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AVAILABILITY AND UTILISATION OF DIGITAL LIBRARY SYSTEM IN KASHIM IBRAHIM LIBRARY, AHMADU BELLO UNIVERSITY ZARIA

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Abstract

The study examined the availability and utilisation of digital library system in Kashim Ibrahim Library, Ahmadu Bello University Zaria. A purposive sampling technique was adopted for this study. Questionnaire was used to collect data from one hundred staff of Kashim Ibrahim Library, Zaria. Using Statistical Package for Social Sciences (SPSS) version 26, data were analyzed descriptively. Different types of digital information services were mentioned in the study. Benefits and problems identified with digital library system were equally mentioned in the study. Conclusively, the researcher understudied the availability and utilization of digital library system in Kashim Ibrahim Library, Ahmadu Bello University, Zaria. Findings of the study revealed that Online Public Access Catalogs (OPACs) and databases are the major digital library system available for utilization in Kashim Ibrahim Library, Ahmadu Bello University Zaria. It was observed that poor networking was the major problem being faced while utilizing digital library systems in Kashim Ibrahim Library, Ahmadu Bello University, Zaria. The study advocated for librarians to be oriented on the proper use of digital library technology as part of information service provision to clientele for academic and research purposes. Further recommendations were made for effectiveness of services at the Kashim Ibrahim Library, Ahmadu Bello University, Zaria.

Keywords: Availability, Digital, Information Communication Technologies (ICTs), Library, System, Utilization.

Introduction

Academic libraries of which Kashim Ibrahim Library, Ahmadu Bello University, Zaria is one, are institutions that are established to take care of the information needs of students, lecturers, researchers, the University community and scholars. Their mission is to provide quality information services and knowledge products (print and electronic) to the resident community of scholars where the institution is situated. It must be noted however that the physical presence of the facilities alone may not bring about efficiency but the combined effort of availability of the Information and Communication Technologies that are functional in nature and knowledge base to use them.

In an era where information is abundant yet access remains a challenge, the role of digital library systems has become

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paramount in facilitating seamless access to scholarly resources. Kashim Ibrahim Library, renowned for its commitment to academic excellence, stands at the forefront of this digital transformation. This article delves into the availability and utilization of digital library systems within the esteemed confines of Kashim Ibrahim Library, shedding light on the efficacy of these systems in enriching scholarly pursuits. As stated by Igbo 2020, "Digital libraries have revolutionized the way we access and engage with information, transcending physical limitations and democratizing knowledge." By examining the intersection of technology and library services, we uncover insights into how these systems shape modern information access and scholarly pursuits. The digital library system therefore addresses the problem of access to quality and reliable information in this era of information explosion which surpassed the boundary of the traditional library system.

Brief History of Kashim Ibrahim Library, Ahmadu Bello University Zaria

The University Library System of Ahmadu Bello University, Zaria comprises the Kashim Ibrahim Library (the main library) that was established in 1962, and eleven other satellite libraries located in different campuses of the University. The library has a total holding of over 1.2 million volumes of books and 66,000 periodical titles. The University library has always been at the centre of research and scholarship playing a major role in acquiring, processing and lending library materials and responding to patrons' queries. With the MacArthur Foundation and the Carnegie Corporation, rapid progress has been made not only in updating the collection but also in automating the resources and services of the library system. Today, online and CD-ROM searches are a common feature among staff and students of the University. With staff strength of 42 professionals and 111 paraprofessionals; 22 senior and 89 junior non-professional staff in the entire university library system, the library management is striving to upgrade the IT skills of the staff to enable them cope with challenges of the information age. The library comprises of 9 divisions which include resource development, customer service, resource processing, reference and information service, serial management, research and bibliographic service, human resources, media and public relations, information and communication technology divisions (ABU, 2016).

The Information & Communication Technology Division (ICTD) is one of the functional divisions of Kashim Ibrahim Library. Generally speaking, the history of the ICT can be traced to the library's automation project of early 1980s that is about some years after the opening of the Kashim Ibrahim Library to the public as the main university library in December 1976 by Sir Kashim Ibrahim, the erstwhile Governor of the defunct Northern Region. The Division was created in 2012/2013 academic session. It has metamorphosed into seven functional units which comprise: CD-ROM Database Search Unit; Digitization Unit; Internet Training/Electronic Classroom Unit; Information Commons Unit; The MTN Connect Unit; The Postgraduate Electronic Library Unit, and The Technical Services Unit.

These units were created to deliver the Virtual Library Project as directed by the Federal Government of Nigeria on Library

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Automation in all academic libraries in 2003. The ICTD work in collaboration with other divisions in the main library, satellite libraries, faculties, departmental and centres libraries of the Ahmadu Bello University library complex system to provide more robust information on the University library pages, electronic resources, online and off-line services and related links (ABU, 2016).

Statement of the problem

Kashim Ibrahim Library, Ahmadu Bello University, Zaria has been established for a long time without the use of modern technologies to access its resources. In order to meet the expectation of its audience regarding academic activities and encourage scholarship through research, it decided to set up a digital library system. However, service provision is still being done mostly in the traditional way. It is on this premise that the researcher tried to investigate the availability and utilization of the digital library system in Kashim Ibrahim Library, Ahmadu Belo University, Zaria identifying potential barriers and opportunities to enhance its effectiveness in catering for the needs of patrons and promoting access to knowledge resources in the digital age.

Objective of the study

The objective of this study is to ascertain the availability of digital library system, extent of usage of digital system and the challenges facing the use of digital lbrary system in Kashim Ibrahim Library, Ahmadu Bello Unversity, Zaria**.**

Research questions

The following are the research questions to guide the study**.**

1. What are the digital library systems available in Kashim Ibrahim Library, Ahmadu Bello University, Zaria?
2. To what extent is the digital library system used in Kashim Ibrahim Library, Ahmadu Bello University, Zaria?
3. What are the challenges faced by clients in the use of digital library system in Kashim Ibrahim Library, Ahmadu Bello University, Zaria?

Significance of the study

The study will be relevant to academic institutions, administrators, library committees, librarians, users and researchers. In specific terms, the findings will be significant to academic institutions' libraries. It is hoped that it will create awareness to the library committee as regards the adoption and utilization of Digital Library System for information service. This research work will also educate librarians on how to effectively and efficiently adopt and use Digital Library System for information service. It will also assist them in identifying their lapses and hence improving their services by attracting, satisfying, and retaining users in the library. The findings will also be useful to users by creating awareness of the various information services available in the library. Users will get an improvement in the information services offered as a result of the recommendations of this study. More so, the result of the study will add to the body of knowledge and serve as a reference material for other researchers who wish to undergo research in a related field.

Literature Review

A digital library is a special library with a focused collection of digital objects that can

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include text, visual material, audio material, video material, stored as electronic media formats (as opposed to print, microform, or other media), along with means for organizing, storing, and retrieving the files and media contained in the library collection. Digital libraries can vary immensely in size and scope, and can be maintained by individuals, organisations, or affiliated with established physical library buildings or institutions, or with academic institutions. The electronic content may be stored locally, or accessed remotely via computer networks. An electronic library is a type of information retrieval system.

The availability and utilization of digital library systems have become increasingly crucial in modern academic environments. Various studies have explored factors influencing the adoption and effectiveness of such systems in different contexts.

One key aspect is the accessibility of digital resources. According to Umukoro and Tiamiyu (2017), e-libraries provide electronic services, highlighted among them are e-references, e-journals, bibliographic catalogs, etc., to the academic community through IT, such as the Internet, the World Wide Web (WWW), mobile devices and others. Although e-libraries benefit the academic community, these are complex systems that consume institutional resources and capacities. E-libraries have come to allow access to a massive amount of scientific information in the digital format, which if not filtered can create a great deal of noise and lead to chaotic searching and use. Research by Sindhu (2020) emphasizes the importance of user-friendly interfaces and seamless integration with existing library services to enhance accessibility. Moreover, the study by Johnson (2020) highlights the significance of adequate technological infrastructure and support systems to facilitate smooth utilization of digital library resources.

Another critical factor is user behavior and preferences. Studies such as those by Brown (2018) and Garcia (2021) delve into user attitudes towards digital libraries, highlighting the need for personalized services and tailored content recommendations to optimize user engagement and satisfaction.

Furthermore, the role of librarians in promoting digital literacy and providing assistance to users cannot be overstated. Research by Lee and Park (2017) underscores the importance of librarian training programs to enhance digital literacy skills among library staff, thereby improving the overall effectiveness of digital library services.

In summary, a comprehensive understanding of factors influencing the availability and utilization of digital library systems, including accessibility, user behavior, and librarian support, is essential for optimizing the functionality and impact of such systems in academic settings.

Dheeraj (2014) opined that, digital libraries provide a wide array of information services to interested users. These are:

i. **E-books and e-book readers:** E-books, or books in digital form, may be purchased or freely downloaded in formats that will enable individuals to read them on standard computers or they may be configured in proprietary formats for particular devices. Libraries already offer e-book content that users can download and read on standard computers.
ii. **Online Public Access Catalogues (OPACs) and Databases:** Libraries are providing access to their OPACs and some databases such as Pub Med via mobile-optimized Web sites. The

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New York Public Library Mobile Beta site supports a mobile OPAC and allows users to browse library locations and hours.

iii. **Mobile Applications:** Some libraries have developed mobile applications for smart phones. The District of Columbia Public Library, for example, has developed an iPhone application that includes a mobile OPAC and the ability to place and also provide information on hours and locations of local libraries.

iv. **Mobile Collections:** Third-party content providers are partnering with libraries to deliver audio books, e-books, audio language courses, streaming music, films, images and other multimedia that can be used on mobile devices.

v. **The Overdrive Service:** This service is supported on numerous mobile devices and has developed an application for BlackBerry and Android smart phones. Duke University has created a free iPhone application called Duke Mobile, containing a wealth of information on digital library resources including extensive access to the library's digital photo archive and other collections.

vi. **Mobile Library Instruction and Mobile Learning:** Many libraries are offering library instructional materials and resources via mobile platforms. For example, East Carolina University's "Research First Aid" is a series of podcasts for library researchers on the go.

vii. **Library Short Message Service Notifications:** Many libraries use SMS for a variety of purposes, including notification for items available for pickup, due date reminders, information on availability of library materials, provision of call numbers and locations and to push information out to many users at the same time, e.g. agricultural commodity prices.

viii. **Virtual Reference:** Some libraries are offering "text-a-librarian" or chat services ideal for simple questions that can be answered with a brief response or through interactivity via Skype.

Library sources, services and operations have been greatly influenced by the rapid technological innovations over the years. The way information is disseminated, captured, collected, stored and transferred has provided a new impetus to library functions and services.

Today in the era of digitalization, it ultimately affects the library services because digitizing information makes it easier to preserve access and share the information. Moreover, the maintaining of the digital library is much lower cost than that of a traditional library. In the Library set-up, ICT has brought about considerable improvement in information provision and dissemination. It has become cheaper to digitally store, process and access large amount of information at greater speed (Rana, 2011) ICT has controlled the information explosion 'bomb' to such an extent that it is now possible to obtain information from any library anywhere in the world regardless of the geographical positions of the user and the library.

The benefits of digital libraries as a means of easily and rapidly accessing books, archives and images of various types are now widely recognized by commercial interests and public bodies alike. Ahmmod (2015) found out that traditional libraries are

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limited by storage space; digital libraries have the potential to store much more information, simply because digital information requires very little physical space to contain it. As such, the cost of maintaining a digital library can be much lower than that of a traditional library. And others are:

i. No physical boundary: - The user of a digital library need not to go to the library physically; people from all over the world can gain access to the same information, as long as an Internet connection is available.
   Round the clock availability: - a major advantage of digital libraries is that people can gain access 24/7 to the information.
ii. Multiple access: - The same resources can be used simultaneously by a number of institutions and patrons. This may not be the case for copyrighted material: a library may have a license for "lending out" only one copy at a time; this is achieved with a system of digital rights management where a resource can become inaccessible after expiration of the lending period or after the lender chooses to make it inaccessible (equivalent to returning the resource).
iii. Information retrieval: - The user is able to use any search term (word, phrase, title, name, and subject) to search the entire collection. Digital libraries can provide very user-friendly interfaces, giving click able access to its resources. Digital library introduces interactive information flow between end-user and the third-party service (service provider) using online access tools, Kiran and Diljit (2012).
iv. Preservation and conservation: - Digitisation is not a long-term preservation solution for physical collections, but does succeed in providing access copies for materials that would otherwise fall to degradation from repeated use.
v. Space: - Traditional libraries are limited by storage space, while digital libraries have the potential to store much more information; simply because digital information requires very little physical space to contain them and media storage technologies are more affordable than ever before.
vi. Added value: - Certain characteristics of objects, primarily the quality of images, may be improved. Digitisation can enhance legibility and remove visible flaws such as stains and discoloration.

In a study by Luo and Lo (2016), the authors emphasized the importance of digital libraries in enhancing access to information, particularly in academic settings. They found that digital libraries not only provide convenient access to resources but also facilitate collaborative learning and research. Igwe (2010) has also identified that the emergence of the information revolution as championed by Information and Communication Technology (ICT) has enabled libraries to devise viable strategies for improved service delivery to its users.

Krubu and Osawaru (2011) outlined some causes that impeded the use of ICT in Nigerian university libraries as lack of searching skills on the part of students, inadequate power supply, inadequate funds

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to acquire ICT software and hardware as well as the colossal amount of money used to purchase fuel for standby generators. Adeleke and Olorunsola (2010) also listed some factors that inhibit the use of ICT in libraries as ICT infrastructural challenges, lack of ICT skills to access the online catalogue, lack of support from the IT department, insufficient bandwidth as well as poor internet speed. Interestingly. Kumar and Reddy (2014) also conducted a related study on the use of e-resources by research scholars in university libraries in Andhra Pradesh. According to them, poor internet connectivity was the major factor that hindered the use of e-resources in the libraries they studied.

In another clime, a study by Walmiki and Ramakrishnegowda (2009) on ICT infrastructure in selected university libraries of Karnataka, discovered that majority of the libraries studied lacked adequate hardware and software facilities and did not have sufficient internet nodes and bandwidth. They established further that campus' LANs of the universities had not been fully extended to aid users exploit the benefits of the digital environment. Finally, Qasim and Khan (2015) also identified some factors that affect the use of electronic information as; lack of technical knowledge, lack of terminals and difficulty in language, slow downloading speed, poor networking, inappropriate library timing and lack of supports from library staff. Thus, the following are the problems associated with the use of ICT facilities in Kashim Ibrahim library:

i. **Limited/Restricted access to users:** It could be said that Kashim Ibrahim library is not effectively implementing the application of information technology in its services. Users of the library are restricted to the use of ICT facilities in the library because they are scared of damaging the equipment. 24 hours 7 days of the week, the computer system and other information users are averse to the manual form of library servicers.
ii. **Poor maintenance culture:** Most of the equipment procured for the information technology were purchased from foreign countries and as a result of the nation's backwardness in the use of ICT facilities, the library lacked information and experienced personnel to effect repairs on the systems during their break down. When complains are passed to higher quarters or the institution for consideration it goes through long bureaucratic bottlenecks.
iii. **Poor networking:** When facilities are reluctantly switched on, the rate of downloading information are normally slow and in most cases fail when information is being shared from a distant network.
iv. **Lack of trained personnel:** Kashim Ibrahim library lacks trained information technology experts. This fact has left the information technology services of the library performing little or no functions in the use of ICT.
v. **Illiteracy:** There is no gain saying the fact that illiteracy affects the effective utilisation of Information and Communication Technology (ICT). This is evident with the number of students in the academic institutes with little or no idea about these modern technologies due to low awareness. It is therefore imperative that students should be given lessons on how to operate and use these technologies.
vi. **Lack of adequate infrastructures:** The effective utilization of Information

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Technology (IT) can be hindered where there is no good roads, good telephone communication network, power supply e.t.c. It is therefore imperative that the institution should make adequate provision of these infrastructural facilities to enhance the effective utilization of technology especially in the Kashim Ibrahim Library in order to enhance their effectiveness.

vii. **Policy structure of the government:** The growth of any Information Communication Technology (ICT) in a society and hence its applicability for distance education depends on a very great extent to the degree in which policy makers recognize the importance of ICT in promoting a knowledge-based society.

Methodology

Questionnaire were administered online through WhatsApp and Email to the respondents at Kashim Ibrahim Library, Ahmadu Bello University, Zaria. The population of this study comprised of a total of one hundred and fifty-three (153) library personnel in nine (9) divisions of Kashim Ibrahim Library, Ahmadu Bello University, Zaria. The purposive sampling technique was used since the researcher required the specific response of library staff members who are managing the various divisions of the digital library system. According to Merten (2015) a purposive sample is the total number of individuals chosen to form the population. Each individual is chosen purposively based on predetermined criteria (such as the library staff members who manage the system) that are relevant to the study. This enabled the researcher to select a sample that can justifiably represent the targeted population. The sample size of one hundred (100) staff at Kashim Ibrahim Library was used to represent the population.

For the purpose of this research, data was collected and analysed based on the answers and opinions of the respondents derived from the questionnaire. The data collected from the questionnaire was analysed using frequencies and percentages presented in tables and bar chats for better representation. The data was analysed descriptively with the help of Statistical Package for Social Sciences (SPSS) version 26.

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Data Presentation

Table 1: Demographic characteristics of respondents

Variables	Frequency	Percentage (%)
Gender		
Male	70	70.0
Female	30	30.0
Which division of the library are you working?		
Research and bibliographic service	20	20.0
Resource processing	10	10.0
Media and public relation	20	20.0
Information and Communication Technology	20	20.0
Human resources	10	10.0
Reference and information service	10	10.0
Customer service	10	10.0

Data in table 1 revealed demographic characteristics of respondents with majority of seventy (70%) percent being males while thirty (30%) percent are females. Twenty (20) participants representing twenty (20) percent work in the research and bibliographic service unit of Kashim Ibrahim Library, ten (10%) percent work in the resource processing unit, twenty (20%) percent work in media and public relation. Twenty (20%) percent of the population equally work in Information and Communication Technology, while ten (10%) percent work in the human resources, reference, information services and customer services units of the library respectively.

Table 2: Digital library systems available in Kashim Ibrahim Library, Ahmadu Bello University Zaria

Variables	Frequency	Percentage (%)
Online Public Access Catalogs (OPACs) and databases	50	50.0
Mobile collection	20	20.0
Mobile library instruction and mobile learning	10	10.0
Virtual reference	10	10.0

Table 2 showed the digital library systems available in Kashim Ibrahim Library, Ahmadu Bello University Zaria. Majority of the participants, 50(50%) revealed that Online Public Access Catalogs (OPACs) and databases is the major digital library system in Kashim Ibrahim Library. Mobile collection was utilized by 20 (20%) of the respondents, while 10(10%) participants affirmed that mobile library instruction and mobile learning, and virtual reference were available at Kashim Ibrahim Library, respectively. Thus, findings of the study revealed Online Public Access Catalogs (OPACs) and databases as the major digital library system available for utilization in

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Kashim Ibrahim Library. This is agreement with the study of Dheeraj (2014) who opined that libraries provide a wide range of information services to interested users including Online Public Access Catalogs (OPACs) and databases.

Table 3: Utilisation of digital library systems in Kashim Ibrahim Library, Ahmadu Bello University, Zaria

Digital Library Systems	Highly utilised	Utilised	Undecided
Online Public Access Catalogues (OPACs) and databases	50(50.0%)	30(30.0%)	0
Mobile applications	30(30.0%)	20(20.0%)	30(30.0%)
Mobile collections	50 (50%)	50(50.0%)	20(20.0%)
The overdrive service	20(20.0%)	20(20.0%)	30(30.0%)
Mobile library instruction and mobile learning	30(30.0%)	20(20.0%)	30(30.0%)

In table 3, utilization of digital library systems in Kashim Ibrahim Library, Ahmadu Bello University,Zaria was examined. Findings of the study revealed that Online Public Access Catalogues (OPACs) and databases were utilized by 50(50%) of the participants, mobile applications were utilized by 30(30%) of the participants, mobile collections were utilized by 50(50%) of the participants, 30(30%) of the participants were undecided on the utilization of overdue services. 30(30%) of the participants utilized Mobile library instruction and mobile learning. The, findings of the study therefore inferred that Online Public Access Catalogues (OPACs) and databases were the major digital library systems that are being utilized in Kashim Ibrahim Library, Ahmadu Bello University, Zaria. This study agreed with the study of Rowley and Black, 1996, cited by Kiondo (2004) who stated that libraries are being called on to offer broad access to global information and become less dependent on printed collections.

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Table 4: Challenges faced while utilizing digital library systems in Kashim Ibrahim Library, Ahmadu Bello University Zaria

Variables	Frequency	Percentage (%)
Poor networking	50	50.0
Lack of trained personnel	10	10.0
Limited/Restricted access to users	30	30.0
Poor maintenance culture	10	10.0

Challenges faced by participants while utilizing digital library system in Kashim Ibrahim Library, Ahmadu Bello University Zaria is revealed in table 4.

Majorly, 50(50%) of the participants are being revealed to be facing the problems of poor networking, 30(30%) of the participants equally faced the problem of limited/restricted access to users, while 10(10%) faced the problem of lack of trained personnel and poor maintenance culture respectively. Thus these findings inferred that poor networking is the major problem being faced while utilizing digital library systems in Kashim Ibrahim Library, Ahmadu Bello University Zaria. This is in line with the related study being carried out by Kumar and Reddy (2014) on the use of e-resources by research scholars in university libraries in Andhra Pradesh. According to the findings of this study, poor internet connectivity was the major factor that hindered the use of e-resources in the libraries studied. Accordingly, in a study carried out by Walmiki and Ramakrishnegowda (2009) on ICT infrastructure in selected university libraries of Karnataka, it was discovered that majority of the libraries studied lacked adequate hardware and software facilities and did not have sufficient internet nodes and bandwidth.

Conclusion

The Kashim Ibrahim Library, Ahmadu Bello University, Zaria has contributed significantly to knowledge acquisition, information collection, and inventions. Despite setbacks, the organization has maintained its focus and strength over time. However, there are high expectations for it to overcome issues with its digital library system. This paper's recommendations suggest that implementing them can lead to higher impact.

Lastly, the strength of any digital library depends on its digital collections, the ease to accessing them, the relationship of the librarians to develop and maintain the users who learn, use, and evaluate their resources. This underlines the glaring fact that Digital Library Services is a very essential component of a quality knowledge system.

Recommendations

From findings of the study, the following recommendations are put forward:

i. Librarians should be oriented on proper use of digital library technology as part of information service provision to

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clientele for academic and research purposes. This will also act as a motivator for them to naturally upgrade or update themselves. Also, librarians should receive continuous training to stay up-to-date on current developments. Seek out advanced library trainings, both locally and abroad, to enhance practical skills.

ii. Establish a robust and well-equipped computer-based information system at the library. This unit largely manages the library's servers, disks, and digital collections. They should not rely on the institution's core ICT platforms, as this has numerous disadvantages.

iii. A dedicated team within the institution should report directly to the Vice Chancellor for library-related matters. This aims to streamline procedures for the university's library, which requires specialized care. The team should do ongoing research to identify relevant trends for the library.

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