

Utilization Of Ict For Library Services In Festus Aghagbo Nwako Library, Nnamdi Azikiwe University Awka, Anambra State, Nigeria.

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Abstract

Purpose: This study is on the “Extent of utilization of ICT for library services to the undergraduate students’ in Prof. Festus Aghagbo Nwako Library of Nnamdi Azikiwe University Awka, Anambra State Nigeria.

Methodology: The study adopted case study research design. The population of this study 67 made up of librarians in Prof. Festus Aghagbo Nwako library of Nnamdi Azikiwe University. The entire population was used for the study because the number is small and enough for the researchers to manage. The instrument for data collection is questionnaire. The data collected was analyzed using mean and Percentage.

Findings: The study revealed that the ICT facilities available for providing library services in Festus Aghagbo library are the networked computers, printers, scanners, photocopiers, projector, internet, institutional web site and digital camera. Web based resources, internet access, online customer relations, audiovisual services, inter-library loans; document delivery, current awareness service, bibliographic service, reference service, and online user services are the ICT-Based User Services in the Institution. And that the challenges confronting the use of ICT facilities in the library are inadequate financial support, low ICT literacy by staff and erratic power supply.

Implications: Inadequate power supply in the library is one of the major challenges that hinder the undergraduate students to make use of the available ICT facilities in the library which renders the ICT facilities to be underutilized by the staff of the library in providing effective and efficient services to the undergraduates.

Value/Originality: The study educational value is on the recommendation that the library should have ICT policy in the library stating what percentage of library budget should be allocated to ICT section of the library. There should be provision for alternative power supply in other to ensure that the library has light for the staff to render their services to the users with the help of ICT facilities.

Keywords: ICT-based users services, ICT facilities available for library services, use of ICT in providing library services, Nnamdi Azikiwe University Awka, Nigeria.

Paper type: Empirical

Introduction

Information and Communication Technology (ICT) has improved library services and technological developments in the university library. The prime objectives of the University library is pooling information resources and information related infrastructure and sharing them. In this process, many University libraries have restructured their traditional library routines and services to overcome inadequacies through the use of ICT via library automation and computerization. Omekwu (2008) referred to ICT as a change agent that have facilitated the

advancement of the use of communication satellite, cable television networks, wireless telephones systems, computer network systems and the internet on all professions. ICT is also a range of new technologies and their applications such as telephone, internet, worldwide web (www) and email which can be used to store records and process information. ICT are used virtually in all facets of human endeavor and library is not left out, the library use ICT gadgets to serve its users in various services provided by the library.

Library services are services provided by the libraries to its patrons to meet their information needs. These services are centered on user services which are: user education, inter-library loan, abstracting and indexing, bibliographical services, and reference, charging and discharging of library resources. Anyoagu (2007) also asserts that these library services support the user's accessibility of information from both physical and virtual libraries which includes current awareness services; selective dissemination of information; document delivery; repackaging; facsimile; binding and referral services. The use of ICT has transformed the ways and means by which library service are provided. ICT quickens library operation which saves time, resources and labour. The extent at which these ICTs are used will ensure that the technology based library services are sustainable to enhance the ability of University library services. University libraries globally are able to provide access to online databases.

Information and Communication Technology has also provided a platform for ICT based library services to be available for users in the university libraries. ICT facilities are changing the way the librarian view information sources as well as provision of library services to its users. University Library's provision of library services are processed in the most speedy, accurate and effective way to enable fast accessibility of library services and resources. Hence, the extents of use of ICT in libraries will revolutionaries the field of librarianship. However, despite the benefits of the use of ICT in the provision of library services to the undergraduate students, a number of problems have affected its availability and utilization. Among the problems are the lack of funds and low budgets for the acquisition of ICT facilities and poor ICT policy.

Statement of the Problems

With the introduction of ICT gadgets in rendering services that were initially done manually, library users have found it much easier to access resources in the library and have also derived satisfaction with the new trend of service delivery. ICT has improved libraries services and technological developments in the university library. With the efforts of the library

staff to satisfy the information needs of their users, it seems that there are some challenges that hinder them from performing to their maximum capacity and therefore may not be able to meet the undergraduates information needs this was observed by the researcher in their interaction with some of the library staff and some of the undergraduate students in Nnamdi Azikiwe University Awka do not get sufficient services that should be provided to them that motivated the researchers to carry out this research.

Purpose of the Study

The general purpose of the study has been to examine the extent of utilization of ICT for library services to the undergraduate students in Festus Aghagbo Nwako Library, Nnamdi Azikiwe University, Awka. Specifically, the study intends to:

1. Examine the ICT facilities available for providing library services to undergraduate students in Festus Aghagbo library of Nnamdi Azikiwe University, Awka
2. Determine the extent of use of ICT in providing library services to undergraduate students in Festus Aghagbo library of Nnamdi Azikiwe University, Awka.
3. Find out the ICT-Based User Services in Festus Aghagbo library Nnamdi Azikiwe University library
4. Examine the problems associated with the use of ICT facilities in providing library services in Festus Aghagbo library of Nnamdi Azikiwe University, Awka
5. Suggest strategies for overcoming the challenges to the use of ICT facilities in providing library services in Festus Aghagbo library of Nnamdi Azikiwe University, Awka.

The following research questions that were in tandem with the objectives of the study were used to guide the study

1. What are the ICT facilities available for providing library services to undergraduate students in Festus Aghagbo library of Nnamdi Azikiwe University, Awka?
2. What are the extents of use of ICT in providing library services to undergraduate students in Festus Aghagbo library of Nnamdi Azikiwe University, Awka?

3. What are the ICT-Based User Services in Festus Aghagbo Library of Nnamdi Azikiwe University?
4. What are the challenges associated with the use of ICT in providing library services to undergraduate students in Festus Aghagbo library of Nnamdi Azikiwe University, Awka?
5. What are the strategies for overcoming the challenges to the use of ICT in providing library services to undergraduate students in Festus Aghagbo library of Nnamdi Azikiwe University, Awka?

Review of Literature

Information and Communication Technology (ICT) is a term that covers all forms of communication equipment and software used to create, store, transmit, interpret, and manipulate information in its various formats, Adeniyi (2010) defined "ICT as a broad-based term that encompasses the gathering, organization, storage and retrieval of information that can be in textual or numerical, pictorial and vocal forms or a combination of all the above (multi-media).

Herselman and Britton (2012) also posited that ICT is simply about sharing and having access to data with ease; including the Internet which is regarded as the information super highway through which information is transmitted and shared by people all over the world. Quinn (2015) defined ICT as the handling and processing of information (texts, images, graphs, instruction for use, by means of electronic and communication devices such as computers, cameras, telephone. Ofodu (2016) also referred to ICT as electronic or computerized devices, assisted by human and interactive materials that can be used for a wide range of research, teaching and learning as well as for personal use. This means that ICT tools and services is extremely of importance in this era.

The availability of ICT facilities in university libraries is strategic to the achievement of timely and efficient provision of library services. Chauhan (2011) in studying the ICT facilities available in Niger Delta University outlined the following as ICT resources commonly used in providing services in Nigerian university libraries: computers, Local Area Network, Wide Area Network, electronic

mail, CD-ROMs, Audio-Visual accessories, internet and its ancillary service, mobile phone, telephone, scanners radio etc.

Chauhan outlined the following as ICT facilities used in provision of library services and it includes: computers, digital camera, webcam, smart card, web-OPAC, CD-ROM. Chauhan further stated that networked accesses to database helps in getting newly published information to library users; while, the technology of reprography has made a big impact on the document development system, as most university libraries have reprographic machines which they use to provide photocopy of any document on demand.

Reference libraries in the past, except for analogue telephone calls, considered only face-to-face interaction to render services to clientele. Today, services to users of a library in advanced societies can be online or offline (Martell, 2013). Gama (2008) said that a library website is designed in such a way that patrons can interact with the librarian through: web forms, ask a librarian; chat with a reference librarian, contact center; video conferencing; voice over internet protocol (VOIP) and SMS reference services.

Mole (2006) is of the opinion that services are more feasible and operational in technologically developed nations, developing countries too can use recent digital library development, digital information services, free access to e-journals and e-books, e-print and archives to bridge the gap. Online public Access Catalogue (OPAC) according to Ajibero (2001) is a detailed holding of a particular library or group of libraries or a database to which users have access. Therefore, with the evolution of OPAC which is networked and universally accessible, it is possible to access the university library collection without pulling the drawers. University libraries provide inter-library loan (ILL) and document delivery services to assist user's access information that may not be available on their shelf. With the high extent of use of ICT, inter-library loan services can be done through electronic networks. These networks are established as means of sharing common resources among several users (Okore, 2005). OPAC offers are accessibility from a remote computer, using a local area network (LAN) or a wide area network (WAN). With

modern library systems offering interface to OPAC, it is also possible to provide access from anywhere in the world via Internet. An internet enabled OPAC is called Web OPAC. Web OPAC can be searched using any common browser, such as Microsoft Internet Explorer or Netscape Navigator. Web OPAC. Apart from searching OPAC, some libraries allow their remote users to avail certain online services like book reservations, loan requests for postal loan, loan renewals, membership application, address change, suggesting books etc.

Reference Service as a synchronous tools such as email, subject gateways, electronic libraries and interactive tools like chat rooms and virtual reference desk have replaced the conventional means of post, phone or in-person reference enquiries. The reference librarian either provides an answer, links to resources or link to a subject expert. Interactive tools now allow a reference interview online.

Bibliographic Service such as compilation of bibliographies, reading lists and state-of-art reports are very parts of LIS work, particularly in research and academic libraries. Browsing through the manual indexes and abstracts is a tedious and time consuming work, and does not always produce up to date result. Availability of databases in electronic form on CDROM or online, offers convenient, efficient and cost effective information retrieval. Electronic databases also provide unique search features such as searching on multiple criteria and variety of display formats & styles. Advance features like natural language query ranking the search results in also available in many databases.

Current Awareness Services has been important means for keeping the users up to date in their areas of interest. A current awareness service may be as simple as copy of table of contents or a bulletin containing bibliographic records, of articles selected from the current issues of journals and other material, and usually organized by subjects. Libraries now compile current awareness bulletins using predefined search strategy and running on the database either on CD ROM or online periodically and getting the desired output. Subject to copyrights, the output can also be stored on a local site.

Document delivery is not possible for libraries to have everything that its clients may

need. Libraries use document delivery services from other libraries and commercial organizations for copies of research papers etc not held by them. Locating a source and procuring the document requires considerable time and efforts and the process is faced with uncertainties. ICT has made the document delivery services very simple and reliable. From searching the holdings to ordering and delivery have been benefited by the use of ICT. A large number of libraries now host their up to date holdings on their website and can be searched on internet.

Inter-library loans and union catalogues are resource sharing through academic libraries and are necessary for the libraries because no library can fulfill all the needs of its users from its collection. Access to the catalogue of partner libraries is crucial to inter-library lending. Union catalogues, standardization and machine readable catalogues are aimed at promoting resource sharing. Printed union catalogues and Computer Output on Microfiche (COM) catalogues and CDROM are now being replaced by web OPAC and web based union catalogues. Librarians can now access catalogues of thousands of libraries across the world using Internet. Developments in digital library and internet technologies have made it possible to automatically update the catalogue records from member library systems, distributed searches using a single user interface, and value added services.

Audiovisual materials are important sources of information, education and entertainment. Many libraries particularly media libraries and large academic and public libraries hold audio visual material such as music, films, pictures and photographs etc. The new multimedia of audio CD, Video CD (VCD), and Digital Video Disks (DVD) have advantage of higher storage capacity, random access and longer life than audio and video tapes and cassettes. Many libraries allow their members to borrow these. Multimedia documents can now be played on standard PCs, stand-alone or networked. Recent developments in storage media, compression and encryption technology have made it possible to store large amount of multimedia documents on hard disk and disseminate through internet

Customer relations and user education is a continuous interaction with users for feedback and information is a must to maintain the standards of service. While the conventional means of interaction such as meetings, suggestion box, surveys and interviews are still important, use of new means of communications such as email, web forms, bulletins boards, discussion forums and listserv are fast replacing these. Not only these tools provide a fast, convenient and transparent and cost effective medium, but also offer scope for innovations and greater peer participation. Some of these tools can even be used by the libraries to involve the users in book selection etc. Customer relations can be tremendously improved by innovative use of technology like virtual library tours, making interactive library maps and floor plan available on the library web site. A highly ICT enabled environment requires appropriate training to its users also. The contents of user training must include use of internet tools and resources.

Internet access is not only a medium for digital communication but also the world's largest repository of information. Libraries, therefore, provide free or controlled access to internet and email. Depending upon the availability users can be given time slots for use of internet facility. Usually a few internet enabled terminals are provided in the library that can be used by the visitors for internet access and email etc.

Access to web based resources, are types of library materials such as journals, books, patents, newspapers, standards, photographs, pictures, motion pictures or music now available in electronic or digital form. From the user's point of view digital resources hold many advantages such as time and place convenience, timeliness and ability to search directly on text.

From the foregoing, the facilitates enhances the following:

- Speedy and easy access to information
- Remote access to users
- Round the clock access to users
- Access to unlimited information from different sources
- Information flexibility to be used by any individual according to his/her requirements
- Increased flexibility for choice of data

- The reformatting and combining of data from different sources

The extent of use of ICT for the provision of library services for undergraduate students in university library has several challenges militating against it. In the views of Adeniyi (2010) the extent of use of ICT in university libraries has the following problems.

First of these problems is the software. The software being used on a single user's system which does not allow for multiple uses simultaneously and it is difficult to use and understand. For example, the Micro CDS/ISIS is not meant for numeric application and so cannot be used for keeping track of library transactions such as circulation, acquisition, serials management, which often require some calculations of numbers and dates.

Another problem as noted by Tihamiyu (2000) include: fatigue, insufficient power supply, and computer addiction, low quality of telecommunication facilities and lack of fund. On-line reading is also a major challenge because it affects majority of students who access the web through the university library portal. Key factors affecting the readability of on-line information include height of displayed character relative contrast between text character and page background, color, and quality of user's display device as well as actual composition of the web content. Madu (2004) have found that an organization of on-line documents which emphasizes page-by-page presentation results in better user comprehension and improved search performance than a document organization that requires page scrolling to acquire the same information.

Internet delay is concerned with the speed with which information can be transmitted across the internet. Users are usually sensitive to delay in internet response time of few seconds. Madu (2004) found that, although users view documents delayed in transmission less favorably than others, the effect depended on the document's contents. These issues outlined are system specific challenges that can be regarded as universal. There are certain ICT challenges that are peculiar to less developed countries like Nigeria. Woherem (2000) identified eleven major categories of ICT related challenges in Nigeria: systems down times; lack of investment capital; lack of knowledge of how to develop IT

system internally; lack of internal maintenance skills or culture; lack of ICT management knowledge; absence of ICT strategies; the gimmicks of vendors as well as the lack of the basic infrastructure and facilities for the exchange of information. Ayo (2001) contributing to the factors of ICT challenges identified power (electricity), telephone (communication), illiteracy, poverty (cost), lack of adequate manpower, lack of adequate infrastructure, insecurity and virus attack. Amkpa and Abba (2009) attributed the challenges of ICT use in university libraries to: poor policy planning and implementation; project funding and sustainability, insufficient and unrealistic infrastructural facilities; lack of adequate power supply; lack of appropriate technical skills, education and training, attitude of information professional towards ICT; Technical support from vendors or software agents/gateways; lack of partnership in ICT assisted, networking and cooperative projects; and practical and economic problems.

Krubu and Osawaru (2011) in a study on the factors militating against the application of ICT in the Nigerian University libraries found that poor funding and epileptic power supply is the major factors acting as a drawback or an impediment to the application of ICT. Supporting these findings is the study of Ebijuwa (2005), that electricity which must be available for 24 hours of the day is one of the basic problems that Nigeria has with infrastructural facilities. Ebijuwa further stated that its epileptic nature and the constant power cut without notice do not make for the growth of viable ICT programme. Other inhibiting factors are automation at infancy level, technical know-how, and lack of search skills. Inadequate personnel, apathy or lackadaisical attitudes of library staff etc.

University libraries in Nigeria are the in financial dilemma and the increase in their funding will solve the major problems they face in their ICT usage. Fabunmi (2009) argued that for a long lasting, effective and relevant application ICT in Nigerian university libraries, the government must increase the funding of academic institutions. It is only when the funding of academic institutions is increased that the academic libraries in Nigeria will have the required funds to increase their ICT applications.

There should also be a comprehensive ICT policies developed as well as published for scrutiny at the national, institutional and library levels.

Okiy (2005) suggested that university libraries should seek to meet the consumers' needs and its digital library systems must be dependable; must be reasonably priced; must have powerful, easy-to-use, intelligent search engines; must have attractive user interfaces; must allow the consumer to inspect the "product" before buying; and must allow access from, and delivery to the users.

Elisha (2006) asserts that Librarians and information professionals should be involved in all library initiatives. Training should be organized for the librarians and information professionals on ICT service delivery to users. To help address the cost of electronic and proprietary software, the government of Nigeria should encourage the use of open source software and open access electronic resources. Edem (2005) posit that students must be given the kind of training that would impart sufficient understanding of the technology that powers the information society. An ICT literacy programme should be incorporated into the curriculum of universities to provide students with a wider range of ICT handling skills which encompass accessing, processing and retrieving relevant, timely, accurate information for identified need. According to Opeke (2004), such skills will empower students to access the needed resources in a timely and quick manner.

Okiy (2005) suggested that the Nigerian Universities Commission, the Nigerian Library Association and the Librarians' Registration Council of Nigeria should through the government, put policies in place to promote the provision of adequate library facilities and resources at all levels of the educational system in Nigeria. Okiy further stated that university libraries should possess literacy among other competencies so that they can adequately guide library users on how to use ICT facilities to meet their information need. According to Quinn (2012), such competencies include skills in synthesis of information, experience in the techniques and skills of information retrieval and training in information dissemination techniques.

In the same context, Edem (2005) proffers solution to the problem of the extent of ICT use in libraries which suggest that there should be an efficient power supply. Standby generator should be provided to check the menace of frequent electric power failure. Also, practicing librarians must be involved in training and retraining in the knowledge of ICT competencies required for them to effectively use and manage the ICT resources in the academic libraries towards globalization of their services; library schools in Nigeria should incorporate ICT competency training into their curriculum. The problem of poor telecommunications infrastructure should be doggedly addressed by the government by injecting the necessary funds and technical expertise.

Methods

The study adopted case study research design. The population comprised of 67 library staff and there was no sample as the population size was considered small and sufficient for the research. Checklist and questionnaire were used as the instruments for data collection and the data collected were analyzed using mean and simple percentage.

Data Presentation

Research Question 1: What are the ICT facilities available for providing library services to undergraduate students in Festus Aghagbo Nwako library of Nnamdi Azikiwe University, Awka?

Table 1: Mean rating of ICT facilities available for providing library services to undergraduate students in Festus Aghagbo Nwako library of Nnamdi Azikiwe University, Awka

S/N	Ict Facilities	Mean (X)	Decision
1	Computers	2.00	Available
2	Networked computers	2.00	Available
3	Printers	1.98	Available
4	Scanner	1.94	Available
5	Photocopiers	1.96	Available
6	Fax machines	1.00	Not Available
7	Projector	1.97	Available
8	Internet	2.00	Available
9	Institutional web site	1.98	Available
10	Digital camera	1.96	Available
11	Library e-mail	1.98	Available

Table 1 showed that the ICT facilities available for providing library services to undergraduate students in Festus Aghagbo library are: Computers, networked computers, printers, scanner, photocopiers, projector, internet, institutional web site, digital camera, and library e-mail with mean scores of 2.00, 2.00, 1.98,

1.94, 1.96, 1.97, 2.00, 1.98, 1.96, and 1.98 where as fax machines were not among the ICT facilities available for providing library services to undergraduate students in the library as they indicates the average mean score of 1.00 which is less than 1.5.

Research Question 2: What are the extents of use of ICT in providing library services to

undergraduate students in Festus Aghagbo Awka?
Nwako library of Nnamdi Azikiwe University,

Table 2: ICT-Based User Services available in Festus Aghagbo Nwako Library of Nnamdi Azikiwe University

S/N	ICT Facilities	Mean	Decision
1	Web based resources	2.00	Available
2	Internet access	2.00	Available
3	Online Customer relations	1.96	Available
4	Audiovisual services	1.97	Available
5	Inter- library loans	1.98	Available
6	OPAC	1.00	Not Available
7	Document delivery	2.00	Available
8	Current Awareness Service	1.96	Available
9	Bibliographic Service	1.94	Available
10	Reference Service	1.93	Available
11	Online user services	1.98	Available

Table 2 showed that the respondents accepted that the ICT-Based User Services in Nnamdi Azikiwe University library include web based resources, internet access, online customer relations, audiovisual services, inter- library loans, document delivery, current awareness service, bibliographic service, reference service,

Research Question 3: What are the ICT-Based User Services in Festus Aghagbo

and online user services which has a mean scores of 2.00, 2.00, 1.96, 1.97, 1.98, 1.91, 2.00, 1.96, 1.94, 1.93, and 1.98 where as the respondents rejected that OPAC is among the ICT-Based User Services as it has a mean score of 1.00 which is below 1.5.

Nwako Library of Nnamdi Azikiwe University?

Table 3: Extents of use of ICT in providing library services to undergraduate students in Festus Aghagbo Nwako library

S/NO	ICT Resources	Mean	Decision
1	Computers	3.93	Accepted
2	Printers	3.84	Accepted
3	Scanner	3.39	Accepted
4	Photocopiers	3.51	Accepted
5	Fax machines	1.75	Rejected

6	CD. ROMs	3.72	Accepted
7	Flash drive	3.63	Accepted
8	Projector	3.40	Accepted
9	Intercom	3.43	Accepted
10	Internet	3.88	Accepted
11	External hard disc	3.70	Accepted
12	Digital camera	3.99	Accepted
13	Television	3.13	Accepted

Grand mean score

3.0 Accepted

Table 3 showed that the extent of use of ICT in providing library services to undergraduate students in Festus Aghagbo library is at high extent by computers having a mean score of 3.93, printers 3.84, scanner 3.39, Photocopiers 3.51, CD ROMs 3.72, flash drive 3.63, Projector 3.40, intercom 3.43, internet 3.88, external hard disc 3.70, digital camera 3.99, and

television has **3.13** while only fax machines are used at very low extent in the library

Research Question 4: What are the challenges associated with the use of ICT in proving library services to undergraduate students in Festus Aghagbo Nwako library of Nnamdi Azikiwe University, Awka

Table 4: Problems associated with the use of ICT in proving library services to undergraduate students in Festus Aghagbo Nwako library

S/N	Problems	Mean	Decision
1	Inadequate financial support	3.66	Agree
2	Insufficient ICT facilities	3.39	Agree
3	ICT Phobia	3.00	Agree
4	Erratic power supply	3.52	Agree
5	Poor maintenance culture	3.13	Agree
6	High cost of ICT facilities	3.31	Agree
7	Abuse of facilities	3.40	Agree
8	Low ICT literacy by staff	1.88	Disagree
9	Low ICT literacy by users	3.43	Agree

Table 4 showed that item 1-7 and 9 have mean score above 2.5 which shows that the problems associated with the use of ICT facilities in library services in Festus Aghagbo

library are: inadequate financial support, insufficient ICT facilities, ICT phobia, erratic

power supply, poor maintenance culture, high cost of ICT facilities, abuse of facilities, and low ICT literacy by users with an average mean scores of 3.66, 3.39, 3.00, 3.52, 3.13, 3.31, 3.40, and 3.43 while low ICT literacy by staff which has mean score of 1.88 is not part of the

?

Table 5: Strategies for overcoming the challenges of use of ICT in providing library services to undergraduate students in Festus Aghagbo Nwako library

S/N	Suggested solutions	Mean	Decision
1	Government should provide adequate funds	3.64	Agree
2	Library staff should be sent for ICT training	3.64	Agree
3	Government should improve power supply	3.97	Agree
4	Adequate ICTs should be made available	3.79	Agree
5	Mutual understanding between traditional and ICT skilled librarians	3.45	Agree
6	Staff improvement on maintenance culture	3.43	Agree
7	Government should waive tax on ICT	3.63	Agree
8	Adequate infrastructural facilities	3.72	Agree
9	Regular orientation for users	3.00	Agree

Table 5 showed that all the items have mean score above 2.5 which revealed that all the respondents accepted that the strategies for implementing and addressing problems of use of ICT facilities in library services in Festus Aghagbo Nwako library is that government should provide adequate funds, library staff should be sent for ICT training, government should improve power supply, adequate ICTs should be made available, mutual understanding between traditional and ICT skilled librarians, library staff improvement on maintenance culture, government should waive tax on ICT, adequate infrastructural facilities, and regular orientation for users.

Discussion of Results

The ICT facilities available for providing library services to undergraduate students in Festus Aghagbo library are computers, networked computers, printers, scanner, photocopiers, projector, internet, institutional web site, digital camera, and library e-mail where as fax machines were not among the ICT facilities available for providing library

problems associated with the use of ICT facilities in the library.

Research Question 5: What are the strategies for overcoming the challenges of use of ICT in providing library services to undergraduate students in Festus Aghagbo Nwako library of Nnamdi Azikiwe University, Awka

services to undergraduate students in the library. These were in line with the work of Ofodu (2016), who identified the following as ICT facilities provided by Nigerian university libraries: Online Public Access Catalog, CD-Rom databases, electronic mail (e-mail) and Internet browsing. It was also in consonance with the study of Chauhan (2011) who outlined the following as ICT facilities used in provision of library services in libraries: computers, digital camera, webcam, smart card, e-books, e-journals, web-OPAC, CD-ROM etc. Chauhan stated that the CD-ROMs, coming along with books are assigned accession numbers and kept at the computer section to be issued to the users to get information whenever needed.

The ICT-Based User Services in Nnamdi Azikiwe University library include web based resources, internet access, online customer relations, audiovisual services, inter-library loans, document delivery, current awareness service, bibliographic service, reference service, and online user services where as OPAC is not among the ICT-Based User Services in the Institution. According to Okore (2005), he

asserts that Libraries are now providing various ICT-based services to their users to enhance their accessibility and easy retrieval to information resources. Ayo (2001) reported that e-mail is the most used Internet resource by staff and students. However, there are a number of ICT-based user services that are provided by the library to aid users search for information such as current awareness service, reference service, bibliographic service, and inter- library loans.

The extent of use ICT facilities in providing library services in Festus Aghagbo Nwako library of Nnamdi Azikiwe University was in a greater extent. Mole (2006) while analyzing the extent of use of ICT in reference services in university libraries cited Augustine and Green as reporting that about 46.9% of academic institutions in United States uses web-based interactive reference as an extension of their traditional reference services. Mole went further to show that although these services are more feasible and operational in more technologically developed nations, developing countries too can use recent digital library development, digital information services, free access to e-journals and e-books, e-print archives etc., to bridge the gap. Ajibero (2001) is a detailed holding of a particular library or group of libraries or a database to which users have access. Therefore, with the evolution of OPAC which is networked and universally accessible, it is possible to access the university library collection without pulling the drawers of three by five cards. University libraries provide inter-library loan (ILL) and document delivery services to assist user's access information that may not be available on their shelf. With the high extent of use of ICT, inter-library loan services can be done through electronic networks.

The problems associated with the use of ICT facilities in library services in Festus Aghagbo library are: Inadequate financial support, insufficient ICT facilities, ICT phobia, erratic power supply, poor maintenance culture, high cost of ICT facilities, abuse of facilities, and low ICT literacy by users while low ICT literacy by staff is not part of the problems associated with the use of ICT facilities in the library. According to Adeniyi (2010), he carried

out a study on the extent of use of ICT in university libraries has the following problems. First of these problems is the software. The software being used on a single user's system which does not allow for multiple uses simultaneously and it is difficult to use and understand. For example, the Micro CDS/ISIS is not meant for numeric application and so cannot be used for keeping track of library transactions such as circulation, acquisition, serials management, which often require some calculations some numbers and dates. Another problem as noted by Tiamiyu (2000) include: fatigue, insufficient power supply, and computer addiction, low quality of telecommunication facilities and lack of fund. On-line reading is also a major challenge because it affects majority of students who access the web through the university library portal. Key factors affecting the readability of on-line information include height of displayed character relative contrast between text character and page background, colour, and quality of user's display device as well as actual composition of the web content. Madu (2004) have found that an organization of on-line documents which emphasizes page-by-page presentation results in better user comprehension and improved search performance than a document organization that requires page scrolling to acquire the same information.

The strategies for implementing and addressing problems of use of ICT facilities in library services in Festus Aghagbo library of Nnamdi Azikiwe University are orientation workshops, conferences and seminars, good power supply, adequate infrastructures, adequate provision of ICT resources in libraries, adequate funding. This was in line with the work of Elisha (2006) who asserts that Librarians and information professionals should be involved in all library initiatives. Training should be organized for the librarians and information professionals on ICT service delivery to users. To help address the cost of electronic and proprietary software, the government of Nigeria should encourage the use of open source software and open access electronic resources.

Recommendations

Based on the results gathered from the study, the following measures have been recommended for enhancing the use of ICT facilities in Festus Aghagbo Nwako library, Nnamdi Azikiwe University, Awka.

1. Libraries that did not have ICT policy should try to formulate one. The policy should state the amount (probably in percentage, out of the annual library budget) that should be spent on ICTs just like what is obtained with books and periodicals in many academic libraries.
2. University librarians should be more proactive and also endeavour to persuade their authorities to provide them with ICT facilities that are insufficient or lacking. They should also engage in finding ways of collaborating or linking with other libraries or organizations both within and outside Nigeria that have interest in developing library services. This will provide them with the opportunity to not only enjoy some funds or sponsorship of projects but also assist in solving a number of problems such as the erratic power supply, insufficient ICT

resources, maintenance, staff training etc.

3. The University librarians should explore possibilities of getting into legal businesses and consultancy services so that their revenue generating sources could be diversified. With this, a lot of financial problems hindering effective application and utilization of ICT facilities in University libraries for information service delivery could be minimized.
4. Adequate ICT facilities should be made available in the University libraries. This will enhance effective and easy information service delivery by the staff to their users.
5. On regular basis seminars, conferences, workshops, training and retraining of library staff on ICT facility use should be organized. This will make the staff to have self-actualization that will make them to deliver their role in information service effectively. The study therefore, finally recommends that ICT facilities should be provided in all the sections and units of the University libraries. This will facilitate easy access of information by users.

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