Availability and Use of ICTs in Collection Management in University and Special Libraries in the Niger-Delta Region, Nigeria

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Introduction

This study investigates the availability and use of Information and communication technologies (ICTs) in collection management in university and special libraries in the Niger Delta Region, Nigeria. Meyer (1997:4) sees ICTs as "the hardware, software, telecommunication technology, human skills and intellectual content that enable the study, design, development, implementation, support, management or use of intellectual expressions. This includes data, knowledge and languages in all digital, print, audio and visual formats."

UNESCO (2000:12) defines ICTs as the "scientific, technological and engineering disciplines and management techniques used in information handling and processing." The use of ICTs provides quality services to users. Moreover, ICTs have revolutionized activities in all spheres of life, especially library and information services.

Faulkner (1998:4) asserts that the use of ICTs builds a strong and effective information system. For years, libraries used manual systems to gather, process, and disseminate information to users. The advent of ICTs, however, has changed this practice and made library and information services, as well as information access, much faster and easier.

Special libraries provide information for a parent organization that supports the library (Ashworth 1979:9). The parent organization could be a government department, private society or institution, a hospital, a public cooperation, a research association, an industrial company, and so on. Some prominent special libraries in Nigeria are those of the Higher Court of Justice and Federal Ministry of Justice in Lagos, which were both launched in 1990. (Nnaji, 1986). Okiy (1998:93) cites a survey conducted in 1979 which revealed more than thirty-two special libraries in Nigeria. This picture has changed drastically with the proliferation of special libraries in various sectors of the Nigerian economy, including the banking industry, business and communication.

Academic libraries are libraries established in tertiary institutions. They include libraries in universities, colleges of education, and polytechnics. The emphasis in this research is on universities.

The first university library was the library of the university college, Ibadan, established in 1948. There are presently 92 Nigerian universities, of which 27 are federal, 31 state, and 34 private.

Singh (2004:17) observes that collection development and collection management have been used almost synonymously, although there are differences in meaning. Collection development is the selection and acquisition of library materials, considering users' current needs and future requirements. Collection management is much more than collection building. It is managing the use, storage, and organization of the collection, and making it accessible to users. Branin (1994:25) notes that the paradigm of librarianship is clearly changing and the librarian's role is diversifying. Librarians at present are more concerned with collection management than collection development. They are acting increasingly as interpreters of information rather than selectors.

Daniel, Okentunji, Okojie, and Abdusalam (2003:83) observe that library automation has been a topical issue in Nigeria since the early seventies. The issue of ICTs has generated many seminars, workshops and articles. Nonetheless, only limited application of the technologies to libraries appears to have taken place. This was what informed the Executive Committee of the Nigerian Library Association when planning for the 40th Anniversary National Conference and Annual General Meeting, "Eko 2002," to commission a survey of ICTs in Nigerian libraries.

The advent of the Internet has brought awareness of the importance of global communication. People, organizations, and businesses are better informed and more connected to each other than ever before. Information that once took several processes and procedures to obtain is now readily available. Though ICTs are commonly available in Nigerian university libraries, the desired impact on library operations like collection management can only be felt when they are also well-used. Online networks, for example, could be used in expedited book selection, book ordering, and book processing, using data from large databases like the OCLC and the Library of Congress. However, if the ICTs are available to the libraries and are not properly used, then the benefit derivable in library services like collection management will be minimal, and will not justify the resources used to make the ICTs available.

Faced with this new scenario, individuals and organizations in modern society must learn new things and discard old habits and perspectives. They must retool and restrategize. If they fail to do these things, they may lose ground, decline in relevance, and face the possibility of extinction. This is particularly true of library and information personnel whose role in an academic institution is to provide support to the teachers who must impart the skills needed to keep pace with the rest of the world and prepare for the future (Anao, 2003).

Statement of the Problem

ICTs are available in many academic and special libraries in Nigeria. Effective information management is expected to translate into effective library services for users. User services in university and special libraries in the Niger-Delta Region are less than satisfactory.

Users complain of inadequate information services. The dissatisfaction may be connected with ineffective collection management. Collection management is most effective when ICTs are applied to the process. This research explores the extent to which ICTs are available, how they are used, and how they affect collection management in university and special libraries in the Niger-Delta region of Nigeria

Research Questions

The study seeks answers to the following research questions:

1. How adequate are ICTs in universities and special libraries in the Niger-Delta region, Nigeria?

2. How are ICT used for collection management in university and special libraries in the region?

3. What effect do ICTs have on collection management in university and special libraries in the region?

4. How adequate is the funding of ICTs in collection management in university and special libraries in the Niger-Delta region?

5. What are the constraints to availability and use of ICTs in university and special libraries in the Niger-Delta region?

6. What can be done to harness ICTs for more effective collection management in university and special libraries in the region?

Hypotheses

The following null hypotheses were tested in the study.

1. There is no significant difference in the availability of ICTs in collection management between university and special libraries in the Niger-Delta region, Nigeria

2. There is no significant difference in the facilities used for collection management between university and special libraries in the region.

3. There is no significant difference in the application of ICTs in collection management between universities and special libraries in the region.

4. There is no significant difference in the adequacy of funding for ICTs in collection management between university and special libraries in the region.

5. There is no significant difference in the constraints of ICTs on collection management between university and special libraries in the region.

6. There is no significant difference in harnessing ICTs for effective collection management between university and special libraries.

Significance of the Study

The study establishes an empirical basis for increased library effectiveness in academic and special libraries in the Niger-Delta region, by applying ICTs which emphasize collection management. It will call attention to the fact that mere acquisition of or access to ICTs does not guarantee effectiveness of collection management. It provides evidence for the management of university and special libraries and other stakeholders of the need to adopt a positive attitude and favourable policies and programmes to maximally harness the benefits of ICTs for collection management effectiveness.

Methodology

The study uses an ex-post-facto descriptive research design. The instrument is a questionnaire. There were three questionnaires in all, one for users, one for library staff, and one for heads of libraries. The questionnaire was validated through pretest and expert advice and had a reliability co-efficient of 0.71. From the target population of 27,730, a random sample of 845 was chosen. Descriptive statistics

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were used for the research questions while chi-square was employed to test the research hypotheses at a .05 level of significance.

Results

Table 1: Responses of Library Users to Adequacy of ICT Facilities in the University and Special Libraries

The ICTs facilities in the library are adequate	University libraries		Special libraries	
	F	%	F	%
Yes	125	(25.9)	49	(18.3)
No	357	(74.1)	219	(81.7)
Total	482	(100)	268	(100)

Table 1 reveals that only about one quarter of respondents form university libraries think that ICT facilities are adequately available. In the special libraries, less than one-fifth of respondents find ICTs adequate.

Hypothesis 1

There is no significant difference in the availability and use of ICTs in collection management between universities and special libraries in Niger-Delta region, Nigeria.

Table 2: Chi-square (χ^2) analysis on the availability and use of ICT in collection management between university and special libraries

Variables	Agreed	Disagreed	Total	Df	χ^2 -cal	χ^2 -crit	Level of sig.	Decision
University libraries	125	357	482					
Special libraries	49	219	268	1	5.512	3.84	0.05	Significant
Total	174	576	750					

Obtained χ^2 =5.512, df=1 level of significance =0.05, critical χ^2 = 3.84,

Decision: significant, Null Hypothesis Rejected.

Table 3 shows that the χ^2 - calculated value of 5.512 was greater than the χ^2–critical value of 3.84 at 0.05 level of significance i.e. 5.512 > 3.84. Hence, the null hypothesis was rejected. This shows a significant difference in the availability and use of ICTs in collection management between the university and special libraries.

Table 3: Responses of Library Heads on where ICTs are used for Collection Management

Activities/services where ICTs used	University libraries		Special libraries	
	F	%	F	%
Acquisition	4	13.3	1	7.1
Cataloguing/classification	4	13.3	1	7.1
Circulation	3	10	1	7.1
Search/Retrieving	5	16.7	3	21.4
Reports	5	16.7	3	21.4
Internet access	4	13.3	1	7.1
Improve communication skills	5	16.7	4	28.6

Table 6 reveals that very few library department or division services apply ICTs in their library operations. Use of ICTs for communication approaches 30 percent, while their use for library routines is less than 20 percent. In the university libraries, ICTs are mostly used in search/retrieval tasks and reports/communication. This was followed by acquiring cataloguing/classification and internet access. In the special libraries, ICTs are mostly used in communication, closely followed by reports and search/retrieval tasks.

Hypothesis 2

There is no significant difference in the facilities used for collection management between university and special libraries.

The result of the analysis of the hypothesis 2 is presented table 4

Table 4: Chi-square (χ^2) analysis on the facilities used for collection management between universities and special libraries

Variables	Not/A	A/Not funct	A/funct	Readily A/funct	Total	Df	χ^2-cal	χ^2-crit	Level of sig.	Decision
University libraries	152	113	136	81	482	3	22.92	7.82	0.05	Significant
Special libraries	110	74	35	49	268					
Total	262	187	171	130	750					

Not/A = Not Available

A/not funct =Available but not functional

A/funct = Available and functional

Readily A /funct = Readily Available and functional

Obtained χ^2 =22.92, df=3 level of significance =0.05, critical χ^2 = 7.82,

Decision: significant, Null Hypothesis Rejected.

From the data in table 4, the x^2–calculated value of 22.92 is more than x^2–critical value of 7.82. ie 22.92> 7.82. Hence, the null hypothesis was rejected. Thus, there was significant difference in the facilities used for collection management between universities and special libraries.

Research Question 3

What effect has the application of the ICTs on collection management in the libraries?

The result of the analysis of the research question is presented in Table 5

Table 5: Effect of ICTs on the Effectiveness Collection Management

Effectiveness of ICTs on collection Management	University libraries		Special libraries	
	F	%	F	%
Very High	29	6	15	5.6
High	55	11.4	47	17.5
Fairly	73	15.1	35	13.1
Low	182	37.8	70	26.1
No effect	143	29.7	101	37.7
TOTAL	482	100	268	100

Table 8 reveals responses of users on effectiveness of ICTs on collection management. For university libraries, nearly 40 percent indicated low effect, followed by with another 30 percent said "no effect." Responses from special libraries show that nearly 80 percent said low or no effect.

Hypothesis 3

There is no significant difference in the application of ICTs on collection management between university and special libraries.

The result of the analysis of the hypothesis 3 is shown in table 6

Table 6: Chi –square (x^2) analysis in the application of ICTs on collection management between universities and special libraries.

Variables	Agreed	Disagreed	Total	Df	x^2 - cal	x^2 -cri	Level of sig.	Decision
University libraries	343	139	482					
Special libraries	46	222	268	1	201.2	3.84	0.05	Significant
Total	389	361	750					

Obtained x^2 =201.2, df=1 level of significance =0.05, critical x^2 = 3.84,

Decision: significant, Null Hypothesis Rejected.

In Table 6, the x^2 - calculated value of 201.2 was greater than x^2- critical value of 3.84. i.e 201.2 > 3.84. Hence, the null hypothesis was rejected. This shows significant difference in the application if ICTs on collection management between university and special libraries.

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Table 7: ICT Funding

Funding of ICTs	University Libraries		Special libraries	
	F	%	F	%
0-1 Million	7	58.4	8	88.9
2-10 Million	4	33.3	1	11.1
11-20 Million	1	8.3	-	-
21-30 Million	-	-	-	-
31-40 Million	-	-	-	-
51 +	-	-	-	-
TOTAL	12	100	9	100

The level of ICT funding is low, but more acute in the special libraries.

Hypothesis 4

There is no significant difference in the funding of ICTs for collection management between university and special libraries.

The results of the analysis of the hypothesis 4 is shown in Table 8.

Table 8: Chi-square (χ^2) Analysis in the Funding of ICTs in Collection Management between Universities and Special Libraries

Variables	Agreed	Disagreed	Total	Df	χ^2 - cal	χ^2 -cri	Level of sig.	Decision
University libraries	33	48	81					
Special libraries	12	2	14	1	8.38	3.84	0.05	Significant
Total	45	50	95					

Obtained χ^2 = 8.38, df = level of significance =0.05, critical χ^2= 3.84,

Decision: significant, Null Hypothesis Rejected.

Table 8 shows that the χ^2- calculated value of 8.38 was greater than the χ^2- critical value of 3.84. Hence, the null hypothesis was rejected. This shows no significant difference in the funding of ICTs in collection management between university and special libraries.

Hypothesis 5

There is no significant difference in the constraints of ICTs in collection management between university and special libraries.

The results of the analysis of the hypothesis 5 is shown in Table 9

Table 9: Chi-square (χ^2) analysis on the constraints of ICTs in Collection Management between Universities and Special Libraries.

Variables	Agreed	Disagreed	Total	Df	χ^2 - cal	χ^2 -cri	Level of sig.	Decision
University libraries	59	22	81					
Special libraries	13	1	14	1	1.96	3.84	0.05	Not significant
Total	72	23	95					

Obtained χ^2 =1.96, df =1, level of significance=0.05, critical χ^2 = 3.84,

Decision: Not significant, Null Hypothesis Accepted.

The data in table 18 shows that at 0.05 level of significance and 1 degree of freedom, the χ^2 - calculated was 1.96 and χ^2–critical was 3.84. since the χ^2– calculated was less than χ^2 - critical i.e 1.96 <3.84. it implies that no significant difference existed on the constraints of ICTs in collection management between university and special libraries.

Hypothesis 6

There is no significant difference in harnessing ICTs for effective collection management between university and special libraries.

The results of the analysis of the hypothesis 6 is shown in Table 10

Table 10: Chi-square (χ^2) analysis in harnessing ICTs for effective Collection Management between Universities and Special Libraries

Variables	Agreed	Disagreed	Total	Df	χ^2 - cal	χ^2 -cri	Level of sig.	Decision
University libraries	482	0	482					
Special libraries	268	0	268	1	0.006	3.84	0.05	Not significant
Total	750	0	750					

Obtained χ^2 =0.006, df=1, level of significance=0.05, critical χ^2 = 3.84,

Decision: Not significant, Null Hypothesis Accepted.

The results contained in table 19 show that, at 0.05 level of significance and 1 degree of freedom, the χ^2 - calcualted value of 8.58 while the χ^2 -critical value of 3.84. Since the χ^2 -calculated value of 0.006 was lesser than χ^2 - critical value of 3.84, the null hypothesis was therefore accepted. This means that there is significant difference in harnessing ICTs for effective collection management between university and special libraries.

Findings and Conclusion

The major findings of the study are:

- There is a **significant difference** in the availability of ICTs on collection management between university and special libraries in the Niger-Delta region, Nigeria.

- There is a **significant difference** in the facilities used for collection management between university and special libraries in the region.
- There is a **significant difference** in the application of ICTs on collection management between university and special libraries in the region.
- There is a **significant difference** in the funding of ICTs in collection management between university and special libraries.
- There is **no significant difference** in the constraints to the use of ICTs in collection management between university and special libraries
- There is **no significant difference** in harnessing collection management between university and special libraries in Niger Delta region, Nigeria.

The findings provide an insight to the low level of availability and use of ICTs for collection management. The study establishes that the university libraries in the Niger-Delta region have more ICT facilities than the special libraries, contrary to the widely- held belief by librarians. The data also revealed that mere availability of ICT facilities does not guarantee their use for collection management in the libraries, but availability matched with adequate power supply and enthusiastic work force.

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