Original Article   *Available online at www.bpasjournals.com*

Present Status of Information and Communication Technology in Nigerian Academic Libraries: A Review of Literature

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ABSTRACT

Application of information and communication technologies to academic libraries has brought remarkable improvement to various services offered by the library, ICT has improved efficiency and influenced changes from storehouses to knowledge management centers, however application of ICT in developing economies like Nigeria is still in budding stage, application and utilization of ICT is marred with various challenges, this paper attempts to review the status of ICT in academic libraries of Nigeria keeping in view benefits, challenges, ICT competence of library and information science professionals. it is hoped that the present studies will guide the library and information professional and management staff on effective application of ICT, understanding the need and relevance of ICT skill acquisitions by the library and information science professionals.

KEYWORDS: ICT, Application, Utilization, Academic libraries, Nigeria.

INTRODUCTION

The term information and communication technology has become synonymous with our everyday affairs, application of information and communication technology to all aspects of human endeavors have greatly influenced changes in the society, ICT has assumed a significant position in the affairs of man across the universe. this impact is also felt by libraries all over the world, most especially academic libraries, academic libraries are charged with providing relevant material or information resources to meet its users' quest for knowledge. There is no better way of achieving the set objectives without the effective application of ICT in academic libraries, despite the derived benefits the application, and use of ICT is still in the budding stage particularly in the cases of countries with developing economies like Nigeria.

As inferred from the fifth law of library science that 'library is a growing organism', librarians are always found to be interested in adopting latest technologies to provide better and efficient services

to the patrons, Nowadays libraries use various types of technologies to perform library operations and deliver services to their users, technical, reference, administrative, readers services, virtually all the services provided by the libraries are now being rendered with aid of information and communication technology, but this is not the case in Nigeria academic libraries there are several barriers impeding effective application of ICT in Nigerian academic libraries such as lack funding, lack of ICT skills, power outage, etc.

After perusal of literature based on ICT application and utilization in Nigerian academic libraries, it was found that most of the work was carried out on different segment or section such as ICT application on circulation, reference, information resources, technical etc, none of the literature systematically covered all areas or section as one entity keeping in focus the application and availability of ICT in Nigerian academic libraries.

The aim of this paper is to present the descriptive literature review (the abstract section of the source papers) and integrative literature reviews (reference the conclusion) on different facets of ICTs application with emphasis on academic libraries in Nigeria as revealed in the literature available online.

REVIEW OF RELATED LITERATURE

A lot of articles exist on various facets of information communication technology application and utilization in Nigerian academic libraries. the scope of this study is limited to the articles published from 2010 to 2019 in various journals by Nigerian authors, therefore the present review focuses on the comprehensive report published on Nigerian academic keeping in view of the relationship between ICT and Nigerian academic libraries, impact, status, challenges, and benefits.

Krubu & Samaru[1] discussed the impact of ICT in Nigerian academic libraries using two libraries in the Edo state of Nigeria as Case study, the study elicits that only three divisions of the understudied libraries were computerized/automated, the authors emphasized that ICT has an enormous impact on library service effectiveness, they concluded that ICT adoption and use in Nigerian academic libraries is faced with mirage of Challenges.

Halisco[2] investigated factors responsible for use of information and communication technologies in southwestern Nigeria libraries, the author attributed the factors to lack of ICT skills by staff, erratic power supply, lack of commitment by the management of the institution, lack of ICT strategy, lack of funds and the author made recommendations accordingly.

Okiy[3] gave an overview of Information and Communication Technology, its limitation and its future outlook with a purpose to assist LIS professionals in maintaining the status quo in the society and channeling energy and resources to ICT adoption.

Egunjobi & Awoyemi[4] discussed the various challenges and constraints faced by libraries in Nigeria in development of Library automation systems to include: poor funding, poor ICT infracstrucutre,poor ICT skills among library staff,the paper further gave the benefits and positive revolution ongoing in libraries across Nigeria towards the adoption of Koha open source software as welcome development

Abubakar[5] surveyed six Nigerian university library schools and found that ICT facilities are available to some extent and been utilized for some activities, the author iterate that there is the need for acquisition of more ICTs and concluded that ICTs need to be integrated into Nigerian library school curriculum.

Onuoha & Chukwuemeka[6]   describes a vivid scenario of ICT application in academic library service as an emergent trend in the present 21st century, he asserts that recent changes in academic libraries are championed by ICT adoption and that despite the benefits of ICT application in academic library

service, Nigerian academic libraries are yet to fully apply ICTs in their services and in some cases where there is minute application its utilization is faced with challenges, the authors concluded by recommending full of ICT in academic libraries to enhance effective and efficient library service.

Madu & Azubogu[7] investigated the impact of ICT application on information dissemination in selected libraries of federal universities in south-south Nigeria, the findings showed that ICT has impacted a lot of activities in the libraries especially areas such as reference services, current awareness, bibliographic search, cataloging, classification, and lending services, but the surveyed libraries had inadequate ICT facilities, inadequate internet facilities, low level of ICT skills by librarians, lack of ICT policies, the study made recommendations accordingly.

Abba[8] opined that the application of ICT in securing information resources is a necessity, to prevent against theft, mutilation, and damages to library resources, the study reviewed various literature regarding ICT devices used in securing information resources, causes of insecurity and challenges faced by libraries in providing security to information resources, he concluded by stressing the importance of orientation, training of library personnel to handle ICT facilities and formulation of security policies to prevent against theft and mutilation of library resources.

Enakrire & Ocholla[9] compared the use of information and communication technologies for knowledge management in academic libraries of Nigeria and South Africa, the authors assert that library and information professionals in 21st century are knowledge workers that are to intensify the management of explicit and tacit knowledge for the organizational growth of libraries, the authors found availability and accessibility of ICTs for knowledge management in both countries varied, infrastructural support has affected some university libraries in one country than the other country.

Kelvin, et al[10] x-rayed challenges of managing university libraries in the contemporary digital environment, the paper highlight the challenges to include but not limited to demands for new skills, cost/funding, managing of new generation of learners, lack of skilled manpower, lack of confidence in the face of increasingly information technology, lack of maintenance culture, resistances to changes.

Asogwa, et al[11] enumerated the benefits of internet service in academic libraries, how it is obscuring print resources. The authors discussed the impacts of internet service over print resources in an academic environment and emphasized ICT as the backbone of internet usage.

Ezekwe[12] investigated utilization and availability of information communication technology by undergraduate student in university library of Anambra state the finding showed ICT resources were available but the use was manned by constraints such as lack of ICT knowledge by the student, limited work station and poor service delivery, the research concluded by making recommendation like expansion of ICT facilities and adequate financial base training of student on the use of ICT components, providing reliable power, placing the internet service on regular subscription and employing experienced digital librarian to manage the ICT unit of the library.

Oyekun[13] et al enumerated the importance of ICT and opined that academic libraries are the most equipped in terms of ICT infrastructure but for the ICT infrastructure to be effectively utilized, library staff must be competent in the use of ICT tool and found that library staff in selected universities in the Kwara state of Nigeria are competent on basic and intermediate skill, the authors concluded by identifying constraints to ICT skill acquisition and made suggestion accordingly.

Magoi & Gani[14] discussed the emergence, benefits, development and as well as objectives of digital libraries in Nigerian Universities with specific reference to Northwest Nigeria. The authors concluded by emphasizing the importance of digital library initiatives and collaboration in the Nigerian context.

Tella & Oyegunle[15] compared website content of top universities in Nigeria and South Africa and found out that SouthAfrican university libraries are ahead of their Nigerian counterparts in terms of

integration of Web2.0 tools and opined that the relevance of the study is to provide an insight and idea on the features of tools and applications to be included on university library websites.

Osinulu & Amusa[16] discussed the roles of information technology and quality assurance in effective and efficient library services in Nigerian academic libraries, the authors went further to outline issues relating to IT and quality assurance in academic libraries.

Ayim[17] assessed ICT literacy skills of digital library users and staff of Salem University Lokoja, the study found that staff and users need to upgrade their ICT skills, despite the availability of ICT resources and facilities.

Otulugbu[18] highlighted the essential role of social media in information dissemination in Nigerian university libraries, he found out that the most prominent social media used for service delivery in selected Nigerian university libraries include Facebook, Whatsapp, Flickr, youtube and instant messaging and concluded by suggesting the need to filter irrelevant content from social media.

Ezema & Chizoba[19] investigated electronic support services of law students in selected universities in Nigeria and found out the law students were aware of and could access e-resources such as CD ROMS, law pavilion,open-access journal, e-magazines Doaj, Jstor and Lexis-Nexis however the core legal e-resources appear to be inaccessible to users. the study recommends that there should be a regular subscription to important law databases that were beneficial.

Ogar & Tangkat[20] asserts that library and information services have transformed because of innovations in information technology and that the impact is enormous and felt in the way libraries offer their service in this 21st century.

Jerome, *et al.,*[21] discussed the application of web 2.0 to library and information centers its implications to developing countries like Nigeria, the authors further asserts that policies should be implemented to maximize adoption of web 2.0 application in developing countries.

Ihekwoba & Okwor[22] conducted a survey to determine the competency requirements and acquisitions among catalogers in six selected university libraries in Nigeria and found out that cataloger require information management competency, proficiency with computer applications maneuverability and use of cataloging databases, the paper further depicts that library and information professionals in the understudied libraries had basic ICT skill relevant to cataloging, the study concluded by making recommendations for improvement.

Bassey[23] conducted a survey and discovered that Koha was the most widely adopted software in Nigerian university libraries and that level of automation in Nigerian university libraries is very low, the author concluded by making recommendations emphasizing on the improvement of automation.

Mngutyo and Iyang [24] discussed the importance of ICT skills and acquisitions by the librarian, the author emphasized that for libraries to transcend from traditional/manual operation to ICT (automation). management must keep in view appropriate software application selection and the importance of setting aside funds to be used for the training of library and information science professionals.

Chukwusa[25] investigate the usefulness of ICT in correlation to attitude toward its application in collection development in federal universities in south-east Nigeria, the study found out that acquisition librarians are aware of the usefulness of ICT in collection development, but several challenges hinder the adoption of ICT in collection development in the understudied university.

Abubakar & Adetimirin[26] investigate how computer literacy is important and a necessity towards utilization of e-resources by postgraduate student of Nigerian universities, the authors found out that postgraduate student level of computer literacy was average and this has hindered utilization and

frequency of e-resource use, they concluded by recommending post-graduate students of Nigeria be exposed to computer literacy skills.

Adebayo, Yakub & Adeniran[27] discussed the important roles of information and communication technology in the management and provision of library services and its implication to sustainable development. The article shows an overview of the benefits of ICT, the role of the library in sustainable development and the challenges.

Agboola and Shaibu[28] investigate the impact of information and communication technology on information retrieval system peculiar to federal university Gashua library of yobe state of Nigeria, and found ICTs is low in terms of facilities and utilization, the authors avered that the use of information and communication technology in library activities increases productivity and cost-effectiveness of many physical and cognitive processes, they concluded that libraries should ensure availability of latest ICT facilities, such as computer, internet, intranet/extranet, local area network (LAN), printers, scanner machines and broadcasting technologies such as radio, public address speaker and television.

Obuh[29] elucidated the roles and proficiency of the system librarian as manager of library systems in an academic environment, the author went further to examine proficiency in requisite ICT skill of system librarians in some Nigerian universities and found that it was low and they lack the capability to perform effectively in their specialized roles, the paper concluded that there is the need for overhauling entire school curriculum in Nigeria.

Fabunmi[30] provided an overview of the importance of digital signage for the dissemination of information to their patrons, he asserted that it is an area must libraries have not explored and recommend that digital signage should be incorporated in library services as it attracts patronage from the entire academic community.

Abate et al[31] investigated the use of mobile technologies for provisions of reference service in Nigeria universities library, the authors concluded that despite the high number of smartphone users in the country, the use of mobile phones for information search and retrieval is manned with challenges such as slow speed of internet, electricity failure, inadequate funding, etc.

Vincent et al[32] evaluated online reference service adoption from the perspective of the librarians in selected university libraries of Nigeria.the authors found out that e-mail services ranked highest as the overall application of online reference service while lack of infrastructure ranked first as the reason for non-application of online reference service, recommendations were made at the end of the study.

Eromosele[33] investigated information and communication technology skills as a determinant for institutional repository utilization by the lecturers of covenant university and university of illorin Nigeria. The study revealed that there is higher utilization of institutional repository by covenant university lecturers because of the high level of ICT skills while the university of illorin had low utilization because of the low level of ICT skills the paper recommended that university of illorin lecturers should acquire ICT skills.

Akanbi, et al[34] discussed the adoption of barcode technology in the landmark University of Nigeria keeping in view the benefits and disadvantages and found that there are few challenges hindering the effective utilization of barcode technology in landmark University of Nigeria.

John,et al [35] avered that the internet has become the primary source for information research and learning process and replacing OPAC/Webopac in the libraries, in view of foregoing the authors conducted a survey on use and availability of internet-based library service among lecturers in

selected polytechnics in Ogun state Nigeria and concluded that internet-based library services were available in the polytechnic libraries but underutilized.

Ekere, *et al*[36] investigated the user perception of facilities, resources, and services available at the MTN digital library at the University of Nigeria Nsuka, the authors revealed that the facilities, resources, and services available at the library were satisfactory.

Iroaganachi, *et al*[37] investigated the migration of digital content and provision of a viable platform for effective library operation in two academic libraries in Nigeria using the millennium library management software and concluded that the experience was not so smooth it was marred with series of challenges such as the absence of in-depth feasibility study, subscription to individual right to access (pot/module) and testing the product before embarking on the migration exercise, the study recommends that subscription to any library software should not be based on single modules all modules should be integrated as one.

Tega & Baro[38] investigates the pattern of information storage and retrieval in university libraries of Nigeria, the author opined that computer harddisk,audio-tapes,video-tapes,video-player, television, internet Xerox, microfilm, memory card database management, etc are the pattern through which information and data can be stored and retrieved.

Ekere, *et al*[39] investigate the use of ICT for security and theft prevention in two university libraries in Nigeria, the authors opined that video surveillance in conjunction with barcode and magnetic book control will go a long way in preventing theft and mutilation of library material, but keeping in view that full utilization might not be achieved because of issues like poor power supply, lack of ICT skilled personnel, hardware and software failure, inadequate funding, etc. the study concludes by recommending that Librarian and information expert should take out time to educate their parent organization on the importance of adopting telecommunication security systems to curb theft and mutilation.

Baro[40] enumerated the merits of ICT adoption to library service, the author also discussed the various ICT policies in Nigeria and its limitation and factors hindering internet connectivity, the author asserted that libraries are one of many industries that could increase their efficiency by adopting ICT, so Nigerian academic libraries should apply ICT to their operation and services.

CONCLUSION

This paper reviewed the literature on different aspects of the application and use of information and communication technology in Nigerian academic libraries, including the benefits, pros, cons, challenges, related to ICT application, and its devices, library and information professional ICT skills, it is clear that status of ICT adoption in various areas of academic libraries in Nigeria is still in its developing phase, and facing different challenges such as lack of funds, lack of professional staff, lack of training programs & lack of institutional support meanwhile libraries in the developed part of the world are witnessing a positive feedback in terms improved library services with the introduction & implementation of information communication technologies (ICT) in libraries.

This paper will guide the librarians, management staff on effective application of ICT keeping abreast latest technologies, the benefits, expected challenges, how to remedy and lastly understanding the need and relevance of ICT skill acquisitions by the library and information science professionals.

However, the limitation of this study is that it is centered on only Nigerian academic libraries excluding works of literature written by other authors in different geographical locations.

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