

## EXTENT OF ADOPTION OF ELECTRONIC RECORDS PROCESSING PRACTICES IN POLYTECHNICS IN EDO AND DELTA STATES

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### Abstract

Nigerian tertiary institutions seem to have embraced electronic record-keeping procedures in order to make records available at the right time and at the right place but the extent to which secretaries of polytechnics in Edo and Delta States have adopted electronic record processing practices is not empirically known. In order to execute this study, one research question was raised and two null hypotheses were tested at 0.05 level of significance. The study adopted the descriptive survey design. Population of 188 secretaries in polytechnics in the two states were used for the study without sampling and the size was not too large. A validated questionnaire by experts was used for data collection. Cronbach alpha method was used to establish the reliability of the instrument which yielded coefficients of 0.75. Mean and standard deviation were used to answer the research question and determine the homogeneity of respondents' means while t-test was used to test the hypotheses at 0.05 level of significance. The findings of the study revealed that electronic records processing practices were adopted in managing records in polytechnics in Edo and Delta States to a high extent. The findings also revealed that secretaries do not differ significantly in their mean ratings on their extent of adoption of electronic records processing practices in managing records in their institutions as a result of gender and years of working experience. The study concluded that secretaries in polytechnics in Edo and Delta States need further retraining exercises to enable them acquire new digital skills that will facilitate the art of utilizing modern electronic records processing activities for effective and efficient management of records. It was recommended among others that polytechnics should ensure that adequate, functional and modern facilities are available for secretaries and administrative staffs to enable them perform electronic record processing practices effectively and efficiently.

**Keywords:** Records, record management, electronic records processing practices

### Introduction

Records are documents that provide information about the past or present activities of an individual, group or organization. According to Nnaji (2010), records are documentary evidences of transactions made or received in pursuance of legal obligations regardless of the physical form or characteristics of the media. Records can be in form of inward correspondence, reports, inventory, estimate and notes, tangible objects or digital information. Since records are at the heart of an organization operations, they require effective and efficient management.

Records management refer to the way official and non-official records are systematically and meaningfully organized for continuous usage. Elendu and Elendu (2010) defined record

management as the creation, supervision and control of records to ensure that the system works satisfactorily. It is aimed at preparing, arranging and keeping records in the most convenient manner so that they can easily be located when required. During the past decades, the record keeping practices in both public and private organizations including educational institutions have been revolutionized due to the enlargement of organizational activities and inter-connectivity of modern office management systems. Looking at the Nigerian society, academic institutions seem to have become bigger, more complex and inter-connected in nature that the predominant traditional record management system with its cumbersome mechanisms seem to be insufficient.

The traditional record management system of filing, classifying, securing, dispatching and in some cases, archival presentation and other data processing activities are becoming inadequate for handling information networks needs in today's contemporary academic sector. Various higher institutions including polytechnics in Nigeria are now moving from the traditional to electronic record management systems. According to Kamatula (2010), electronic records are computer-based or digital records created by use of electronic technologies. Organizations use electronic record management systems to manage the creation, use, maintenance and disposal of records created electronically for the purpose of providing evidence of organizational activities (McLeod, 2010). Duranti (2010) defined electronic records management system as computer systems used for the management of electronic and non-electronic records contained in an information technology using computer hardware and software. According to Franks (2013), electronic records management consist of software, hardware, policies and processes that automate the organization, regulate the use, maintenance and dissemination of records regardless of media.

The adoption of electronic records in organizations demand the use of electronic records processing practices. Effy (2012) explained that electronic records processing practices primarily involve the use of a software based methodology to manage all organizational records, regardless of the format over the entire records life cycle. Electronic record processing practices cover activities involved in the creation and preparation of office documents such as using a word processor to enter and edit texts accurately; manipulate information; using spreadsheet application to organize and analyze data into lists and tables, preview, print and save documents among others. The essence of electronic records processing or creation is to make sure that only user-required records are reproduced by the organisation. Muhenda and Lwanga (2012) posited that electronic record processing practices are majorly required in preparing letters, memo, circular, reports and similar documents in every office.

The category of staff who are saddled with the task of maintain electronic records processing in tertiary institutions are male and female secretaries with different years of experience. These differences seem to influence the extent to which they adopt various electronic records management practices. However, the extent to which electronic records processing practices are adopted by secretaries in polytechnics in Edo and Delta States has remained uncertain as there is no empirical evidence for it. Therefore, it becomes imperative to conduct this study on extent of adoption of electronic records processing practices in polytechnics in Edo and Delta States to provide empirical evidence for objective actions by stakeholders.

### **Statement of the Problem**

The traditional approach to records management system adopted in higher institutions for ages was described by Adeyemi (2008) as "high data redundancy" that wastes space,

money and is very ineffective and inefficient to the point that students' records and academic results often get lost. It is very common for secretaries and students to search for documents or files containing confidential matters in the wrong office or office cabinets. The resultant effect is that the affected students of the misplaced documents may be prevented or delayed from moving to the next academic level or even graduate due to the inflexible nature of traditional records management system in the institutions. The penetration and acceptance of Information Communication and Technologies in Nigerian educational systems has motivated tertiary institutions to embrace electronic record-keeping practices. However, the extent of adoption of electronic records management practices by secretaries in polytechnics in Edo and Delta States is not clearly known. It is this gap in knowledge that this study sought to fill.

### **Purpose of the Study**

The study sought to determine the extent to which secretaries in polytechnics in Edo and Delta States adopt electronic records processing practices in managing records

### **Research Question**

One research question guided the study, thus

1. To what extent do secretaries in polytechnics in Edo and Delta States adopt electronic records processing practices in managing records?

### **Hypotheses**

The following hypotheses were tested at 0.05 level of significance

1. Male and female secretaries do not differ significantly in their mean ratings on their extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States
2. Secretaries do not differ significantly in their mean ratings on their extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States as a result of years of working experience (1 – 10 years, 11 years & above)

### **Method**

This study adopted a descriptive survey design. This study was carried out in Edo and Delta States which are part of the south-south zone in Nigeria. The population of 188 secretaries in polytechnics in Edo and Delta States was studied without sampling because the size was manageable. A structured questionnaire titled "Adoption of Electronic Records Processing Practices Questionnaire (AERPPQ)" was used for data collection. The questionnaire contained 14 items and structured on a 5-point rating scale of Very High Extent (VHE), High Extent (HE), Moderate Extent (FE), Low Extent (LE) and Very Low Extent (VLE). The questionnaire was validated by three experts, two experts from Business Education programme, Department of Technology and Vocational Education and another from Measurement and Evaluation Unit in Department of Educational Foundations, all in the Faculty of Education, Nnamdi Azikiwe University Awka. A pilot test was conducted to establish the reliability of the questionnaire by administering it to 20 secretaries from polytechnics in Bayelsa State which were not part of the study and Cronbach Alpha was used to measure the internal consistency which yielded an

overall reliability co-efficient of 0.75. Copies of the questionnaire were distributed personally to the secretaries involved in the study with the help of three research assistants drawn from the polytechnics in the area of the study. Mean and standard deviation were used to analyze data relative to the research question as well as determine the homogeneity of the respondents' ratings. The t-test statistical tool was used to test the null hypotheses at 0.05 level of significance. A hypothesis was accepted where the p-value is equal to or greater than the alpha level of 0.05 ( $p > 0.05$ ) at a degree of freedom, otherwise, the null hypothesis was rejected. The analysis was carried out using SPSS version 23.0.

**Result**

**Research Question 1:** To what extent do secretaries in polytechnics in Edo and Delta States adopt electronic records processing practices in managing records?

**Table 1: Mean Rating and Standard Deviation of Secretaries on Record Processing Practices**

S/N	Items	Mean	SD	Remark
1	Using of a word processor to enter and edit text and images	3.56	0.25	High Extent
2	Using word processor to format to text and control margin	3.51	0.27	High Extent
3	Creating attractive layouts and table using a word processor	3.75	0.88	High Extent
4	Printing and retrieving document via word processor	3.52	0.34	High Extent
5	Creating and organizing computer files and folders in window environment	3.84	0.33	High Extent
6	Use of Microsoft Access for file creation of management reports	3.98	0.41	High Extent
7	Use of spreadsheet to enter Data	4.42	0.30	High Extent
8	Use of spreadsheet to format cells into tables	4.39	1.21	High Extent
9	Inserting pictures and symbols into a document with correct margin and layouts	4.47	0.38	High Extent
10	Changing font type, style and size of a text	3.84	0.30	High Extent
11	Using Word Art to create and shape text	4.20	0.43	High Extent
12	Keying-in text speedily and accurately paginating documents	3.88	0.51	High Extent High Extent
13	Applying suitable formats to types of documents	4.39	1.11	
14	Previewing and printing documents	3.75	0.98	High Extent
	<b>Cluster Mean</b>	<b>3.96</b>	<b>0.55</b>	High Extent

Data in Table 1 shows that all the items with mean ratings ranging from 3.51 to 4.47 were adopted by respondents to a high extent. The cluster mean of 3.96 indicates that secretaries adopted record processing practices in managing records in polytechnics in Edo and Delta States

to a high extent. The range of standard deviation (0.25 – 1.21) revealed that the respondents are not far apart in their ratings. This therefore means that secretaries adopt electronic record processing practices to a high extent in managing records in polytechnics in Edo and Delta States.

**Hypothesis 1:** Male and female secretaries do not differ significantly in their mean ratings on their extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States

**Table 2: Summary of t-test analysis of male and female secretaries mean ratings on the extent of adoption of electronic records processing practices in managing record**

S/N	Item Statement	Male		Female		t-cal	Sig.	Decision
		X <sub>1</sub>	SD <sub>1</sub>	X <sub>2</sub>	SD <sub>2</sub>			
1	Using of a word processor to enter and edit text and images	3.72	.27	4.01	.59	1.73	.28	NS
2	Using word processor to format text and control margin	4.13	.35	3.86	.22	1.45	.14	NS
3	Creating attractive layouts and table using a word processor	4.01	.51	3.84	.76	1.06	.57	NS
4	Printing and retrieving document via word processor	3.93	.19	4.01	.40	.88	.10	NS
5	Creating and organizing computer files and folders in window environment	4.22	.47	3.85	.26	1.41	.23	NS
6	Use of Microsoft Access for file creation of management reports	2.98	.53	3.31	.71	1.19	.60	NS
7	Use of spreadsheet to enter data	3.22	.82	3.83	.56	1.19	.60	NS
8	Use of spreadsheet to format cells into tables	3.53	.46	2.27	.79	2.21	.01	S
9	Inserting pictures and symbols into a document with correct margin and layouts	2.75	.31	2.90	.48	3.55	.00	S
10	Changing font type, style and size of a text	4.22	.50	4.04	.36	1.63	.47	NS
11	Using Word Art to create and shape text	4.06	.18	3.90	.31	.90	.13	NS
12	Keying-in text speedily and accurately paginating documents	4.29	.72	3.85	.63	.18	.26	NS
13	Applying suitable format to types of documents	3.65	.40	4.02	.71	1.46	.54	NS
14	Previewing and printing	2.92	.29	3.16	.48	1.09	.77	NS

documents

**Key:**  $X_1$ = Mean of male secretaries;  $X_2$ = Mean of female secretaries;  $SD_1$ = Standard Deviation of male secretaries;  $SD_2$ = Standard Deviation of female secretaries); **Sig.** = probability value; **t-cal**= calculated values; **S**= significant; **NS**= Not Significant; **df** = 134

Data in Table 2 presents the summary of mean ratings of secretaries on the extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States based on their gender. The data revealed that two items with p-values of .00 and .01 are less than the significant value of 0.05 at 134 degree of freedom. This indicates that there is significant difference in the mean ratings of secretaries on the extent of adoption of electronic records processing practices in managing records in polytechnics based on their gender. Therefore, the hypothesis of no significant difference in the mean ratings of secretaries on items 8 and 9 were rejected. On the other hand, hypothesis of no significant difference for items 1, 2, 3, 4, 7, 10, 11, 12, 13 and 14 were accepted since the sig values of these items, ranging from .10 to .77 are greater than 0.05. Therefore, the null hypothesis of no significant difference in the mean ratings of secretaries based on their gender on the extent of adoption of electronic records processing practices in managing records in polytechnics was accepted.

**Hypothesis 2:** Secretaries do not differ significantly in their mean ratings on their extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States as a result of years of working experience (1 – 10 years, 11 years & above)

**Table 3: Summary of t-test analysis of secretaries mean ratings on the extent of adoption of electronic records processing practices in managing records in polytechnics based on years of experience**

S/N	Item Statement	$X_1$	$SD_1$	$X_2$	$SD_2$	t-cal	Sig.	Decision
1	Using of a word processor to enter and edit text and images	4.51	.29	4.17	.57	1.64	.05	NS
2	Using word processor to format text and control margin	3.32	.64	4.01	.32	1.07	.52	NS
3	Creating attractive layouts and table using a word processor	3.84	.23	4.02	.43	.89	.18	NS
4	Printing and retrieving document via word processor	4.89	.54	4.90	.73	1.72	.46	NS
5	Creating and organizing computer files and folders in window environment	4.31	.61	4.08	.44	1.28	.27	NS
6	Use of Microsoft Access for file creation of management reports	4.38	.87	3.99	.52	1.53	.13	NS
7	Use of spreadsheet to enter data	3.29	.33	2.86	.75	1.64	.32	NS
8	Use of spreadsheet to format cells into tables	2.87	.39	3.18	.60	2.06	.01	S
9	Inserting pictures and symbols into a document with correct margin and layouts	4.61	.61	4.13	.58	.96	.55	NS
10	Changing font type, style and size of a text	3.37	.27	4.02	.49	1.70	.16	NS
11	Using Word Art to create and shape	3.01	.52	3.84	.83	3.02	.00	NS

12	Keying-in text speedily and accurately paginating documents	3.06	.80	4.68	.32	1.03	.10	NS
13	Applying suitable format to types of documents	4.12	.35	4.04	.51	1.66	.49	NS
14	Previewing and printing documents	3.90	.45	3.86	.64	2.48	.00	S

**Key:**  $X_1$ = Mean of secretaries (1-10years);  $X_2$  = Mean of secretaries. (11 & above years);  $SD_1$ = Standard Deviation of secretaries (1-10 years);  $SD_2$ = Standard Deviation of secretaries (1 and above years);**Sig.** = probability value; **t-cal**= calculated values; **S**= significant; **NS**= Not Significant; df = 134.

Data in Table 3 presents the summary of mean ratings of secretaries on the extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States based on their years of working experience. The data revealed that the hypothesis of no significant difference for items 1, 2, 3, 4, 7, 9, 10, 12 and 13 were accepted since the sig values of these items ranging from .09 to .55 are greater than 0.05. The data revealed that three items with p-values of .00, .00 and .01 are less than the significant value of 0.05 at 134 degree of freedom. This indicates that there is significant difference in the mean ratings of secretaries on the extent of adoption of electronic records processing practices in managing records in polytechnics based on their years of working experience. Therefore, the hypothesis of no significant difference in the mean ratings of secretaries on items 8, 11 and 14 were rejected

#### Discussion

Findings of the study revealed that secretaries adopted record processing practices for managing record in polytechnics in Edo and Delta States at a high extent. This finding is consistent with Mbaegbu (2015) who reported that many institutions in Nigeria have gradually adopted electronic records processing practices in most of their official functions because of the many advantages it offers. This finding implies that secretaries in polytechnics in Edo and Delta States are not aware but are actively utilizing electronic records processing practices in managing records.

The findings further showed that male and female secretaries do not differ significantly in their mean ratings on their extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States. Similarly, it was found that secretaries do not differ significantly in their mean ratings on the extent of adoption of electronic records processing practices in managing records in polytechnics in Edo and Delta States as a result of years of working experience. These findings agree with Dwoya (2014) who discovered that the application of electronic records processing operations and procedures in managing students' records in tertiary institutions remain the absolute solution to records management problems in tertiary institutions in Nigeria. It, therefore, implies that secretaries in these polytechnics were adequately exposed to the skills of electronic record processing activities perhaps in the course of their secretarial training from various institutions of higher learning.



### Conclusion

The study revealed that electronic record processing practices were adopted in managing records in polytechnics in Edo and Delta States to a high extent. Based on this finding, the researchers concluded that secretaries in polytechnics in Edo and Delta States may not need further training or retraining on electronic records processing activities for effective and efficient management of records.

### Recommendations

1. Polytechnics should ensure that adequate, functional and modern facilities are available for secretaries and administrative staff to enable them perform electronic record processing practices effectively and efficiently.
2. Government and ICT manufacturing companies should support office technology and management programmes in Nigeria by providing affordable technological tools and software that could facilitate the acquisition of electronic records management skills among secretarial students for effective management of records as secretaries upon graduation
3. Workshops, seminars and retraining exercises should be organized for secretaries and administrative staff to acquire new digital skills that will facilitate the art of utilizing modern electronic records processing activities for effective and efficient management of records in the polytechnics.

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