 3.11, 2.50, 2.55 and 2.52 show that the respondents possess these skills to some extent.

On utilization column, result shows that items 1, 2, 4-6, 8, 9, 11-13, 16, 18 and 20 have mean ratings ranging from 1.50 – 2.49, indicating that records personnel utilize the e-records creation skills listed in that cluster to a low extent. However, result shows that, to a very little extent, the respondents utilize skills listed in items 10, 14 and 15 with mean ratings below 1.50. The cluster mean of 2.29 and 2.28 for possession and utilization respectively show that the records personnel possess and utilize electronic records creation skills to a little extent in Universities in South-South Nigeria.

Research Question Two
To what extent do records personnel possess and utilize electronic records storage skills in Universities in South-South Nigeria?

The respondents‟ answers to this research question are presented in Table 2.

Table 2:
Mean and Standard Deviation of Respondents on Extent Records Personnel Possess and Utilize Electronic Records Storage Skills.

N= 427

| S/N | Item Statement | $\bar{}_p$ | SDP | Rmk | $\bar{}_u$ | SDU | Rmk |
|---|---|---|---|---|---|---|---|
| 1 | Save e-records appropriately in networked system | 2.46 | 0.81 | LE | 2.25 | 1.05 | LE |
| 2 | Ability to save e-record not in active or regular use in offline storage device | 2.12 | 0.88 | LE | 2.10 | 0.87 | LE |
| 3 | Appraise stored records regularly to identify and transfer i\nactive records. | 2.48 | 0.87 | LE | 2.42 | 0.97 | LE |
| 4 | Ability to appraise e-records in line with university e-record policy | 1.48 | 0.85 | VLE | 1.28 | 0.96 | VLE |
| 5 | Ability to apply comprehensive and up-to-date strategies for stored e-record | 1.52 | 0.91 | LE | 1.50 | 0.89 | LE |
| 6 | Carry out regular test of computer and other e-records storage system to ensure prevention from system malfunction | 2.41 | 0.89 | LE | 2.39 | 0.91 | LE |
| 7 | Store e-records in formats that ensure long term preservation and access. | 2.23 | 0.80 | LE | 2.16 | 0.84 | LE |
| 8 | Store e-records in reliable storage device | 2.43 | 0.73 | LE | 2.32 | 0.89 | LE |
| 9 | Store e-records in database | 2.24 | 0.75 | LE | 2.13 | 0.81 | LE |
| 10 | Store e-records in formats that ensures long term preservation | 2.38 | 0.89 | LE | 2.32 | 0.80 | LE |
| 11 | Store e-records in usable format | 2.36 | 0.82 | LE | 2.33 | 0.88 | LE |
| 12 | Convert e-record to portable document file (PDF) for storage | 2.43 | 0.87 | LE | 2.49 | 0.90 | LE |
| 13 | Document and store e-record accurately, preserving the authenticity of the e-records | 2.26 | 0.92 | LE | 1.54 | 0.91 | LE |
| 14 | Add or modify e-record upon authorization | 3.33 | 0.88 | SE | 3.22 | 0.79 | SE |
| 15 | Maintain links to records when adding metadata about e-records | 2.36 | 0.91 | LE | 2.34 | 0.90 | LE |
| 16 | Delete or modify a classification scheme component of e-records by authorized personnel | 2.22 | 0.80 | LE | 2.20 | 0.92 | LE |
| 17 | Track the location of e-record | 2.34 | 0.89 | LE | 2.23 | 0.96 | LE |
| 18 | Differentiate original e-record from a copy by establishing version control | 2.68 | 0.91 | LE | 2.55 | 1.01 | VLE |
| 19 | Update e-record from external storage device | 3.56 | 0.97 | GE | 3.52 | 0.98 | GE |
| 20 | Update records from back-up server | 1.32 | 0.99 | VLE | 1.20 | 1.03 | VLE |
| 21 | Update file code | 2.29 | 0.95 | LE | 2.24 | 1.04 | LE |
| 22 | Monitor changes that require e-record update | 2.28 | 0.93 | LE | 2.21 | 0.91 | LE |
| 23 | Update e-record software | 1.38 | 1.08 | VLE | 1.38 | 0.98 | VLE |
| 24 | Software compatibility analysis skill | 1.56 | 1.00 | LE | 1.42 | 1.05 | VLE |
| 25 | Back-up server creation skills | 2.31 | 1.12 | LE | 2.29 | 1.09 | LE |
| | Cluster Mean | 2.26 | 0.49 | LE | 2.16 | 0.48 | LE |

$\bar{p}$ = Mean of possession

$\bar{u}$ ` = Mean of utilization

$SD_p$ = Standard deviation of possession
$SD_u$ = Standard deviation of utilization
Rmk = Remark
VGE = Very great extent, GE = Great extent, SE = Some extent, LE = Little Extent, VLE = Very little extent.

The results in Table 2 show the mean and standard deviation of respondents on the extent records personnel possess and utilize electronic records storage skills in Universities in South-South Nigeria. Result shows that on possession column, items 1, 2, 3, 5-13, 15-18, 21,22, 24 and 25 had mean ratings of 2.46, 2.12, 2.48, 1.52, 2.41, 2.23, 2.43, 2.24, 2.38, 2.36, 2.43, 2.26, 2.36, 2.22, 2.34, 2.68, 2.29, 2.28, 1.56 and 2.31, with standard deviations of 0.81, 0.88, 0.87, 0.91, 0.89, 0.80, 0.73, 0.75, 0.89, 0.82, 0.87, 0.92, 0.91, 0.80, 0.89, 0.91, 0.95, 0.93, 1.00 and 1.12 respectively. The mean ratings are within the range of 1.50 – 2.49, indicating that the records personnel possess those electronic records storage skills to a little extent. However, items 4, 20 and 23 with mean ratings of 31.48, 1.32 and 1.38, and with standard deviations of 0.85, 0.99 and 1.08 show that records personnel possess the skills listed to a very little extent.

On utilization column, result shows that items 1, 2, 3, 5-13, 15-18, 21, 22 and 25 had mean ratings of 2.25, 2.10, 2.42, 1.50, 2.39, 2.16, 2.32, 2.13, 2.32, 2.33, 2.49, 1.54, 2.34, 2.20, 2.23, 2.24, 2.21 and 2.29 with standard deviations of 1.05, 0.87, 0.97, 0.89, 0.91, 0.84, 0.89, 0.81, 0.80, 0.88, 0.90, 0.91, 0.90, 0.92, 0.96, 1.04, 0.91 and 1.09 respectively. The mean ratings are within the range of 1.50 – 2.40 meaning that to a little extent, the records personnel utilize those electronic records storage skills. The cluster mean of 2.26 and 2.16 for possession and utilization respectively indicate that the records personnel possess and utilize electronic records storage skills in Universities in South-South Nigeria to a little extent.

Research Question Three

To what extent do records personnel possess and utilize electronic records retrieval skills in Universities in South-South Nigeria?

To answer this research question, 14 items were generated and presented to respondents.

The responses from the respondents are presented in Table 3.

Table 3:
Mean and Standard Deviation of Respondents on Extent Records Personnel Possess and Utilize Electronic Records Retrieval Skills. N= 427

| S/N | Item Statement | $\bar{}_p$ | $SD_P$ | Rmk | $\bar{}_u$ | $SD_U$ | Rmk |
|---|---|---|---|---|---|---|---|
| 1 | Retrieve and list e-record with metadata tool | 3.54 | 1.03 | GE | 3.51 | 1.80 | GE |
| 2 | Retrieve and list e-record and associated metadata by their unique identifier | 3.35 | 0.90 | SE | 2.26 | 0.99 | LE |
| 3 | Retrieve e-records by naming principle supported by the system | 3.56 | 0.90 | GE | 3.54 | 1.10 | GE |
| 4 | Retrieve earlier version of e-record | 2.54 | 0.86 | SE | 2.52 | 1.03 | SE |
| 5 | Display e-records in a way that accurately renders their original presentation and content | 3.26 | 0.94 | SE | 3.22 | 0.89 | SE |
| 6 | Display e-records in a way that can be easily understood | 2.52 | 0.96 | SE | 2.50 | 0.91 | SE |
| 7 | Checking in and checking out e-records in a way that permits viewing e-records and prevent modification by other users. | 1.40 | 0.97 | VLE | 1.34 | 1.01 | VLE |
| 8 | Bring forward e-records that can be sent to user on specified date | 3.41 | 0.95 | SE | 3.41 | 1.06 | SE |
| 9 | Display e-record with their associated metadata on request | 2.16 | 1.03 | LE | 2.10 | 1.02 | LE |
| 10 | Manage version control of e-records to avoid retrieval of wrong version | 2.46 | 0.96 | LE | 2.40 | 0.97 | LE |
| 11 | Automatically calculate recall data for charge outs of e-records | 1.48 | 1.06 | VLE | 1.42 | 1.03 | LE |
| 12 | Retrieve e-records with Computer Assisted Retrieval (CAR) | 3.58 | 1.02 | GE | 3.54 | 0.97 | LE |
| 13 | Locate e-records with appropriate search format, i.e. name, file no., date etc | 3.52 | 0.76 | GE | 2.47 | 1.01 | LE |
| 14 | Retrieve e-record from dbase using appropriate query language. | 2.38 | 0.94 | LE | 2.28 | 0.88 | LE |
| | Cluster Mean | 2.80 | 0.61 | SE | 2.60 | 0.61 | LE |

$\bar{}_p$ = Meanof possession
$\bar{}_u$ ` = Meanof utilization
$SD_p$ = Standard deviation of possession
$SD_u$ = Standard deviation of utilization
Rmk = Remark
VGE = Very great extent, GE = Great extent, SE = Some extent, LE = Little Extent, VLE = Very little extent.

The results in Table 3 show the mean and standard deviation of respondents on the extent records personnel possess and utilize electronic records retrieval skills in Universities in South-South Nigeria. Result shows that on possession column, items 1, 3 and 12 had mean ratings of 3.54, 3.56 and 3.58 with standard deviations of 01.03, 0.90, and 1.02 respectively. The mean ratings are within the acceptable range of 3.50 and 4.49. These imply that records personnel possess those electronic records retrieval skills to a great extent. The findings also show that items 2, 4-6 and 8 have mean ratings of 3.35, 2.54, 3.26, 2.52, and 3.41; with standard deviations of 0.99, 0.86, 0.94, 0.96, 0.95 and 1.02 respectively. The mean ratings are within the range of 2.50 -3.49, which indicate that the records personnel possess those electronic records retrieval skills to some extent. Result also show that items 9, 10 and 14 have mean ratings of 2.16, 2.46 and 2.38 with standard deviation of 1.03, 0.96 and 0.94 respectively. This means that to a little extent, the respondents possess those electronic records retrieval skills.

On utilization column, result shows that items 1, 3, and 12 have mean ratings of 3.51, 3.56, and 3.54 respectively. This means that the records personnel utilize those electronic records retrieval skills to a great extent. Results also show that items 4,5, 6,and 8 have mean ratings of 2.52, 3.22, 2.50, and 3.41 with standard deviation of 1.03, 0.89, 0.91 and 1.06 respectively. The mean ratings are within the acceptable range of 2.50 and 3.49, implying that the records personnel utilize those electronic records retrieval skills to a great extent. However, result shows that the respondents utilized to a little extent items 2, 9, 10, 11, 13 and 14 with ratings of 2.26, 2.10, 2.40, 2.47 and 2.28 respectively. The cluster mean of 2.89 and 2.2.60 for possession and utilization respectively show that the records personnel possess electronic records retrieval skills to some extent in Universities in South-South Nigeria to little extent

Research Question Four

To what extent do records personnel do records personnel possess and utilize electronic records migration skills in Universities in South-South Nigeria?

To answer this research question, 12 items were generated and presented to the respondents. The respondents‟ responses are presented in Table 4.

Table 4:

Mean and Standard Deviation of Respondents on Extent Records Personnel Possess and Utilize Electronic Records Migration Skills.

N= 427

| S/N | Item Statement | $\bar{}_p$ | $SD_P$ | R m k | $\bar{}_u$ | $SD_U$ | Rmk |
|---|---|---|---|---|---|---|---|
| 1 | Identify records to be migrated | 2.41 | 0.88 | LE | 2.36 | 1.05 | LE |
| 2 | Document migration action | 3.56 | 0.89 | GE | 3.52 | 0.92 | GE |
| 3 | Determine the target system for migrating the record | 2.43 | 0.98 | LE | 2.40 | 0.93 | LE |
| 4 | Establish retention obligation for e-records migration | 1.34 | 0.96 | VLE | 1.28 | 0.95 | VLE |
| 5 | Convert e-records to migratable software | 2.38 | 1.05 | LE | 2.35 | 0.91 | LE |
| 6 | Import e-record from other software/organization | 2.23 | 0.93 | LE | 2.22 | 1.02 | LE |
| 7 | Export e-record to other software organization for migration | 2.60 | 1.07 | SE | 2.34 | 0.95 | LE |
| 8 | Relocate records from one hardware/software to another | 2.45 | 0.96 | LE | 2.30 | 0.98 | LE |
| 9 | Perform data cleansing prior migration | 1.24 | 1.04 | VLE | 1.18 | 1.00 | VLE |
| 10 | Carry out data mapping | 1.32 | 1.04 | VLE | 1.24 | 1.03 | VLE |
| 11 | Select appropriate metadata for recordkeeping | 2.44 | 0.94 | LE | 2.42 | 0.98 | LE |
| 12 | Determine the destination of the e-records to be migrated. | 1.52 | 0.88 | LE | 1.48 | 0.92 | VLE |
| | Cluster Mean | 2.16 | 0.66 | LE | 2.09 | 0.59 | LE |

$\bar{}_p$ = Mean of possession
$\bar{}_u$ ` = Mean of utilization
$SD_p$ = Standard deviation of possession
$SD_u$ = Standard deviation of utilization
Rmk = Remark
VGE = Very great extent, GE = Great extent, SE = Some extent, LE = Little Extent, VLE = Very little extent.

The results in Table 4 show the mean and standard deviation of respondents on the extent records personnel possess and utilize electronic records migration skills in Universities in South-South Nigeria. Result shows that on possession column, items 1, 3, 5, 6, 7, 8, 11 and 12 had mean ratings of 2.41, 2.43, 2.38, 2.23, 2.45, 2.44 and 1.52 with standard deviations of 0.88, 0.98, 1.05, 0.93, 0.96, 0.94 and 0.88respectively. The mean ratings are within the range of 1.50 – 2.49, which indicate that to a little extent, the records personnel possess those electronic records migration skills. Result also shows that items 4, 9 and 10 have mean ratings of 1.34, 1.24 and 1.32 meaning that, the records personnel possess those electronic records migration skills to a very little extent.

On utilization column, results show that items 1, 3, 5-8 and 11 have mean ratings of 2.36, 2.40, 2.35, 2.22, 2.34, 2.30 and 2.42 with standard deviation of 2.36, 2.40, 2.35, 2.22, 2.34, 2.30 and 2.42 respectively. The mean ratings are within the range of 1.50 – 2.49 meaning that to a little extent, the records personnel utilize those electronic records

migration skills. However, result shows that the respondents utilized items 4, 9, 10 and 12 to a very little extent. The cluster mean of 2.16 and 2.09 for possession and utilization respectively show that the records personnel possess and utilize electronic records migration skills in Universities in South-South Nigeria to a little extent.

Hypothesis 1:

There is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria.

Table 5: Analysis of Variance (ANOVA) of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria.

| | Sum of Squares | Df | Mean Square | F | Sig. | Remarks |
|---|---|---|---|---|---|---|
| Between Groups | 6.577 | 3 | 2.192 | 12.651 | 0.00 | S |
| Within Groups | 73.308 | 423 | 0.173 | | | |
| Total | 79.886 | 426 | | | | |

Data in Table 5 shows the ANOVA result of the significant difference in the mean ratings of respondents from the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria. Result shows that an f-ratio of 12.651 was obtained with a probability value of 0.00. This probability value was compared with 0.05 set as level of significance and it was found to be significant. This means that hypothesis one which states that there is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria is not accepted. Inference drawn therefore is that there is a significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria.

Table 6: Sheffe's Post Hoc test of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria.

| (I) University Name | (J) University Name | Mean Difference (I-J) | Std. Error | Sig. |
|---|---|---|---|---|
| University of Uyo | University of Calabar | .12505 | .06141 | 0.24 |
| | CRUTECH | .13959 | .05614 | 0.10 |
| | Akwa-Ibom State University | .33554* | .05560 | 0.00 |
| University of Calabar | University of Uyo | -.12505 | .06141 | 0.24 |
| | CRUTECH | .01455 | .05964 | 0.99 |
| | Akwa-Ibom State University | .21049* | .05914 | 0.00 |
| CRUTECH | University of Uyo | -.13959 | .05614 | 0.10 |
| | University of Calabar | -.01455 | .05964 | 0.99 |
| | Akwa-Ibom State University | .19594* | .05364 | 0.00 |

Result in Table 6 shows the Post Hoc analysis of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria. Result shows that the significant difference exist between Akwa-Ibom State University and the remaining three universities. This is because the significant values are less than 0.05 level of significance for testing the hypothesis. However, difference does not exist between the other three universities (University of Calabar, University of Uyo and CRUTECH).

Hypothesis 2

There is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records storage skills by Record Personnel in Universities in South-South Nigeria.

Table 7: Analysis of Variance (ANOVA) of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records storage skills by records personnel in Universities in South-South Nigeria.

| | Sum of Squares | Df | Mean Square | F | Sig. | Remarks |
|---|---|---|---|---|---|---|
| Between Groups | 2.688 | 3 | .896 | | | |
| Within Groups | 66.298 | 423 | .157 | | | |
| Total | 68.985 | 426 | | | | |

Data in table 7 shows the ANOVA result of the significant difference in the mean ratings of the respondents from four universities with respect to the extent of possession and utilization of electronic records storage skills by records personnel in Universities in

South-South Nigeria. Result shows that an f-ratio of 5.716 was obtain with a probability value of 0.00. This probability value was compared with 0.05 set as level of significance and it was found to be significant. This means that hypothesis two which stated that there is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records storage skills by records personnel in Universities in South-South Nigeria is rejected. Inference drawn therefore is that there is a significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records storage skills by records personnel in Universities in South-South Nigeria.

Table 8: Sheffe's Post Hoc test of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records Storage skills by records personnel in Universities in South-South Nigeria.

| (I) University Name | (J) University Name | Mean Difference (I-J) | Std. Error | Sig. |
|---|---|---|---|---|
| University of Uyo | University of Calabar | .06685 | .05840 | 0.72 |
| | CRUTECH | -.02455 | .05338 | 0.97 |
| | Akwa-Ibom State University | .16968* | .05288 | 0.01 |
| University of Calabar | University of Uyo | -.06685 | .05840 | 0.72 |
| | CRUTECH | -.09140 | .05671 | 0.45 |
| | Akwa-Ibom State University | .10283 | .05624 | 0.34 |
| CRUTECH | University of Uyo | .02455 | .05338 | 0.97 |
| | University of Calabar | .09140 | .05671 | 0.45 |
| | Akwa-Ibom State University | .19423* | .05101 | 0.00 |

Result in Table 8 shows the Post Hoc analysis of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records storage skills by records personnel in Universities in South-South Nigeria. Result shows that the significant difference exists between Akwa-Ibom State University and University of Uyo, and Akwa-Ibom State University and CRUTECH. This is because the significant values are less than 0.05 level of significance for testing the hypothesis. However, difference does not exist between University of Calabar and the other universities.

Hypothesis 3

There is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records electronic records retrieval skills by Records Personnel in Universities in South-South Nigeria.

Table 9: ANOVA of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records retrieval skills by records personnel in Universities in South-South Nigeria.

| | Sum of Squares | df | Mean Square | F | Sig. | Remarks |
|---|---|---|---|---|---|---|
| Between Groups | 5.187 | 3 | 1.729 | 6.837 | 0.00 | S |
| Within Groups | 106.983 | 423 | .253 | | | |
| Total | 112.170 | 426 | | | | |

Data in Table 9 shows the ANOVA result of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records retrieval skills by records personnel in Universities in South-South Nigeria. Result shows that an f-ratio of 6.837 was obtain with a probability value of 0.00. This probability value was compared with 0.05 set as level of significance and it was found to be significant. This means that hypothesis three which states that there is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records retrieval skills by records personnel in Universities in South-South Nigeria is not accepted. It is inferred therefore that there is a significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records retrieval skills by records personnel in Universities in South-South Nigeria.

Table 10: Sheffe's Post Hoc test of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records
Retrieval skills by records personnel in Universities in South-South Nigeria.

| (I) University Name | (J) University Name | Mean Difference (I-J) | Std. Error | Sig. |
|---|---|---|---|---|
| University of Uyo | University of Calabar | -.10974 | .07418 | 0.53 |
| | CRUTECH | -.05892 | .06781 | 0.86 |
| | Akwa-Ibom State University | .17702 | .06717 | 0.07 |
| University of Calabar | University of Uyo | .10974 | .07418 | 0.53 |
| | CRUTECH | .05082 | .07205 | 0.91 |
| | Akwa-Ibom State University | .28676* | .07144 | 0.00 |
| Akwa-Ibom State University | University of Uyo | .23594* | .06480 | 0.00 |
| | University of Calabar | .05892 | .06781 | 0.86 |
| CRUTECH | University of Calabar | -.05082 | .07205 | 0.91 |

Result in Table 10 shows the Post Hoc analysis of the significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records retrieval skills by records personnel in Universities in South-South Nigeria. Result shows that the significant difference exists between Akwa-Ibom State University and University of Calabar and Akwa-Ibom State University and CRUTECH.

This is because the significant values are less than 0.05 level of significance for testing the hypothesis. On the other hand, difference does not exist between University of Uyo and the other three universities.

Hypothesis 4

There is no significant difference in the mean ratings of Records staff, Data entry staff and Portal staff in the four universities with respect to the extent of possession and utilization of electronic records electronic records migration skills by Records Personnel in Universities in South-South Nigeria.

Table 11: ANOVA of the significant difference in the mean ratings of Record staff, Data entry staff and Portal staff with respect to the extent of possession and utilization of electronic records migration skills by records personnel in Universities in South-South Nigeria.

| | Sum of Squares | df | Mean Square | F | Sig. | Remarks |
|---|---|---|---|---|---|---|
| Between Groups | .912 | 2 | 0.456 | 1.739 | 0.18 | NS |
| Within Groups | 111.193 | 424 | 0.262 | | | |
| Total | 112.105 | 426 | | | | |

Data in table 11 shows the ANOVA result of the significant difference in the mean ratings of Record staff, Data entry staff and Portal staff in the four universities with respect to the extent of possession and utilization of electronic records migration skills by records personnel in Universities in South-South Nigeria. Result shows that an f-ratio of 1.739 was obtained with a probability value of 0.18. This probability value was compared with 0.05 set as level of significance and it was found not to be significant because 0.18 is greater than 0.05. This means that hypothesis four which states that there is no significant difference in the mean ratings of Record staff, Data entry staff and Portal staff in the four universities with respect to the extent of possession and utilization of electronic records migration skills by Records Personnel in Universities in South-South Nigeria is upheld. Inference drawn therefore is that there is no significant difference in the mean ratings of Record staff, Data entry staff and Portal staff in the four universities with respect to the extent of possession and utilization of electronic records migration skills by Records Personnel in Universities in South-South Nigeria. This also means that the respondents in the four universities share the same view on the extent of possession and utilization of electronic records migration skills.

Discussion of the Findings

The findings of this study are discussed in accordance with the research questions and hypotheses of study as follows:

Possession and Utilization of Electronic Records Creation Skills

The findings of the study reveal that 4 out 20 electronic records skills are possessed and utilized to some extent by Records Personnel in Universities in South-South Nigeria. These skills are: Document e-records title( $\bar{}_p$ = 3.11 for possession and $\bar{}_u$ = 2.85 for

utilization); Scan document/e-record into record keeping system ( $\bar{}_p$ =2.50 for possession and $\bar{}_u$ = 2.47 for utilization),Create database ($\bar{}_p$ = 2.55 for possession and $\bar{}_u$ = 2.52 for utilization) and Create records in database$\bar{\bar{}}$ = 2.52 for possession and $\bar{}_u$ = 2.51for utilization). The findings further reveal that 14 skills items are possessed and utilized to a little extent by records personnel in Universities in South-South Nigeria. These skills include: Identify e-records that need to be created within the university business transaction process ($\bar{}_p$ = 2.22 for possession and $\bar{}_u$= 2.10 for utilization), Create e-records folder structure with different levels of transaction ($\bar{}_p$ = 2.47 for possession and $\bar{}_u$ = 2.35 for utilization), Select e-records elements orderly$\bar{}_p$ = 2.38 for possession and$\bar{}_u$ = 2. 31 for utilization), Create and complete form electronically$\bar{}_p$ = 2.48 = 2.43 for utilization), Use image processing system to create website$\bar{}_p$ = 2.43 for possession and$\bar{}_u$ = 2.30 for utilization), Associate metadata with the content of e-records ($\bar{}_p$ = 2.34 for possession and $\bar{}_u$ = 2.28 for utilization), Assign unique identifiers to e-records that will remain permanent or unchanged over time ($\bar{}_p$ = 2.22 for possession and $\bar{}_u$ = 2.21 for utilization), Assign unique identifiers to e-records that will remain permanent or unchanged over time ($\bar{}_p$ = 2.22 for possession and $\bar{}_u$ = 2.21), Capture e-record into trusted recordkeeping repository that maintains records integrity ($\bar{}_p$= 2.45 for possession and $\bar{}_u$ =2.42), Apply security access control during process of e-record creation ($\bar{}_p$= 2.48 for possession and $\bar{}_u$ =2.44 for utilization), Draw elements of metadata to create metadata profile for e-record ($\bar{}_p$ = 1.58 for possession and $\bar{}_u$ =1.46 for utilization),Create relationship to control the selection of metadata ($\bar{}_p$ = 2.43 for possession and $\bar{}_u$ = 2.32for utilization), Manage database ($\bar{}_p$ = 2.36 and $\bar{}_u$ = 2.31for utilization), and Create e-records using digital image system to impute data ($\bar{}_p$ = 2.46 for possession and $\bar{}_u$ = 2.46 for utilization). Two of the skill items are utilized to a very little extent. The skill include: Assess the authenticity, completeness and usability of e-records ($\bar{}_p$ =1.26 for possession and $\bar{}_u$ = 1.21 for utilization); and Validate metadata classification scheme ($\bar{}_p$ = 1.42 for possession and $\bar{}_u$ =1.36 for utilization). The findings reveal a cluster mean of 2.29for possession and 2.28for utilization. This is an indication that Records Personnel in the universities studied possess and utilize e-records creation skills, but to a little extent.

These findings lend support to the view of Michael (2004) who said that the principal tools used in electronic records creation involves the creation of folders and documents titles, link folders and title document and select e-records element orderly. Furthermore, the findings corroborate Osuala (2009) who identified scanning skill as involving ability to capture text, documents, receipts, posters, certificates and convert them into electronic version (e-records). Osuala further stressed that the ability to use Microsoft word process tool enables the users (records Personnel) to create electronic records. Similarly, O"Brien and Marakas (2010), asserted that e-records creation involves capturing and processing documents, inputting data into database. This involves the creating a database, creating e-records in database. The findings agree with Ezeali and Ewulonu (2011) who stated that e-records creation involves the ability to determine the forms utilized to create evidence of transaction. Contrarily, the little extent of possession and utilization of e-records creation skills is at variance with Dooley (2004) who stressed that familiarity with digital imaging techniques is a very important skill in e-records creation. However, the findings reveal that the extent of possession and utilization of electronic records creation skills by Records Personnel in the study area is not as expected.

This could be attributable to the fact that the records personnel might have been employed originally for managing records with the traditional method.

It is obvious from the foregoing, therefore, that transition to the electronic records has not been fully achieved. Although the universities have imbibed electronic culture, they still maintain some of their records in files and cabinets. The resultant effect is that records are duplicated and this is cost intensive. Moreover, duplicated records result in data redundancy as pointed out by Ibezim (2006)

In view of the fact that in today"s contemporary society and in the universities in particular, the extent to which the transactions of the institution is electronically mediated has become a global standard, there is need for Records personnel to possess the skills to perform their tasks, to a great extent, with high level of proficiency in an electronic environment. This will place the university in high pedestal through efficient management of electronic records. Thus the benefit to the university and the global community is that activities of the university will be more visible globally, irrespective of location; and task accomplishment more efficient as authentic and reliable e-records are created. This is in agreement with International Records Management Trust – IRMT (2009) which stated that institutional activities can be accomplished in an efficient manner when records are created electronically to provide needed information. The implication of this is that constant updating of skills is required to align records personnel with the level of proficiency required to effectively create records in electronic format.

The result of the analysis of variance (ANOVA) in respect of hypothesis one shows that there is a significant difference in the mean ratings of the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria. Result shows that an f-ratio of 12.651 was obtained with a probability value of 0.00. This probability value was compared with 0.05 set as level of significance and it was found to be significant. This means that hypothesis one which stated that there is no significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria is not accepted. Inference drawn therefore is that there is a significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records creation skills by records personnel in Universities in South-South Nigeria

Extent of Possession and Utilization of Electronic Records Storage Skills by Records Personnel

The findings from the study indicate that Records Personnel possess and utilize to a great extent only one out of 25 skill items on e-records storage. This skill item possessed and utilized to a great extent is: Update e-record from external storage device ($\bar{}_{p}$=3.56 for possession and $\bar{}_{u}$ = 3.52 for utilization). The finding lends credence to Floyd (2004) who said that external storage devices such as removable flash drives, CD-Rewritable disk etc could be used for storing e-records which could be updated. This finding in the view of the researcher could be attributable to the fact that these external storage devices are easy to use, portable and affordable.

The findings also reveal that Records Personnel possess and utilize to some extent only one out of 25 skill items on e-records storage. This skill item possessed and utilized to some extent is:Add or modify e-record upon authorization ($\bar{}_p$= 3.33 for possession and $\bar{}_u$ = 3.22 for utilization). The finding is in conformity with IRMT (2009) which provides that stored e-record should be modified only by authorization. The findings further reveal that 20 out of 25 skill items in e-records storage cluster are possessed and utilized to a little extent by Records Personnel. These skill items include: Save e-records appropriately in networked system ($\bar{}_p$= 2.46 and $\bar{}_u$ = 2.25); save e-record not in active or regular use in offline storage device ($\bar{}_p$= 2.12 for possession and $\bar{}_u$ = 2.10); Appraise stored records regularly to identify and transfer inactive records ($\bar{}_p$= 2.48 for possession and $\bar{}_u$ = 2.42 for utilization); apply comprehensive and up-to-date strategies for stored e-record ($\bar{}_p$= 1.52 for possession and $\bar{}_u$ = 1.50 for utilization); Carry out regular test of computer and other e-records storage system to ensure prevention from system malfunction ($\bar{}_p$= 2.41for possession and $\bar{}_u$ = 2.39 for utilization); Store e-records in formats that ensure long term preservation and access($\bar{}_p$= 2.23 for possession and $\bar{}_u$ = 2.16 for utilization); Store e-records in reliable storage device ($\bar{}_p$= 2.43 for possession and $\bar{}_u$ = 2.32 for utilization); Store e-records in database ($\bar{}_p$= 2.24 for possession and $\bar{}_u$ = 2.13 for utilization); Store e-records in formats that ensures long term preservation ($\bar{}_p$= 2.38 for possession and $\bar{}_u$ = 2.32 for utilization); Store e-records in usable format ($\bar{}_p$= 2.36 for possession and $\bar{}_u$ = 2.33 for utilization); Convert e-record to portable document file (PDF) for storage ($\bar{}_p$= 2.43 for possession and $\bar{}_u$ = 2.49 for utilization); Document and store e-record accurately, preserving the authenticity of the e-records ($\bar{}_p$= 2.26 for possession and $\bar{}_u$ = 1.54 for utilization); Maintain links to records when adding metadata about e-records ($\bar{}_p$= 2.36 for possession and $\bar{}_u$ = 2.34 for utilization); Delete or modify a classification scheme component of e-records by authorized personnel ($\bar{}_p$= 2.22 for possession and $\bar{}_u$ = 2.20 for utilization); Track the location of e-record ($\bar{}_p$ = 2.34 for possession and $\bar{}_u$ = 2.68 for utilization); Update file code ($\bar{}_p$= 2.29 for possession and $\bar{}_u$ = 2.24 for utilization); Monitor changes that require e-record update ($\bar{}_p$= 2.28 for possession and $\bar{}_u$ = 2.21 for utilization); Software capability analysis skill ($\bar{}_p$= 1.56 for possession and $\bar{}_u$ = 1.42. Back-up server creation skills ($\bar{}_p$= 2.31 for possession and $\bar{}_u$ = 2.29 for utilization).

On the other hand, three out of 25 skill items are possessed and utilized to a very little extent while five of the skill items listed are utilized to a very little extent . The skill items that are possessed and utilized to a very little extent are: Ability to appraise e-records in line with university e-record policy ($\bar{}_p$= 1.48 for possession and $\bar{}_u$ =1.28 for utilization); Update records from back-up server ($\bar{}_p$= 1.32 for possession and $\bar{}_u$ = 1.20 for utilization); Update e-record software ($\bar{}_p$= 1.48 for possession and $\bar{}_u$ = 1.38 for utilization).The Cluster mean of 2.26 for extent of possession and 2.16 for extent of utilization is an indication that the extent of possession of electronic records storage skill is to some extent and the extent of utilization of electronic records storage skill is to a little extent.

The findings are at variance with Osuala, (2009), O"Brien and Marakas (2010 ) who identified ability to utilize database management tool for e-records storage. Furthermore, the findings contradict Dooley, (2014) who maintained that ability to select appropriate software for long-term storage of e-records is very essential. In the same vein,

these findings contradict the assertion of Idiku (2014) who said that the State (study area) has the history of the first State to digitize her information dissemination process.

The result of ANOVA of the hypothesis tested showed a significant difference in the mean ratings of the respondents in the four universities with respect to the extent of possession and utilization of electronic records storage skills. A post hoc test carried out revealed that significant difference exists between Akwa Ibom University and University of Uyo, Akwa Ibom State University and Cross River University of Technology. These findings indicate that Records personnel possessed and utilized e-records storage skills below expectation. The implication of these findings is that Records Personnel cannot utilize the skill beyond the extent to which they possess the skill. Storage of e-records is so vital and should be jealously guarded. Therefore, there is need for them to improve on their skill level to efficiently store e-records and preserve evidence of the university transactions in electronic format.

Extent of Possession and Utilization of Electronic Records Retrieval Skills by Records Personnel

The findings of the study indicate that Records Personnel possess and utilize to a great extent four out of 14 skill items listed as e-records retrieval skills. These skills are: Retrieve and list e-record with metadata tool($\bar{}_p$ = 3.54for possession and $\bar{}_u$ =3.51for utilization); Retrieve e-records by naming principle supported by the system($\bar{}_p$= 3.56 for possession and $\bar{}_u$ = 3.54 for utilization); Locate e-records with appropriate search format, i.e. name, file no., date etc($\bar{}_p$=3.52 for possession and $\bar{}_u$ = 2.47 for utilization); Retrieve e-records with Computer Assisted Retrieval (CAR)($\bar{}_p$=3.58 for possession and $\bar{}_u$ = 3.54 for utilization);These findings are in agreement with Osuala (2009) who pointed out that e-records retrieval can be enhanced through the use of appropriate search format. The findings are also in line with TSALC (2011) that ability to use computer assisted retrieval (CAR) software facilitates e-records retrieval with accompanying pointer to e-record location or by unique records identifier. Similarly, the findings support Eramo (2014) who maintained that e-records retrieval is not just about where the record resides; it also requires knowledge/skills in identifying records attributes that provide the evidential values of such e-record. Also, the findings are in consonance with Dooley (2014) who posited that those who work with record should be familiar with retrieval of e-records with their meta data elements.

The findings further revealed that Records Personnel possess and utilize to some extent five out of the 14 e-retrieval skills listed. These skills include the following: Retrieve and list e-record and associated metadata by their unique identifier($\bar{}_p$ = 3.35for possession and $\bar{}_u$ = 2.26for utilization); Retrieve e-records by naming principle supported by the system($\bar{}_p$ = 2.44 for possession and $\bar{}_u$ = 3.54for utilization);Retrieve earlier version of e-record($\bar{}_p$= 2.54 for possession and $\bar{}_u$ = 2.52 for utilization); Display e-records in a way that accurately renders their original presentation and content($\bar{}_p$= 3.26for possession and $\bar{}_u$ = 3.22 for utilization); Display e-records in a way that can be easily understood($\bar{}_p$= 2.52 for possession and $\bar{}_u$ = 2.50 for utilization); Bring forward e-records that can be sent to user on specified date($\bar{}_p$= 3.41for possession and $\bar{}_u$ = 3.41for utilization). These findings are at variance with the view of Kennedy (2012) who stated that records personnel should be able to use version control to retrieve earlier version of e-records, and automatically update and bring forward e-records that is needed for immediate use.

The findings also reveal that records personnel possess and utilize to a little extent three out of 14 skills listed for e-records retrieval. These are: Display e-record with their associated metadata on request($\bar{}_p$=2.16 possession and $\bar{}_u$ = 2.10 for utilization); Manage version control of e-records to avoid retrieval of wrong version($\bar{}_p$= 2.46for possession and $\bar{}_u$ = 2.40 for utilization); Retrieve e-record from dbase using appropriate query language($\bar{}_p$= 2.38 for possession and $\bar{}_u$ = 2.28 for utilization). On the other hand, the findings show that two out of 14 skill items are possessed and utilized by records personnel to a very little extent. These skills are: Checking in and checking out e-records in a way that permits viewing e-records and prevent modification by other users($\bar{}_p$= 1.40 for possession and $\bar{}_u$ = 1.34 for utilization); Automatically calculate recall data for charge outs of e-records ($\bar{}_p$= 1.48 for possession and $\bar{}_u$ = 1.42 for utilization). The findings indicate a cluster mean of 2.69 for extent of possession and 2.43 for extent of utilization of e-records retrieval skills indicating that records personnel possess and utilize e-records retrieval skills to a little extent.

These findings are in disagreement with O"Brien and Marakas (2010) who said that ability to use database management feature (query language) facilitates retrieval of e-records from database. According to O"Brien and Marakas, database management approach serves as a foundation of modern methods of managing institutional records. This helps users to easily access and retrieve records in the database. Records personnel therefore require some training in the use of database management packages such as Microsoft Access, Lotus Approach or Corel Paradox to enable them efficiently utilize database features in e-records retrieval.

The result of the Analysis of Variance (ANOVA) that tested the hypothesis 3 revealed a significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records retrieval skills by records personnel in Universities in South-South Nigeria. Inference drawn therefore is that there is a significant difference in the mean ratings of Records Personnel in the four universities with respect to the extent of possession and utilization of electronic records retrieval skills by records personnel.

A post hoc test was carried out to determine where the difference exists. The result of the post hoc test shows that the significant difference exists between Akwa-Ibom State University and University of Calabar, and Akwa-Ibom state university and CRUTECH, This is because the significant values are less than 0.05 level of significance for testing the hypothesis. However, difference does not exist between University of Uyo and the other three universities.

The researcher is of the opinion that training in database management should not be restricted to those who work in the Directorate of Information and Communication Technology only, but should be extended to all records staff as well, since they handle the bulk of records in their various units, departments and faculties.

Extent of Possession and Utilization of Electronic Records Migration Skills

The findings of the study reveal that out of 12 items of e-records migration skills listed, Records Personnel possess and utilize only one of the skills to a great extent, that is: Document migration action($\bar{}_p$= 3.56 for possession and $\bar{}_u$ = 3.52 for utilization). Findings also show that Records Personnel possess and utilize to some extent one skill which is:

Export e-record to other software organization for migration($\bar{}_p$= 2.60 for possession and $\bar{}_u$ = 2.34 for utilization). They possess and utilize to a little extent seven out the 12 skills. These are: Determine the target system for migrating the record($\bar{}_p$= 2.43 for possession and $\bar{}_u$ = 2.40 for utilization); Convert e-records to migratable software($\bar{}_p$= 2.38 for possession and $\bar{}_u$ = 2.35 for utilization); Import e-record from other software/organization($\bar{}_p$= 2.23 for possession and $\bar{}_u$ = 2.22 for utilization); Relocate records from one hardware/software to another($\bar{}_p$ = 2.45 for possession and $\bar{}_u$ = 2.30 for utilization); Select appropriate meta recordkeeping($\bar{}_p$= 2.44 for possession and $\bar{}_u$ = 2.42 for utilization); Determine the destination of the e-records to be migrated($\bar{}_p$ = 1.52 for possession and $\bar{}_u$ = 1.48 for utilization). The cluster mean of 2.16 was obtained for extent of possession and 2.09 for extent of utilization. The findings from the study indicate that records personnel utilize the skills listed to a little extent.

The findings contradict the International Council on Archives (2008) which prescribed ability to import and export e-records and interoperability with other systems. The findings also disagree with the Queensland State Archives (2012) outlined the skills involved in electronic records migration to include identifying records to be migrated, selecting recordkeeping meta data, preparing e-records for migration, establishing retention obligations among others.

Migration involves a set of organized tasks designed periodic transfer of e-records from one hardware to another. It is designed to periodically transfer digital materials from one hardware configuration to another or from one generation of technology to another to safeguard retention obsolescence.. This means that e-records maintained in electronic recordkeeping system should necessarily be moved to another system when there is a change of system or system update without losing any or part of the records. It therefore means that records personnel should be able to convert e-records to a migratable software that will enhance transfer or migration to another hardware while maintaining the authenticity, integrity and reliability of the e-records .

However, the findings of the study revealed that records personnel possess and utilize the skills to some extent, whereas it is expected that they should possess and utilize the skills to a great extent. The reason for this phenomenon may be due to the fact that records personnel in those institutions are not constantly exposed to training that will equip them with the skills they will utilize to perform their tasks independently. This is important because technology is always evolving and to keep abreast with technological innovations, there is need for constant updating of the existing technology to preserve the e-records throughout the records life cycle. In order to achieve the preservation of e-records beyond the life span of the technology in which the e-record reside, Records Personnel need to transfer or move the e-records from the hardware or software that becomes obsolete due to constant technological obsolescence. The implication is that vital records which should serve as collective memory of the institution and provide evidential value could be lost through technological obsolescence if effective migration is not carried out periodically.

Furthermore, a test of hypothesis using analysis of variance (ANOVA) revealed a significant difference in the mean ratings of records personnel in the four universities surveyed with respect to the extent of possession and utilization of electronic records migration skills. A Sheffe‟s post hoc test carried out revealed that significant difference

exists between Akwa Ibom State University and University of Calabar, between Akwa Ibom State University and Cross River University of Technology.

## Conclusion

Based on the findings of this, the extent of possession and utilization of electronic records management skill by records personnel in federal and state universities in Cross River and Akwa Ibom States located in South-South Nigeria is low (to a little extent) in areas of creation, storage, retrieval, migration The low extent of possession and utilization of these e-records skills might have been due to lack of, or inadequate formal training programme for records personnel in those institutions. This might have resulted in the slow adoption of full transition from manual records management practices in those institutions. It is imperative, therefore, that in the university as a citadel of learning, records personnel should be, to a great extent, conversant with electronic-driven procedures in the performance of their tasks. This will align the university with global best practices in service delivery.

## Recommendation

Based on the findings, it is recommended that:

1. Records staff should be given orientation on programme on electronic records creation, storage, retrieval and migration.
2. Skill training module should developed to guide records staff on transition from manual records to electronic records management.
3. Universities should develop a robust capacity building prgramme for records staff.
4. Universities should adopt blended approach to records management to ease transition to e-records management.

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