Application, and Utilisation of New Modern Technologies (ICTS) in Nigeria Tertiary Institution Academic Libraries

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ABSTRACT.

The evolution and development in information and communication technology (ICT) has made a huge effect on all circles of human life which are perceptible in case of administration activities Such as banking, transportation, wellbeing, instruction and libraries and information centres. Academic libraries don't just choose, arrange, store and recover information; but rather it provides linkage, safeguard scholarly flexibility and gives guide help and guidelines to its clients in the utilization of its information assets. In the present age of information technology, Nigerian libraries have embraced the digital revolution by providing a wide range of digital resources to meet the different demands of its customers. These digital tools have grown beyond traditional print materials, providing new ways to acquire knowledge, The survey research methods were used, with questionnaires and personal interview as data collection instruments. It was found out that ICT facilities/Resources are available in Nigeria higher institutions of learning library but some are more available than others. The ICT facilities mostly used are OPAC, internet and virtual library, which are used to source for reference information materials, complete project work, up-date knowledge and lecture notes. The major challenge encountered in the use of ICT facilities/resources in the Nigeria academic libraries as revealed by the findings, was irregular or lack of constant power supply and irregular cooling environment. Upon these findings, the study recommended among others the constant acquisition as well as the provision of ICT facilities in the academic libraries by government and institutions management, and the provision of constant power supply in which will enhance effective functioning and usage of the ICT facilities in the libraries.

Introduction

The library as an information hub has been an age-old homily, describing a place where services and resources are gathered together to spread knowledge. But the conventional occurrences of libraries have been drastically altered by the advent of modern information and communication technology (ICT). The continuous influence of the on-going information revolution has driven many researches and learning processes in university libraries. With ICT, integrating digital resources into the library has become paramount in the twenty-first century. Computers are now the means by which digital services are provided to users as opposed to traditional physical libraries, where staff involvement is required for regular operations. (Shem, 2015). They are now key players in higher education systems, supporting learning and knowledge dissemination both in-house and to meet the wider information needs of institutions and their communities. Advancements in information technology have brought about a revolution in the operations of academic libraries of higher institutions, making digital resources and services requisite of them, as libraries have become resource and service centers, given over to acquisition, organization, management, preservation and providing access to digital resources, towards more efficient user patronage (Osinulu, 2020). The ongoing information revolution brought about by technology, no doubt, has made the learning and research environment of the academic library of higher institutions a fertile ground, as a large number of technology tools are being harnessed to improve education today, (Umar, 2015). Libraries are no longer seen as just providers of printed materials; today libraries must provide both print and digital resources, as users' needs become more diverse, (Khan 2021). Over the years, there has been a significant improvement on the provision and accessibility of digital resources in the academic and research libraries. Academic libraries in Nigeria and other African nations have greatly benefited from efforts such as the International Network for the Availability of Scientific Publications (INASP) and the Programme for the Enhancement of Research Information (PERI) which helped negotiate reduced costs for digital resources (Ankrah and Atuase 2018). Nigerian academic libraries have made tremendous progress in digitizing intellectual works such as annual reports, faculty journal, articles, inaugural lectures and postgraduate theses in order to improve users' access to old thesis projects and other information resources.

Literature Review

Information and communication technology (ICT) came about because of the computerized union of computer technologies and other media transmission technologies. Presently the implementation and utilization of ICTs by people and businesses is more across the board on the planet than previously. ICT facilities are being utilized in numerous different fields like wellbeing, farming system, military, training, trading activities, and many more. ICTs are likewise being utilized in different kinds of libraries. Utilization of information and communication technologies (mechanization) derived to be because of the events of 1980s and data stage, which has seen a transformation and experience in post-industrial societies. Taking this in to consideration the performance and roles of any kind of library or information centre is for the acquirement of information materials, storing, processing, retrieval and dissemination of this information to users. The utilization of Information Technology in contemporary libraries is optimistic to build right information at the fortunate time in the perfect place and at the right expense. Information Technology progresses the rank of the library and it shortens the work heap of the library occupations. (Vijiyan, S. 2011).

ICT comprises of hardware and software, the accompanying technologies are currently well known among numerous academic libraries; laptop computers, desktop, PC, I-phone, I-pad and so forth, fringe like keyboard, speakers, scanning machine, and printers and so on. System apparatus and links like Cat-5, coaxial, fibre optics and their different connectors, routers, switches, satellite and their modem, others use by academic libraries are Software like operating system (OS),application and utilities programming design.

Today Nigerian academic libraries are moving their part from the overseer of conventional data assets to the service oriented supplier of advanced information assets.

Ivwighreghweta, O. (2013) noticed that prevalent utilization of PCs, expanded dependence on PC systems, fast development of Internet and blast in the excellence, and amount of information constrained academic libraries to embrace new methods for the storage, recovery and sharing of information. Thus, development of computerized libraries and use of advanced (ICT) have massively expanded in light of the fact that it enhanced user satisfaction, quick responses, cost viability, and simpler operational methods. He presumed that academic libraries have been utilizing ICTs to fulfil the various information needs of their clients. EBooks, E-diaries, online databases, CD-ROM databases, electronic assets, and an assortment of other automated media are quick changing the ordinary resources of libraries. ICT has revolutionized the traditional perception of academic Libraries from an ordinary store house of books to an intellectual information centre.

Information and communication technology, typically abbreviated as (ICT) is frequently utilized as an expanded equivalent word for information technology (IT). ICT is characterized as a different set of technological devices and assets used to communicate and to make, disperse, store, and manage information and they envelop an extensive variety of quickly developing technologies including broadcast communications technologies, for example, communication, cable, satellite, TV and radio, PC interceded conferencing and videoconferencing, and also computerize technologies, for example, PCs, information systems (Internet, the World Wide Web, intranets and extranets) and programming applications (Ivwighreghweta, O. 2013).

Bappah, A. (2010) defined "ICT as a wide based term that incorporates the gathering packing, stockpiling and dissemination of information that can be in written or numerical, pictorial and vocal structures (multi- media) or a blend of all the above (multi-media), using a mix of PCs and broadcast communications telephony distance learning".

Academic Libraries

Libraries and information centres shape an imperative piece of the world's system of education, data stockpiling and retrieval. Library doesn't just choose, arrange, store and recover information; it provides linkage, safeguard scholarly flexibility and gives guide help and guidelines to its clients in the utilization of its information assets. As of late, new technology and specialized devices have transformed the configuration and style of library services all over the world. The channels for access and dissemination of information and learning have turned out to be significantly more diverse.

Abubakar (2011) defined academic libraries as libraries that are devoted to academic environment or can be found in higher institution of learning, they are purposely established to support teaching and learning as well as research activities. They comprise libraries found in universities, colleges of education polytechnics, and Mono technics.

Thus, academic libraries generally play all or most of the following roles;

- To serve the mission of its parent organization
- To provide appropriate reference services to staff and students of the institution
- To serve the entire information needs of the academic community.

The different services gave in libraries today are complimented by accessible facilities, most of which are technology driven. The usage of developed technology as of late in libraries worldwide has proved beyond any doubt, that academic library, can perform better when services are satisfactorily given to improve access to the content of the library.

ICTS in Academic Libraries

For the past thirty years academic libraries in Nigeria have been affected by modifications in ICTs and the level of changes is still quickening in this area. However, the overview of several information technology (ICT) development has led to the re organisation, Modification in work design as well as demand for new effort and skills, retraining and re-classification direction. New modern technology advancement of the last thirty years which involves, automated databank, online services, CD-ROMs, and with the introduction of internet has completely changed and transmitted access to information. Information and communication technologies (ICTs) have encourage simple access to very significant and monstrous sum information that guide the enlightening, learning and research exercises in academic foundation through web based learning offices and other relating ICT amenities. The Internet is utilized by staff and students in discovering data to take care of their different issues. ICTs help libraries in giving clever and current information managements (Ajiji, Y. 2017).

ICTs constantly offer proper time, place cost effectiveness and improve the most current dissemination of information and end users involvement in the library and information service delivery. The development in Information and Communication Technologies gives a structure which has built a strong foundation for e-learning. It is comprises of internet facilities, and other materials that make the content delivery as easy as possible. Other areas of development as a result of ICT include image processing, multimedia software system etc. Technology has brought a lot of progress in our daily life activities. In fact It has turned the world into a global village and it is clear that all nations whether developed or under developed use technology for individual growth, progress and prosperity. (Emmanuel, U, A., 2014).

The present-day academic library services in the 21st century is concentrating more on the area of advanced, virtual or libraries without limits all of which have changed academic libraries and prompted progress and change in the academic library condition. The progress and the change are accompanied with complexity in the changing pattern in the information needs of clients which is developing quickly. There is a change in perspective from independent libraries to library and information systems; from printed publication to computerized documents; and from possession to get to. The custom is because of the effect of ICTs, the Internet and the web which is influencing a wide range of libraries (Abubakar, m. 2017). He furthermore watched that developments in ICTs have now offered academic libraries an energizing and challenging openings that requires them to react decidedly in all aspects of their service and capacities in the event that they are to stay applicable in the 21st century. Hence, academic libraries must devise methods for survival.

Management of (ICTS) in Nigeria Tertiary Institution Academic Libraries

The significant elements of management information system (MIS) in academic libraries is to help staff with the day by day basic leadership process, control of assets, to keep up better responsibility and to screen spending designations, to produce inner and outside reports and to enhance long haul arranging. ICTs are making it less demanding to gather and process administration data over the whole library framework and make such data/information accessible on request. Information and communication technology (ICT) management in academic libraries includes two levels: the strategic level which incorporates looking into and setting up the most proper approaches to exploit prevailing ICTs in the library, and sourcing and utilizing new ICTs that are required for future use, and the task (operation) level which includes giving high calibre, solid ICT administrations to the library through capacity building programme, conveyance of ICT ventures, execution, application and by checking use and viability of ICT frameworks in the library. The two levels of ICT management require individuals with suitable ICT abilities, and these are to a great extent truant in many libraries as observed by (Ridwan, S. 2015).

Roles and Responsibilities of ICT Manager in Academic Libraries

The IT manager assumes a crucial part in the system advancement procedure of the library administration. The finding of the research identified the following roles and responsibilities of IT manager in Nigerian academic libraries as discovered through many research works conducted by other researchers. The followings are some of the roles of an IT manager in academic libraries as discovered by the researcher.

Ability to interact with library administration/clients to know their prerequisites

- Ability to interact with merchants to pass on the conceivable interface of the product
- Ability to interact/manage the developers to monitor framework advancement
- Perform framework testing with sample
- Responsible for the new framework implementation

Challenges Facing the Implementation (ICTS) Facilities in Nigerian Tertiary Institutions

Cognisant of the substantial opportunities that ICT can provide to academic libraries in Nigeria, there are a number of problems and challenges that tend to present themselves. Academic libraries are confronted with both internal and external problems coming from their own structure and culture.

(a)Funds for acquisition of ICT Resources

Libraries require sufficient funds to acquire modern ICT facilities such as computers, servers, scanners, photocopiers, software as well as paying for online and offline services such as e-journals and digital libraries. Most of these facilities and services are very expensive and can be purchased from develop countries. Another study reveals that most of the tertiary institutions in Africa and other developing countries get very little funds from their parent institutions and the government to support their activities; this is due to poor perception of library services by top leaders and other stake holders in the parent institutions. Therefore, the little funds received fall far below the standard costs of ICT facilities and services (Samuel O. 2017).

(b) In adequate ICT facilities/Resources

Shortage of available computer offices in the library, shortage of internet resources, lack of ICT abilities by the library staff and absence of ICT strategy and many more are some of the challenges militating against the utilization of ICTs in Nigerian academic libraries (Madu, and Azubogu, N.

2017). Similarly Samuel O. (2017) alsodiscovered that few students in those libraries use ICT facilities for assignment, research and updating lecture notes due to inadequate ICT facilities.

(c) Lack of Awareness and commitment among key stake holders

Continues commitment and involvement of key stake holders is important when integrating ICTs in organisational functions. Low awareness on the importance of ICTs among the top management has been a great obstacle to ICT development in Nigeria tertiary institutions. It has been difficult for college top officials to support initiative that aim at increasing availability, access and utilisation of electronic information resources in the college (Omekwu, O. 2014).

(d) Inadequate Information literacy among the library users

Library users need both computer and information literacy (IL) skills to effectively use the rapidly growing and changing information resources. (Samuel O. 2017) observed that about (60%) users of some academic libraries in Nigeria lack good knowledge of ICT facilities provided in the library because they were not trained before.

(e) Unreliable power supply: Absence of consistent power supply in the libraries: ICT amenities depend on power for their working. Constant power supply cut is a determined issue in Nigeria. These in addition to other things, influence the Management and use of ICT amenities and administrations.

Summary of the Research Finding

The findings from the above research work as a result of the reviewed literature clearly show that ICT facilities are available in almost all academic institution in Nigeria. The finding shows that majority of the students in the institutions who form 70-90% of the beneficiaries of the services of academic library are aware of the available ICT facilities provided in the library. Nevertheless, the levels to which ICT facilities are utilized are very low because of some significant factors affecting the utilization of these facilities. These factors includes; lack of access to information resources, insufficient budgetary help, absence of ICT specialized ability, absence of consistent power supply, and use of second hand ICT facilities. ThereforeThe IT manager need to develop an algorithm models and a decision matrix table to serve as a means of achieving and providing appropriate service that respond to the needs of the College education information users. Haphazard ways of doing things should be avoided for it would lead to failure. The training process should take into consideration technologies in use so as to ensure effective and efficient use of the services available

Conclusion

This research work on the challenges and utilisations of ICT facilities for information access and management in Nigeria tertiary institutions was able to identified most of the uses and challenges of ICT facilities in academic library through a review of relevant secondary sources of information related to the case study, as a result of which the researcher provided a working strategy if applied by policy makers of the institution and the individual staff might find it useful in effective and efficient information provision.

Recommendation

The utilization of ICT in academic libraries in Nigeria tertiary institutions for information access and management promises compelling and productive services to the whole library patrons. Regardless of all the opportunities ICT provides to academic libraries in Nigeria a great deal of

variables remains as threats and difficulties to the proficient and powerful utilization of ICT offices in academic libraries. Then, for these libraries to persistently satisfy their essential objective which is, the realization of information needs of clients, the accompanying suggestions on the challenges and utilisations of ICT facilities for information access ought to be considered and implemented.

- Academic librarian in collaboration with the stakeholders (the institution stakeholders) should jointly take decision towards realization of set goals of the library to achieve effective and efficient information service provision to their clients.
- The management of the collage should adequately fund ICT department to promote the acquisition and management of ICT facilities used by the institution so that more current ICT facilities can be deployed in to the library for effective services.
- Information and communication technologies under the watch of academic librarian should be made available and accessible to all registered members of the institution. An effective learning can be achieved if the essential ICT facilities are provided to support learning.
- IT department and ICT facilities heavily rely on electricity/power supply to function, as such there is need for the management to provide the IT section with power supply alternative e.g. stand by generators so that the challenge of in adequate power supply can equally be alleviated.
- Librarian should consider the importance of training users on how to make use ICT Resources whenever he discover the need for doing so, this will help towards ensuring proper management of the ICT facilities provided by the institution.

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