FEDERAL UNIVERSITY GUSAU (FUGUS), ZAMFARA STATE, NIGERIA
FUGUS INTERNATIONAL JOURNAL OF LIBRARY AND INFORMATION SCIENCE (FIJLIS) VOL. 1, NO. 1, (JULY) 2024: DOI: https://doi.org/10.57233/fijlis.v1i1.04 ISSN PRINT: 1595-3432 A Publication of the University Library

INFLUENCE OF INFORMATION AND COMMUNICATION TECHNOLOGY AND INFORMATION LITERACY SKILLS ON LIBRARY USE AMONG STUDENTS OF TERTIARY INSTITUTIONS IN BORNO STATE, NIGERIA

Sa'idu Yakubu Umar[1]; Bukola Agboola[2]; Umar Abba[3]
Computer and ICT Centre, University of Maiduguri, Borno State.[1]
hsaidu2014@unimaid.edu.ng 08063297513[1]
University Library, Federal University Gashua, Yobe State.[2]
agboolabukolao@gmail.com 07038817697[2]
Ramat Library, University of Maiduguri, Borno State.[3]
uabba771@unimaid.edu.ng 07030699610[3]

Received on: 1st Dec, 2023 **Revised and Accepted on:** 18th June, 2024 **Published on:** 30th July 2024

ABSTRACT

This study examines the influence of information and communication technology and information literacy skills on library use among students of tertiary institutions in Borno state. The study was guided by three (3) objectives and three (3) research questions. A survey research design was adopted for the study and seventeen thousand five hundred and seventeen (17,517) registered library users were used as target population. While, the sample size for the study was one thousand and eighteen (1,018) users drawn from the target population using Krejcie, and Morgan (1970) table for determining sample size. Systematic sampling technique was used to ascertain the respective sample of the study. Thus, 1,018 copies of questionnaire were distributed to respondents and response rate recorded was 742(73%) which was used for data analysis. Data were gathered through self-designed questionnaire and were analysed using descriptive statistics of frequency count and percentages. Findings indicated that the level of information literacy skills among students of tertiary institutions in Borno State is low and majority of respondents agreed that their little ICT skills and literacy are impactful on their library usage. Based on the findings, it is recommended that more ICT awareness and training should be acquired by the students, especially from their institutions.

Keywords: Information literacy skills, ICT, Library use, Students, Tertiary institution

Introduction

Information literacy (IL) varies from source to source. However, the common denominator amongst many is that someone who is information literate can "recognise and articulate information needs; develop effective search strategies; select and use information retrieval tools; locate and retrieve information sources; analyse and critically evaluate information; organise and synthesize information; ethically use information for academic purposes. Hence, IL programmes are essential in producing graduates of critical thinkers and lifelong learners. Library and information literacy (LIL) instruction programmes are not new in many universities, and librarians have been the facilitators for a long time. However, what have been less familiar are the well-organised IL programmes that involve good planning in teaching and assessing IL instructions or education. Furthermore, as the concept of IL is evolving to include other literacies such as academic literacy, media literacy, digital literacy, visual literacy, and other literacies, it is unclear whether

IL programmes and curricula of the universities in South Africa have incorporated these new literacies (Ndou & Zimu-Biyela, 2023).

Library use is the constant utilisation of library resources by library user for the purpose of academic activities. The use of library by students of different category is to support, promote and enhance their academic performance. The use of library resources is the frequent use of information sources in the library by users which could be students, lecturers, or researchers. This involves the constant patronizing of the library, frequency of borrowing books, kinds, and age of information sources used. Information literacy and library use are both aspect that expose library resources to library user in non-print format. The library users are prepared for lifelong learning because they always find the information needed for any task or decision at hand. An information literate person can effectively access, evaluate, organise, synthesize and apply information from a variety of sources and formats in a variety of contexts to be able to achieve its intended use. One of the major reasons for the need for information literacy skills has to do with the rapid increase of media resources and the various methods of access (Ferdinand, 2011).

Information and communication technologies (ICT) is defined as a diverse set of technological tools and resources used in the library to purchase, organise, access, transmit, store, create, share or exchange information. Proficiency in these skills will make the students to patronize ICT section in the library. With the advent of ICT in library usage, numerous advantages have been brought to bear over the conventional manual method of operating the library. These advantages include proper cataloguing and accessibility of document using ICT facility in the library. The ease of navigating and searching of relevant library information using exact keywords either related to topics, authors or texts; the speed of using database for data entry, archiving, saving, retrieving, updating, querying of relevant information on the library books and it allow users to easily retrieve any data to perform analysis, derive findings and history on how well students are making use of the library and the consistency in record keeping without redundancy by the library workers (Nwokolo & Anyachebelu, 2012**)**.

Statement of the Problem

Despite numerous efforts by academic library, a preliminary investigation conducted on students' access and use of information resources and services revealed that most students seem not to be independent information seekers and users, and thus require the assistance of others to access information. This relates to challenges identified concerning the increasing decline in students' use of the library and its resources which was attributed to the difficulties students encounter in accessing library resources and services, including the use of electronic databases (Tachie-Donkor & Ezema, 2023).

In this age of information society, students are expected to know how to use the library and the available tools to retrieve any required information and to be able to carry out research work with minimal assistance. Sadly, though this seems not been the case as many students lack the requisite skills and knowledge to be able to use the library and the available tools to retrieve information. This is because many students especially in tertiary institutions of Borno State, as confirmed through preliminary investigation, do not have the facilities and adequate information literacy skills needed to perform this exercise. They spend most of their time in search of information and eventually come out with little or irrelevant result, thereby leading to poor academic performance (Whong, 2014). It is in view of the above, the study examines the influence of information and communication technology and information literacy skills on library use among students of tertiary institutions in Borno State.

Objectives of the Study

The specific objectives of the study were to determine:

1. the types of ICT facilities available in the libraries of tertiary institutions in Maiduguri, Borno State;
2. the level of information literacy skills among students of tertiary institutions in Maiduguri, Borno State;
3. the extent of ICT utilisation by students of tertiary institutions in Maiduguri, Borno State; and
4. the Influence of ICT on library use among students of tertiary institutions in Maiduguri, Borno State.

Review of Related Literature

A study conducted by Ilogho and Nkiko (2014) on information literacy search skills of students in five selected private universities in Ogun State, Nigeria revealed that, the study sample consists of 359 respondents drawn proportionately from a population of 400 from the selected universities. Descriptive survey method was used to elicit data through the Monash University Library. Questionnaire was the instrument for the study on Information Literacy. The data collected were analysed using simple percentages. It was found that preponderance of respondents has low knowledge of information literacy skills, showed high deficiency in identifying diverse information sources and the various information literacy programmes of the respondents' in the institutions. The study concluded that sound information literacy skills is a desideratum in knowledge acquisition in the twenty-first century and recommended inter alia; that information literacy skills be integrated into the secondary and tertiary schools' curricula.

Thus, the need for an enhanced and continuous library user education geared towards empowering students to be sufficiently familiar with information sources, mutual collaboration between teachers and librarians to ensure integrated mode of lecture delivery, constant advocacy and sensitization outreaches. Study conducted by Israel (2015) on undergraduates' computer skills and the use of online information resources revealed that, the study adopted descriptive survey method. Questionnaire was used to collect data for the study, and descriptive statistical method was used in analyzing the data collected and simple random sampling techniques were used to select the sample size for the study. The findings revealed that 98.5% agreed that Computer skills enhances their use of online information resources as well as being confidence in using online information resources due to their level of computer skills respectively.

The study also revealed that undergraduate students are computer literate. Also the findings revealed that majority of the participants frequently make use of online resources. The study recommends among others that there should be a conscious effort by the institution to improve the computer skills of its students since it affects their ability to use online resources. Study conducted by Iyanda, Opele and Akintunde (2016) on ICT literacy skills and Internet usage pattern of library users in Osun State college of education, Ila-Orangun, Nigeria shows that correlational research design was used for the study. Simple random sampling technique was employed, questionnaire was the instrument used for the study and data was analysed using mean and standard deviation. The result revealed that students preferred using Internet frequently than any other ICT facilities.

Methodology

Survey research design was used for the study. The population comprised of 17,517 undergraduate and postgraduate students, who were registered users of the three tertiary institutions libraries in Maiduguri, Borno State, Nigeria, which include Ramat Library, University of Maiduguri, Ramat Polytechnic Maiduguri Library and Ibrahim Musa Library, Sir Kashim Ibrahim College of Education, Maiduguri, Borno State. The sample size for the study comprised of 1,018 users across the three institutions, as presented in Table 3.1. The reason for selecting the three libraries for the study is because they were among the active academic libraries with ICT facilities in Borno State. To determine the sample size for the study, the researcher made

use of Krejcie, and Morgan (1970) table for determining sample size. According to Morgan table, for a population of 13,293, 2,703 and 1,521 a sample size of 370, 338 and 310 are appropriately determine respectively. Table 1 gave a detailed categorization of the study population and their respective sample size. The sample size from the three tertiary Institutions are shown below:

Table 1: Study Population and Sample

S/N	Universities Libraries	Population (Registered Users)	Sample
	Ramat Library, University of Maiduguri	13,293	370
	Ramat Polytechicnic Maiduguri, Library	2,703	338
	Ibrahim Musa Library, Sir Kashim Ibrahim College of Education, Maiduguri	1,521	310
	Total	**17,517**	**1,018**

Source: Membership registration files of the three institutions for 2019/2020 academic session

To draw the sample size from the population, systematic sampling technique was used to ascertain the respective sample of the study using Krejcie and Morgan (1970) sample size table. A self-designed questionnaire was used as the instrument for data collection. The instrument was face validated by the researcher's supervisors. For reliability of the instrument, pilot study was carried out using test re-test method on twenty (20) library users at Mohammed Goni College of legal studies Maiduguri, who were not part of the population under study. This is to ensure that the instrument has capability to answer the research questions. The correlation coefficient of r=0.86 was obtained using Pearson r and confirmed with Spearman-Brown. This is an indication of high correlation and therefore considered to be a reliable instrument for this study. The data collected were analysed and interpreted using descriptive statistics of frequency counts and percentages score. The results were presented in tables.

Data Analysis and Results

The response rate indicated that 1,018 copies of the questionnaire were administered on the registered library users with response rate of 742(73%). All were adequately filled and found usable for the analysis; a rate considered as adequate for the analysis.

Table 2: Demographic Distribution of the Respondents

Variables	Frequency	Percentage
Gender		
Male	425	57%
Female	317	43%
Educational Qualification		
NCE	304	41%
ND/HND	17	2%
Undergraduates	392	53%
Postgraduates	29	4%
Institutional Libraries		
Ramat Library University of Maiduguri	318	43%
Ramat Polytechnic Library	277	37%
Ibrahim Musa Library Sir Kashim College of Education	147	20%

Table 2 shows the gender, status and institutional library of the respondents with male 425(57%) males and 317(43%) females; indicating more males than females. Their status indicated that 304(41%) had NCE, 17(2%) ND/HND, 392(53%) are Undergraduates and 29(4%) Postgraduates. Thus, the undergraduates have the highest number in terms of qualifications. Across the institutional libraries, Ramat Library, University of Maiduguri had 318(43%), followed by Ramat Polytechnic Library with 277(37%) and Ibrahim Musa Library, Sir Kashim College of Education with 147(20%) respondents. This shows that Ramat Library has the highest number of respondents.

Table 3: Available ICT Facilities in the Respondents' Libraries

S/N	ICT Facilities	n	Available	Not Available
1	Computer Hardware-Personal Computer	742	694(94%)	48(6%)
2	Computers Connected to Internet		398(54%)	344(46%)
3	Multimedia		107(14%)	635(86%)
4	Scanner		521(70%)	221(30%)
5	Video cassette Recorder		397(54%)	345(46%)
6	CD-ROM		392(53%)	350(47%)
7	e-Books		417(56%)	325(44%)
8	Photocopier		621(84%)	121(16%)
9	OPAC		266(36%)	476(64%)
10	Teleconferencing		209(28%)	533(72%)
Total			**4022**	**3398**
Average			**402(54%)**	**340(46%)**

Table 3 shows the availability of ICT facilities in the libraries, with computer hardware-personal computer leading with 694(94%) respondents, followed by computers connected to Internet with 398(54%), scanner 521(70%), video cassette recorder, 397(54%), CD-ROM 392(53%), e-books 417(56%) and photocopier 621(84%), respectively. On the other hand, multimedia, OPAC, and teleconferencing are not available, which implies that 54% of the respondents indicated available for many ICT facilities in the libraries.

Table 4: Level of Information Literacy Skills among Student Respondents

S/N	Statements	N	HL	ML	LL	NL
1	Level of utilising ICT tools to access and search for information	742	381(51%)	291(39%)	57(8%)	13(2%)
2	Level of utilising use ICT tools to select information		7(1%)	118(16%)	408(55%)	209(28%)
3	Level of utilising ICT tools to evaluate information resources		106(14%)	311(42%)	318(43%)	7(1%)
4	Level of utilising ICT tools for integrating my search		117(16%)	286(39%)	321(43%)	18(2%)
5	Level of utilising ICT tools for accessing library databases (Science Direct, HINARI, ARDI, OARE)		124(17%)	297(40%)	304(41%)	17(2%)
Total			**735**	**1303**	**1408**	**264**
Average			**147(20%)**	**261(35%)**	**281(38%)**	**53(7%)**

Keys: High Level (HL), Moderate Level (ML), Low Level (LL), & No Level (NL)

Table 4 shows the level of ILS among the respondents using ICT tools to access and search for information, where 381(51%) indicated high level; 408(55%) used the tools to select and evaluate information

resources; 318(43%) to integrate search; 321(43%) to use library databases like Science Direct, HINARI, ARDI, OARE, 304(41%), respectively. This implies that only 38% respondents indicated low level, followed by 261(35%) indicating moderate level, and 147(20%) high level, while 53(7%) respondents indicated no level. Therefore, the level of ILS among the respondents revealed low extent.

Table 5: Extent of ICT Utilisation among the Student Respondents

S/N	Statement	N	HE	ME	LE	NE
1	Extent of utilising ICT for assignment	742	128(17%)	306(41%)	295(40%)	13(2%)
2	Extent of utilising ICT for information services		96(13%)	408(55%)	218(29%)	20(3%)
3	Extent of utilising ICT for reservation services		124(17%)	295(40%)	306(41%)	17(2%)
4	Extent of utilising ICT for library databases		106(14%)	323(44%)	302(41%)	11(1%)
5	Extent of utilising ICT for Zoom/Social network services		306(41%)	384(52%)	37(5%)	15(4%)
Total			**760**	**1716**	**1158**	**76**
Average			**152(20%)**	**343(46%)**	**232(31%)**	**15(2%)**

Keys: High Extent (HE), Moderate Extent (ME), Low Extent (LE) & No Extent (NE)

Table 5 shows the extent of utilisation of ICT by the respondents with the students utilising it for the purpose of assignment, 306(41%) respondents, the students utilise ICT for the purpose of information services 408(55%) respondents, the students utilise ICT for the purpose of library databases 323(44%) respondents and the students utilise ICT for the purpose of Zoom/Social network services 384(52%) respondents indicated moderate extent, while the students utilise ICT for the purpose of reservation services 306(41%) respondents indicated low extent. This implies that out of 742 respondents, majority with 343(46%) respondents indicated moderate extent, followed by 232(31%) respondents who indicated low extent, and 152(20%) respondents indicated high extent, while 15(2%) respondents indicated no extent. Therefore, the extent of utilisation of ICT by the respondents revealed moderate extent.

Discussion of the Findings

The findings revealed that personal computer, computers connected to Internet, scanner, video cassette recorder, CD-ROM, e-Books and photocopier were the available ICT facilities in the studied libraries. This is in line with the study of Whong (2014) who investigated application of ICTs to management of library information resources in selected Nigerian federal university libraries, with the findings revealing that computer, Internet, photocopy machines, scanning machines, CD-ROM and e-books were available. Similarly, the level of information literacy skills among the students was found to be generally low because using ICT tools to select information, evaluate information resources, integrate search, access library databases (Science Direct, HINARI, ARDI, OARE) all indicated low level. This finding was not in line with that of Obasuyi (2015) on ICT literacy skills and class instruction in a perception survey of University of Benin first year students, which revealed that, once students are educated in their first year on library website, online public access and library database, it would improve, promote and enhance their academic performance effectively and efficiently.

On extent of utilisation of ICT by the students, it revealed a moderate extent. However, its utilisation for the purpose of assignment, information services, accessing library databases and Zoom/Social network services were found to be at moderate extent. This finding agreed with Nbina, Obomanu, and Vikoo (2011) study on utilisation of ICT for quality instruction in Rivers State University of Education, Port Harcourt, which revealed that, utilisation of ICT for academic purposes in the university tends to improve and bring out quality performance of both staff and students in regards to information services.

Conclusion

From the findings, this study concludes that the extent of ICT utilisation by students of tertiary institutions in Maiduguri, Borno State was moderate, underscoring the fact that library users lack knowledge on how to utilise ICT for the purpose of reservation services in the library.

Recommendations

Based on the study's findings and conclusion drawn, the following recommendations are made for improvement:

1. The library management should provide multimedia, online public access catalogue and teleconferencing in the libraries so as to provide smooth and quality services delivery to the users.
2. The tertiary institutions' management should provide means of educating library users on how to search, select, integrate, access and evaluate information and library databases in order to promote library patronage.
3. The library management should make available reservation services in the library so as to create opportunity for users in order to be able to reserve library resources in advance.

REFERENCES

Ferdinand, U. C. (2011). Influence of ICT literacy skills on its application for library use among academic librarians in South-east, Nigeria. A Project Submitted in Partial Fulfilment of Master's Degree in Library and Information Sciences of the Library and Information Department, University of Nigeria Nsukka). 1-79.

Ilogho, J. E., & Nkiko, C. (2014). Information literacy search skills of students in five selected private universities in Ogun State, Nigeria: A survey. Library Philosophy and Practice (e-journal). Paper 1040. Retrieved on 10th April, 2023 from: http://digitalcommons .unl.edu/libphilprac/1040

Israel, O. (2015). Undergraduates' computer skills and the use of online information resources: A case study of library and information science students of Delta State University, Nigeria. Journal of Library & Information Science, 5(4), 770-782.

Iyanda, D. F., Opele J. K., & Akintunde, B.O. (2016). A study of ICT literacy skills and Internet usage pattern of library users in Osun State College of Education, Ila-Orangun, Nigeria. FUTA Journal of Management and Technology Study Literacy Skills and Internet, 3(4), 137-149.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 2(1), 1-35.

Ndou, A. S., & Zimu-Biyela, A. N. (2023). The opportunities and challenges of integrating information literacy as a credit-bearing module into first-year academic programmes. Regional Journal of Information and Knowledge Management, 8(1), 187-210.

Nwokolo, A. A., & Anyachebelu, E. F. (2012). Availability and use of information and communication technology resources for counselling university students in South-east, Nigeria. International Journal of Humanities and Social Sciences, 2(7), 220–225.

Obasuyi, L. O. (2015). Information and communication technology literacy skills and class instruction: A comprehensive perception survey of University of Benin first year students. Nordic Journal of Information Literacy in Higher Education, 7(1), 63-79.

Tachie-Donkor, G., & Ezema, I. J. (2023). Effect of information literacy skills on university students' information seeking behavior and lifelong learning. Heliyon (Science Direct), 9, 1-11.

Whong, F. M. (2014) Application of information and communication technologies (ICTs) to management of library information resources in selected Nigerian federal university libraries. Journal of Information and Knowledge Management, 2(3), 42-51. Retrieved on 10th January, 2021 from: http://hdl.handle.net/123456789/7113.

AUTHORS' PROFILES



Sa'idu Yakubu UMAR obtained my first and second degrees at the University of Maiduguri in 2014 and 2023. He worked as data processing officer at Computer and ICT Centre, University of Maiduguri from April, 2015. He is currently a Higher Data Processing Officer while his area of my specialisation is Information Science.



Bukola AGBOOLA obtained his first and second degrees at the University of Maiduguri in 2010 and 2021. He worked as Assistant Librarian to Librarian I under e-Library Division at Federal University Gashua, Yobe State from August, 2015 to February, 2024. He was the Head of e-Library from February 2022 to February 2024 and is currentlyan Assistant Lecturer in the Department of Library and Information Science. My area of specialisation is Information Science.



Umar ABBA obtained his first degree from the University of Maiduguri in 2012. He worked as Assistant Librarian and Graduate Assistant at Ramat Library, University of Maiduguri from October 2015 till date. He is currently a Graduate Assistant, with areas of specialisation being Cataloguing and Classification.

Citation: This article is to be cited as: Saidu. U. Y., Bukola, A., & Umarm, A. (2024). Influence Of Information and Communication Technology and Information Literacy Skills on Library Use Among Students of Tertiary Institutions in Borno State, Nigeria. Fugus International Journal of Library and Information Science (FIJLIS), 1(1), 34-41.