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Utilization of Information and Communication Technology in Public Library Operations

in Rivers State, Nigeria

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Abstract

The paper examined the utilization of Information and Communication Technology (ICT) in public library services in Rivers State, Nigeria. Three (3) research questions guided this study. The researchers adopted a descriptive survey design. The sample of the study comprised 18 library staff out of a total population of 22 staff in the public library. The total enumeration sampling techniques were used for this study because the sample is not large. Data were collected using a structured questionnaire. The validity of the instrument was investigated by checking the content validity of the instrument and the instrument proved valid because the items in the instrument are appropriate in terms of subject contents. Cronbach Alpha technique was used to determine the reliability coefficient of the instrument and an index of 0.86 was gotten. This shows that the internal consistency of the instrument is high and good. Data were analyzed using percentages, and frequency count while SPSS was used to generate the mean and standard deviation. The findings revealed that there is an acute shortage of ICT facilities in the public library in Rivers State. The commonly available ICT facilities in the public library were computers, printers, photocopiers, uninterrupted power supply, scanners, and Smartphones. The findings discovered that there is a general poor usage of ICT facilities in library operations. It was also established that lack of adequate funding, poor internet connectivity, and poor electricity supply were some of the major challenges to the use of ICT facilities in the public library in Rivers State. Based on the findings, the researchers recommended among others that the state government should provide adequate funding for the library to acquire the necessary ICT infrastructures, ICT facilities, and alternative sources of power supply. The study, therefore, concluded that public libraries in Nigeria must make use of ICT facilities and resources if they are to remain relevant in this digital era.

Keywords: Public library, Information and Communication Technology, Rivers State, Nigeria

Introduction

Public libraries are those that are funded by the government and are open to everyone. They are generally established to provide unrestricted access to information resources free of charge to people from various walks of life. According to UNESCO public library manifesto cited by Edoka, (2000) defined the public library as the local center of information, making all kinds of knowledge and information readily available to its users. It provides a wide range of resources and services regardless of race, nationality, age, gender, religion, language, disability, and educational attainment among others. Because it is open to all types of users, the public library is often referred to as the people's university. Public libraries are found in almost every country and are often considered essential to having a well-educated and literate community.

With the advent of Information and Communication Technology (ICT), public libraries' services have been transformed as they now provide digital resources and services to their users. ICT is described by Akanbi et al. (2020) as the electronic means of capturing, processing, storing, and communicating information. ICT comprises all the electronic infrastructure and facilities employed by libraries to improve and provide efficient services and it includes telecommunications technologies, such as telephone, cable, satellite, TV and radio, computer-mediated conferencing and videoconferencing, Internet-based facilities, software applications, printers, laminators, faxes, and photocopiers. The digital convergence of computer technologies, telecommunication technologies, and other media communication technologies gave rise to ICT. ICT acceptance and use by organizations and individuals is more widespread today than ever before, and it is being employed in a variety of library settings (Chisenga 2006).

In the 1940s, western countries began to use ICT in library and information work, and by the mid-1960s, substantial changes had occurred in library operations. The way information is obtained, processed, stored, accessed, and disseminated is among the biggest changes. The Internet's emergence has radically altered the landscape of library and information services. Information technology has produced several opportunities for information professionals all across the world as a result of its impact. The advent of microcomputers, which were mostly restricted to university and research libraries, ushered in the adoption and usage of ICT in

African libraries in the early 1980s (Chisenga 2004). ICTs are gradually being used by various types of libraries, such as national and public libraries.

Public libraries in developed countries have completely adopted the digital revolution, and its use has resulted in improved public library service delivery. ICT technologies are currently being used to deliver value-added information services to their clients, as well as access to a wide variety of digital-based information resources and automate their core functions. (Chisenga 2006). ICT has improved the user experience in public libraries by ensuring that services are delivered quickly and efficiently (Mamafha 2014). Many public library services, including providing Internet access, conducting searches with online public access catalogs (OPACs), and so on, have been altered by the use of ICT (Patricia 2000). The use of ICT facilities has effectively and efficiently handled repetitive and routine data processing tasks that characterize public library operations.

Despite its expansion and potential for improving services and operations, the availability of ICT facilities in Nigerian public libraries is woefully inadequate, and their use is even worse (Mamman 2015). The ICT facilities that are mostly available in Nigerian public libraries are computers, UPS, printers, and scanners, and they are used for library administration and management, as well as word processing. Essential ICT services such as Internet access, online database, CDROMs, DVDs/VCDs, and library application software are rarely available. Because of this, most public libraries in Nigeria have not completely embraced the use of ICT in their operations. A variety of reasons are impeding the successful use of ICT in public library services in Nigeria. Inadequate financing, employees with limited computer proficiency, insufficient ICT equipment, unpredictable power supply, a negative attitude toward automation, the usage of inappropriate library software, and technophobia are just a few of the issues (Mamman 2015; Adeleke 2017).

If public libraries in Nigeria do not use ICT, patrons will be denied access to the entire variety of resources available through modern technology, and their services will not match their demands. Users may be dissatisfied as a result, and they may not be able to reach self-actualization or their life goals. As a result, Nigerian public libraries may be unable to contribute to national growth.

To be relevant, Nigerian public libraries must recognize and take advantage of the exciting advancements in ICT to provide useful services to their patrons. The quality of library services in Nigerian public libraries will equally be enhanced when ICT is used more extensively in library operations and services. However, the researchers discovered that there are insufficient empirical studies on the use of ICT in Nigerian public libraries, which the current study aims to address. It is on this note that this study, therefore, examined the use of ICT facilities in public libraries services in Rivers State Nigeria.

Statement of the Problem

ICT is critical to the growth of public libraries because it allows them to deliver better, more effective, and efficient services to their patrons. Despite its rapid expansion, it is still not widely available in most Nigerian public libraries, and this has continued to widen the gap between them and libraries in developed countries. Many Nigerian public libraries have yet to automate their services. They still make use of the outdated manual methods in providing library operations. As a result, in comparison to their counterparts in advanced countries throughout the world, they are unable to provide efficient and effective information services. Nigerian public libraries are not islands unto themselves; they must be a part of the global information system and, as such, must respond to the challenges of the electronic revolution in the same way that their counterparts in the developed world (Eze 2013) if they must remain relevant. This study, therefore, intends to examine the use of ICT facilities in public libraries services in Rivers State Nigeria.

Objectives of the Study

The specific objectives of this paper are as follows:

- To identify the ICT facilities that are available in the public library in Rivers State
- To determine the extent to which ICT facilities are used for various public library operations
- To ascertain the challenges encountered in the use of ICT in public library services

Research Questions

- What are the ICT facilities that are available in the public library in Rivers State?
- To what extent are ICT facilities used in the various library operations?

- What are the challenges encountered in the use of ICT in public library services?

Literature Review

Several studies have been conducted on the application of ICT in public libraries. In this section, a review of some of these studies is presented. Fitzgerald and Savage (2004) examined the impact of ICT on public libraries in Victoria, Australia, and discovered that these libraries were becoming increasingly reliant on ICT to regulate access and provide information services.

Al-Qallaf & Al-Azmi (2002) investigated the availability and use of information technology in Kuwait's public libraries. Their main focus was hardware/software, Internet connectivity, training, development, and future forecasts about the usage of information technologies. The findings reveal that there were discrepancies in the ICTs found in the libraries. Eight of the libraries had computers, while the remaining 15 did not have any type of ICT. According to the report, just a few libraries have Internet access, and automated systems are still underutilized. Poor planning, finance, a lack of skilled employees, and an inadequate building structure were highlighted as some of the reasons impeding the growth of ICTs in the public libraries studied by the authors.

Mamafha et al. (2014) conducted a study on the use of ICT in public libraries in South Africa's Ekurhuleni Metropolitan Municipality. The findings suggest that library ICT facilities were well used, but that access time limits, lack of ICT equipment, and restrictive policies in these libraries made it impossible for users to fully benefit from ICT applications. Baada et al. (2019) did a study on users' perception of the quality of public library services in the greater Accra region of Ghana. The results showed that patrons were dissatisfied with the quality and depth of equipment and facilities and particularly the absence of internet connectivity and digital collections.

In the Nigerian context, Adeleke (2017) examined the extent to which public libraries in South-West Nigeria are automated. The study's findings revealed that public library automation in South West Nigeria was limited and in various phases of development. The research revealed that there are several barriers to the efficient use of ICT in libraries. These include unreliable power supply, inadequate ICT infrastructure, a lack of technical skills, a negative attitude toward

automation, a lack of senior management support, the usage of improper library software, and technophobia. Mamman (2015, 103) did a study on the use of ICT in public library services in Nigeria. The research found that the availability of ICT facilities in Nigerian public libraries is woefully inadequate, and its use is equally poor. Some of the challenges to efficient use of ICT in public libraries include inadequate budget, employees with low computer skills, inadequate ICT infrastructure, and a lack of ICT knowledge among users.

Similarly, Ikenwe & Adegbilero-Iwari (2014) in a study of utilization and user satisfaction of public libraries in South West Nigeria, identified a lack of adequate information communication technologies as a major element hindering the satisfaction of users in public libraries in South West Nigeria. In Nigeria, public libraries receive less attention when it comes to the adoption of automated services, and as a result, they are less positioned to benefit from the opportunities that ICTs provide. Okuonghae & Obadare (2020) noted that poor funding, epileptic power supply, lack of adequate support from the government, and inadequate library infrastructure among others are some of the challenges faced by Nigerian public libraries in services delivery. When compared to academic libraries, ICT has yet to take hold in public libraries, according to Kadiri & Adetoro (2012).

Research Methodology

The study employed a descriptive survey design. The sample of the study comprised 18 library staff out of a total population of 22 staff in the public library in Rivers State, Nigeria. The total enumeration sampling techniques were used for this study because the sample is not large. A response type of 'Available and Not Available was used for research question 1 while a four-point Likert scale of 'Strongly Agree', 'Agree', 'Disagree', and 'Strongly Disagree' response type was used for research questions 2-3. For Research Question 2, a mean response below 2.5 was adjudged 'low extent' while the mean response of 2.5 and above was adjudged as 'high extent'. Similarly, for Research Question 3, a mean response below 2.5 was adjudged as 'not agree', while the mean response of 2.5 and above was adjudged as 'agree'. Data were analyzed using percentages, and frequency count while SPSS was used to generate the mean and standard deviation. The data gathered from the study were analyzed to check for internal consistency of

reliability and the Cronbach alpha value of 0.86 was obtained. Based on the coefficient obtained, the questionnaire was considered reliable.

Results

The findings of the study are presented in the following tables with explanations

Demographic Characteristics of Respondents

Table 1: Gender of the Respondents

Gender	Frequency	Percentage (%)
Male	9	50
Female	9	50
Total	18	100

Table 1 shows that 9(50%) of the respondents were male while 9(50%) were also female. This implies that the majority of the respondents were

Table 2: Age of the Respondents

Age-Range	Frequency	Percentage (%)
21-30	2	11
31-40	4	22
41-50	7	39
51years and above	5	28
Total	18	100

From table 2, it reveals that 7(39%) of the respondents were within the age bracket of 41- 50 years, 5(28%) were within the age bracket of 51 years and above, 4(22%) were within the age bracket of 31 – 40 years above whereas 2(11%) were within the age bracket of 21-30 years. This implies that the majority of the respondents were within the age bracket of 41-50 years.

Table 3: Educational Qualifications of the Respondents

Qualifications	Frequency	Percentage (%)
OND/HND	7	39
Bachelors	9	50
Masters	2	11
PhD	-	-
Total	18	100

Table 3 shows that the majority of the respondents 9(50%) were Bachelor's degree holders, 7(39%) were OND/HND certificate holders while 2(11%) were Master's degree holders. This implies that the majority of respondents under study were Bachelor's degree holders.

Table 4: Departments of the Respondents

Qualifications	Frequency	Percentage (%)
Circulation unit	7	39
Serials unit	2	11
Acquisition unit	3	17
E-library	4	22
Cataloging and classification	-	-
Administration	2	11
Total	18	100

Table 4 shows that the majority of the respondents 7(39%) were in the circulation unit, 4(22%) were in the e-library, 3(17%) were in the acquisition unit while 2(11%) were in the serials and administration unit respectively. This implies that the majority of respondents under study were in the circulation unit.

Answering Research Questions

This section discusses the findings of this study based on the research questions raised. The results are presented in Tables 5-7.

Research Question 1: What are the ICT facilities that are available in Rivers State public library?

Table 5: ICT Facilities Available in Public Library

S/N	ICT Facilities	Available	Not Available
1.	Computer systems	Available	-
2.	Printers	Available	-
3.	Photocopiers	Available	-
4.	Uninterrupted power supply (UPS)	Available	-
5.	Scanners	Available	-
6.	Smartphone's	Available	-
7.	Internet services	-	Not Available
8.	CD/DVD	-	Not Available
9.	Library management software	-	Not Available
10.	Audio/videotapes	-	Not Available
11.	Telephone (intercom)	-	Not Available
12.	Satellite connection	-	Not Available
13.	Electronic resources	-	Not Available
14.	Bar code sensors/readers	-	Not Available
15.	Projectors	-	Not Available
16.	CCTV Camera	-	Not Available
17.	Digital cameras	-	Not Available
18.	Radio	-	Not Available
19.	Television	-	Not Available

Table 5 shows the ICT facilities available in the public library in Rivers State. Table 5, therefore, shows that items 1-6 which are computer systems, printers, photocopiers, uninterrupted power supply, scanners, and Smartphones are the only ICT facilities available in the library. Items 7-19 are therefore not available. This implies that there is a general lack of ICT facilities in the public library in Rivers State.

Research Question 2: To what extent are ICT facilities utilized in the various library operations?

Table 6: Extent of ICT Facilities Use in Library Operations

S/N	Library Operations	SA	A	D	SD	Mean	S.D	Remark
1.	Library management and administration	8	4	1	5	2.8	1.29	High extent
2.	Cataloging & classification	4	8	3	3	2.7	1.01	High extent
3.	Selection and acquisition	5	4	5	4	2.5	1.14	High extent
4.	Internet services/access	3	5	6	4	2.3	1.03	Low extent
5.	Serials control	2	3	9	4	2.1	0.92	Low extent
6.	Reference services	2	3	8	5	2.1	0.96	Low extent
7.	Interlibrary cooperation and lending services	2	5	2	9	2.0	1.13	Low extent
8.	Information literacy skills	2	4	5	7	2.0	1.05	Low extent
9.	Circulation control	-	4	8	6	1.8	0.75	Low extent
10.	Current awareness services	-	5	4	9	1.7	0.87	Low extent
	Grand Mean					2.2	1.02	

Table 6 reveals the library services provided through the use of ICT facilities. The table reveals that items 1-3 have mean values of 2.5 and above while items 4-10 all have mean values that are below the accepted criterion mean of (2.5). Table 6, therefore, reveals that items 1-3, library management and administration, cataloging & classification, selection, and acquisition are the only library operations that are managed by ICT facilities. Items 4-10, therefore, show a poor usage of ICT facilities in library operations as revealed in the mean scores of the listed items. This implies that there is a general poor usage of ICT facilities in library operations.

Research Question 3: What are the challenges encountered in the use of ICT in public library operations?

Table 7: Challenges Encountered in the Use of ICT in Public Library Operations

S/N	Challenges	SA	A	D	SD	Mean	S.D
1.	Lack of adequate funding	15	2	-	1	3.7	0.75
2.	Lack of internet connectivity	14	2	1	1	3.6	0.84
3.	Poor electricity supply	11	7	-	-	3.6	0.50
4.	Lack of ICT skills	9	6	3	-	3.3	0.76
5.	Lack of access to computers/laptops	4	9	5	-	2.9	0.72
	Grand Mean					3.4	0.71

Table 7 shows the responses to the challenges encountered in the use of ICT facilities in public library operations in Rivers State. Table 7, therefore, shows that all the items 1-6 have mean values that are above the criterion mean of (2.5). More so, the grand mean (3.4) is greater than the criterion mean (2.5), this shows that all the items in table 7 are the challenges to the use of ICT equipment. Most notable among the challenges is lack of adequate funding, poor internet connectivity, and poor electricity supply.

Discussion

This paper examined the utilization of Information and Communication Technology (ICT) in public library services in Rivers State, Nigeria. The study revealed that there is a severe dearth of ICT facilities in public libraries in Rivers State. The Nigerian government's stance towards library funding, particularly public libraries, is to blame for the shortage of ICT facilities. Due to a long-standing culture of inadequate educational funding, library facilities have been neglected and deteriorated. As a result of their ignorance of the importance of libraries to national development, governments do not recognize the necessity to effectively fund libraries. This finding is in conformity with the findings of Mamman (2015) who established that there is a shortage of ICT facilities in most public libraries in Nigeria. The study also discovered that there is a general poor usage of ICT facilities in library operations. This may be a result of the lack of ICT facilities in the library. This finding conforms to the findings of Chisenga (2004) who also found low usage of ICT facilities in public library operations in Africa, Nigeria inclusive. Lastly, the study established that lack of adequate funding, poor internet connectivity, and poor

electricity supply were some of the major challenges to the use of ICT facilities in the public library in Rivers State. However, the problem of poor internet connectivity and poor electricity supply may be largely due to a lack of funds to acquire adequate ICT infrastructures, pay for Internet subscriptions and provide alternative sources of power supply. This finding is therefore in agreement with the findings of Okuonghae & Obadare (2020); Adeleke (2015) who also found that poor funding, epileptic power supply, and inadequate ICT facilities were the major barrier to ICT utilization in public libraries in Nigeria.

Conclusion and Recommendations

The paper examined the utilization of Information and Communication Technology (ICT) in public library services in Rivers State, Nigeria. This study confirmed that there is an acute shortage of ICT facilities and poor usage of ICT facilities. The study also established that lack of adequate funding, poor internet connectivity, and poor electricity supply were some of the major challenges to the use of ICT facilities in the public library in Rivers State. Based on the findings, the researchers recommended that the state government should provide adequate funding for the library to acquire the necessary ICT infrastructures, ICT facilities, and alternative sources of power supply. The public library authority should partner with international and local agencies in ensuring the provision of ICT facilities. The library should also sponsor its staff for ICT-related workshops and training and should organize workshops and seminars on ICT literacy for their users. The study concluded that public libraries in Nigeria must use ICT facilities and resources if they are to remain relevant in this digital era.

References

- Achebe, N.E.E. 2005. The state of ICT in Nigerian public libraries. *Coal City Libraries* 2(1&2): 13-31.
- Adeleke, O. A. 2017. An investigation of the extent of automation of public libraries in South-West Nigeria. PhD thesis, University of KwaZulu-Natal, Pietermaritzburg, South Africa.
- Akanbi, M. L., Ogunleye, D. O. and Sulaiman, K. A. 2020. Application of ICT in information dissemination in special libraries in Nigeria. *Record and Library Journal*, 6(1), 1-13.
<https://e-journal.unair.ac.id/index.php/RLJ>
- Al-Qallaf, C. and Al-Azmi, H. 2002. Information technology in public libraries in Kuwait: A first study. *The International Information & Library Review* 34(4): 289-308.
- Baada, F. Naazi-Ale, Baayel, P., Bekoe, S. and Banbil, S. 2019. Users' perception of the quality of public library services in the greater Accra region of Ghana: An application of the LibQUAL+ model. *Library Philosophy and Practice (ejournal)*.2496.
<https://digitalcommons.unl.edu/libphilprac/249>
- Chisenga, J. 2004. The use of information and communication technologies (ICTs) in African public library services: A survey of ten countries in Anglophone Africa. INASP infobrief3: 1-14. <http://www.inasp.info>
- Chisenga, J. 2006. Information and communication technologies: Opportunities and challenges for National and University libraries in Eastern, Central and Southern Africa.
<file:///C:/Users/User/Documents/ICT%20and%20Public%20libraries/11881784.pdf>
- Eze, J.U. 2013. Re-equipping the Nigerian public library system and services for the 21st century. *International Journal of Library and Information Science Review* 5(10): 300-305.
- Eze, J. 2012. Cataloguing in the era of ICT: What is happening in public libraries of South-East Nigeria. *Library Philosophy and Practice*. 760: 1-8.
<http://digitalcommons.unl.edu/libphilprac/760>
- Fitzgerald, B. and Savage, F. 2004. Public libraries in Victoria, Australia: An overview of current ICT developments, challenges and issues. *OCLC System and Services* 20 (1): 24-30.
- Ikenwe, J. and Adegilero-Iwari, I. 2014. Utilization and user satisfaction of public library services in South West Nigeria in the 21st century: A survey. *International Journal of Library Science* 3(1): 1-6.

- Kadiri, J. and Adetoro, N. 2012. Information explosion and the challenges of information and communication technology utilization in Nigerian libraries and information centres. *Ozean Journal of Social Sciences* 5(1): 21-30.
- Mamafha, T. M. M., Ngulube, P. and Ndwandwe, S. C. 2014. Utilization of ICT in public libraries at Ekurhuleni Metropolitan Municipality in South Africa. *Information Development* 1–14. <https://doi.org/10.1177/0266666914550214>
- Mamman, E S. 2015. Utilization of information and communication technologies in public services in Nigeria. PhD thesis, University of Nigeria Nsukka.
- Okuonghae, O. and Obadare, O. S. 2020. Library and information services for socio-political rebirth in Nigeria: The role of public libraries. *International Information & Library Review* 1-10. <https://doi.org/10.1080/10572317.2020.1815277>
- Patricia, A. L. 2000. The older adult and public library computer technology: A pilot study in a Canadian setting. *Journal of Library and Information Science* 50(20): 225-234.
- The Public Library Service 2001. IFLA/UNESCO considering libraries for development. Muchen: KG Saur. IFLA Publications 97, 11p. <https://repository.ifla.org/bitstream/123456789/920/2/ifla-publication-series-97-en.pdf>