



Journal of Advances in Mathematical & Computational Sciences

An International Pan-African Multidisciplinary Journal of the SMART Research Group

International Centre for IT & Development (ICITD) USA

© Creative Research Publishers

Available online at <https://www.isteam.net/mathematics-computationaljournal.info>

DOI: dx.doi.org/10.22624/AIMS/MATHS/V10N2P2

CrossREF Member Listing - <https://www.crossref.org/06members/50go-live.html>

Impacts and Challenges of ICT on Service Delivery in Academic Libraries

Ihim, Christiana C. (CLN, AWLIN) & Edom, Eunice Uchechi (PhD, CLN, AWLIN)

Professor Gabriel Umezurike Library

Imo State Polytechnic

Umuagwo, Imo State, Nigeria

E-mail: euniceedom@gmail.com

ABSTRACT

This research focuses on the impact and challenges of ICT on the services delivery in academic libraries. Respondents were randomly selected among the librarians and library officers. The research adopted a survey research design to investigate a population of 119 staff drawn from the academic libraries. A structured questionnaire was used to collect data. Data gathered were presented in tables and analyzed using mean value and percentages. The results show that majority of the service delivery in the library such as Selective Dissemination of Information and Current Awareness Services, reference services delivery, User Education, circulation, Acquisition, research and development are carried out using ICT. The study also show that ICT has made service delivery in library faster and quicker, provides up to date information, provides remote access of information to users. The study also reveals poor attitude of staff to ICT, lack of ICT skill/competence, erratic power supply and lack of equipment maintenance as some of the factors militating against the use of ICT in academic libraries service delivery. The research concludes that the application of ICT in the service delivery of academic libraries is necessary because it makes service delivery easy and worthwhile and therefore should be encouraged. The study therefore recommends the installation of ICT facilities in the library and adequate ICT training of library staff for effective and efficient service delivery.

Keywords: Libraries, Academic, ICT, Services, Delivery, Impacts, Challenges

Ihim, C.C. & Edom, E.U. (2022): Impacts and Challenges of ICT on Service Delivery in Academic Libraries

Journal of Advances in Mathematical & Computational Science. Vol. 9, No. 2. Pp 13-20. DOI:

dx.doi.org/10.22624/AIMS/MATHS/V10N2P2

Available online at www.isteam.net/mathematics-computationaljournal.



1. INTRODUCTION

Academic libraries have essential roles to play within and outside their parent institutions. They have the role of providing information for research, teaching and learning to staff and students both within and outside their parent institution. They make the relevant information readily available and accessible to library users by acquiring, processing, organizing, storing, retrieving and disseminating information resources to library users. In this era of information explosion, this services will be hampered without ICT. Oyedun 2007 opines that ICT has in no small measure enhanced the services of the libraries in achieving these roles.

He defines academic libraries as those libraries that are mainly found in tertiary institutions, they are established to support learning, teaching and research process. American Library Association (ALA) define Information Technology as the application of computers and other related technologies to the acquisition, storage, retrieval and dissemination of information. In extension, Mathew (2012) sees ICT as the mechanism used to process, store and transmit information which could be in numeric or text. From the above definitions, one can deduce that ICT holds the key to effective and more appropriate library operations and services. ICT has impacted positively in different operations and services of the library such as Online Public Access Catalogue (OPAC), Current Awareness Service, Document Delivery, inter library loan.

In the bid to fully integrate ICT into the services of the library, library and information centers face a lot of challenges. Tihamiyu et al(2002) write that the use of computer brings with it fatigue, computer addiction and obsession, cumulative trauma disorders, stress and other occupational safety and health related problems as well as social problems like isolation, alienation depersonalization etc. Inadequate funding, lack of ICT policies, lack of equipment maintenances, lack of technical know - how of staff have posed serious challenges to ICT application to library service delivery.

1.1 Statement Of The Problem:

In spite of the numerous impacts of ICT to libraries operations and services, many Academic libraries have not fully incorporated it in their operations and service delivery, the study was therefore undertaken to ascertain the problems associated with ICT in service delivery of the library.

1.2 Significance Of The Study

This study will help to acquaint both the library management, management of institutions and library employee with better understanding of what they stand to gain when they integrate ICT into their service delivery.

1.3 Objective Of The Study

The objectives of this research are as follows:

To identify the type of library services carried out using ICT in academic libraries

To ascertain the impact of ICT on library services.

To ascertain the challenges of ICT on effective service delivery in academic libraries.

To proffer solutions to identified challenges

2. LITERATURE REVIEW

The impact ICT has in the delivery of library services in academic libraries cannot be over emphasized. Omogor (2006) refers ICT as the system for producing, storing, sending and receiving digital files, it is a conveyance of interest between electronic computing and communication all leading to the rapid development of microelectronics.. In this era of information explosion, ICT becomes an answered call in the organization and control of knowledge. Uwaifo states that the potentials of ICT can be maximized as long as they serve the through purpose of college libraries, which among other things is to support and aid research. This therefore buttresses the importance of ICT in library service delivery. In the words of Krubu and Osawaru (2011).



Fig. 1 : Use of ICTs in the Library
 Source: <https://www.eifl.net/news/>

ICT has impacted on every sphere of academic library activities especially in the form of collection development strategies, library building and consortia, ICT presents an opportunity to provide value-added information services and access to a wide variety of digital based information resources to their clients. Awuori et al (2013) observes that ICT has led to the development of new professional paradigm within the field of librarianship by meeting the students needs in fulfilling their course assignments and thereby enhancing programs, meeting teaching and research needs, accommodating other informational needs of the distance learning community as appropriate. This according to them run contrary to the traditional library services whereby the users have to be present in order to access the wide range of information services needed to satisfy their information needs.



This is definitely a serious challenge because libraries may not be able to retrieve information stored on those equipment in the next 30 years and it will certainly be a big problem in the next 100 years. Lack of maintenance culture is very crucial to mention in the use of ICTs in libraries, because maintenance of these equipment are highly neglected, employees see them as government property therefore tend to mishandle them, once they become faulty they are totally abandoned

3. DATA PRESENTATION AND ANALYSIS

In this section we present research data and their analysis

TABLE 1: What The Types Of Library Services Performed Using let?.

	LIB SERVICES USING ICT	SA	A	D	SD	MEAN(x)
A	Interlibrary loan services	31	56	19	13	2.88
B	SDI/CAS	51	48	10	10	3.16
C	Reference Services	50	48	11	10	3.16
	User Education	83	30	6	0	3.65
E	Research and development	43	31	19	13	2.88
F	Circulation	50	37	19	13	2.88
G	OP AC	31	56	19	13	2.88
H	Acquisition	56	31	19	13	2.88
	Significant=2.77					

As shown on the above table I with a significant mean value of 2.77, all the library services can be carried out using ICT All the services listed were significant because their mean values are greater than the expected significant value of 2.77.

These services were Selective Dissemination of Information(SDI) and Current Awareness Services(CAS) (x3.16), Reference Services(x3.16),User Education, Research and Development(x2.88]Online Public Access Catalogues (OPAC) and Interlibrary Loan Services (2.88).

Table II: What Are The Impacts Of let On Library Services?

	IMPACT OF ICT TO LIB SERVICES	SA	A	D	SD	MEAN(x)
A	Makes service deliver quicker and faster	51	36	20	12	3.06
B	Expands extent of services available to users	48	47	15	09	2.87
C	Provides up to date information services	42	55	10	13	2.93
D	Provides remote access of information sources to users	47	48	15	09	2.87
E	Makes academic libraries relevant	55	42	10	13	2.93
	Significant mean value=2.80					

A number of factors show that ICT has great impact in academic libraries services delivery at significant mean value of 2.80 as shown in Table 111. The responses show that ICT makes service delivery faster (x3.06), makes academic libraries relevant (2.93), provides up to date information services, (x2.93) and provides remote access of information sources to users (x2.87), also provides extent of services available to users (x2.87). This shows that there is no limit to what ICT can be used to perform.

Table 111: What Are The Challenges Of ICT To Effective Service Delivery In Libraries?

	Militating factors	SA	A	D	SD	MEAN(X)
A	Poor attitude of library staff to ICT	51	36	20	12	3.06
B	Lack of ICT skill/competence of library staff	53	30	19	17	2.81
C	Erratic power supply	26	13	42	39	2.93
D	Frequent change in technology	51	26	15	27	2.34
E	Lack of equipment maintenance	48	32	30	0.9	2.87
F	Machine obsolete	51	36	20	12	3.06
	Significant at 2.80					

A number of factors militate against the use of ICT in the delivery of library services. At a significant mean value of x2.80 as shown on table iii above. The factors include poor attitude of staff to ICT (x 3.06) and machine obsolete (x3.06) which has the highest mean value. Lack of ICT skill/competence (x2.81), Erratic power supply (x2.93). Lack of equipment maintenance (x2.87). However frequent change in technology (x2.34) did not pose any significant obstacle, the mean value is less than the significant mean value of (x2.80), This is may be because it is not a common practice for libraries to change their equipment often.

TABLE IV: What Are The Solutions To Identified Challenge Of ICT To Library Service Delivery?

	SOLUTIONS	RESPONSES	%
A	Staff should developed Positive attitude towards ICT	79	94.1
B	Adequate training should be giving to staff	74	88.6
C	Power should be supplied regularly to libraries	68	80.92
D	Equipment maintenance culture should be improved.	64	76.19
E	Alternative means of saving information from ICT should be sought.	79	94.1

From table iv above, respondents suggested a number of measures to be taken in order to ameliorate the challenges posed by ICT in carrying out library services. Majority of the respondents suggested that Academic libraries should sought for alternative way of saving their information in case of any eventuality and that library staff should develop positive attitude towards ICT 79 (94.1%) some of the respondents suggested that adequate training should be given to library staff, 74 (88.6%), this may be because they understand that well trained library personnel is a major resource to the library. others suggested provision of regular power supply 68 (80.92%) and the maintenance of existing ICT equipment. 64 (76.16%).



4. CONCLUSION

In conclusion the use of ICTs in academic libraries service delivery is a right step in the right direction. ICT has greatly impacted the services of the libraries and has made library and librarians remain relevant in this era of information explosion. It has speed up the activities of information handling in the library thereby projecting the world as a global village.

5. RECOMMENDATIONS

The paper recommends the establishment of ICT facilities in the libraries. Provision and implementation of ICT Policies to libraries for efficient and effective service delivery. The paper also recommends adequate ICT training for the staff of the library.

REFERENCES

1. Amechi, N.M, Enweani, U.V., and Eke, C.C. (2015). Challenges of library and information service (LIS) delivery in the 21st Century: the situation in three academic libraries in Imo State Nigeria. *Library Philosophy and Practice*.
2. Awuori, F.M. Rabah, K. and Maake, B.M.(2013). Hindrance of ICT adoption to library services in higher institution of learning in developing countries. *Computer Science Information Technology* 1(4) PP 252.
3. Chaudhary, S. K.(2011) *Encyclopaedia of Teaching of Library Science: Library preservation and conversation*. New Delhi: A. P. H. Publishing Corporation Vol. 5
4. Chaudhary, S. K.(2011) *Encyclopaedia of Teaching of Library Science: library marketing*. New Delhi: A. P. H. Publishing Corporation Vol. iii.
5. Chisenga, J.(1995) The skills of information technology in Zambian libraries. in Ekoja, Innocent (2007). *information and communication technology (ICT): librarians knowledge, use and skill in Nigerian university libraries*. Communicate 9(1)
6. Keller, (2001) *Strategies for teaching students with vision impairment*. in Akinbode, F.A, Amusa, R. O. and Odunewu, A.O.(2009) *Current trends in library and information science*. *Library Philosophy and Practice*. Pp 289-298.
7. Krubu D. E. and Osawara K. E. (2011).*The impact of information and communication technology (ICT) in Nigerian university libraries*. *Library philosophy and practice*. E journal. Retrieved from <http://uni.lib.philosophyandpractice.com>, on July, 2019.
8. Mathew S.K.(2012) *Developing technologies skills for academic librarians: a study based on the university of Kerala, India*. *Library Philosophy and Practice (e journal)* accessed from www.digitalcommons.edu.
9. Nwachukwu, V.N. (2005) *Information technology application to libraries in developing countries. The need for coalition*. *Global Review of Library and Information Science*. 1(1)2005.
10. OJO igbinoba, M.F (1999). *The potential of CD-ROM technology in African libraries*. *African journal of libraries, Archives and information science* 3(2) 157-167.
11. Omorgor, I.M. (2006) *Assessment of the use of information technology in Nigerian universities: a case study of Delta State University, Abraka*. *Nigerian Library Link* (4)1&2, 79-86



12. Oyedun, (2007) in Amechi, N.M, Enweani, U.V., and Eke, C.C. (2015). Challenges of library and information service (LIS) delivery in the 21st Century : the situation in three academic libraries in Imo State Nigeria. *Library Philosophy and Practice*
13. Technology Boost For Public Libraries In Uganda. <https://www.eifl.net/news/>
14. Tihamiyu (2002) in Anumobi, C.V. (2005) ICT availability and use in Nigerian university libraries. *Global Review of Library Information Science*, 1(1) pp. 40.
15. Uwaifo, S.O.(2010) Information communication technology and library service in society. *Modern library and information science for information professionals in Africa* pp237-238