AUTOMATION OF LIBRARY SERVICES FOR ENHANCED USERS' SATISFACTON OF INFORMATION RESOURCES IN ACADEMIC LIBRARIES IN NIGERIA

Suleiman Hussaini[1], Dr Rajeev Vashistha[2],

Amina O. Jimoh[3], Hassana Jimah[4]

[1]*Research Scholar, Department of Library and Information Science,*
Nims University, Jaipur India.

[2]*Associate Professor, Department of Library and Information Science,*
Nims University Jaipur, India.

[3]*Kashim Ibrahim Library, Ahmadu Bello University, Zaria. Nigeria.*

[4]*PG Student, Department of Library and Information Science,*
Ahmadu Bello University, Zaria Nigeria.

ABSTRACT

The advancement of Information Communication Technology has brought change to the operations of library services in many academic libraries in Nigeria, from traditional methods to a modernized way with the computerization of library activities. The paper looks into library automation for enhanced users' satisfaction of library services via acquisition, circulation, online Public Access catalogue, Catalogue and serial control. The paper would help academic libraries in Nigeria who have partially automated or those that have not yet automated their library activities to fully embrace it so as to satisfy the information of needs of the users by providing efficient library services. It also highlighted some rationale and requirement for the successful implementation of library automation in academic libraries in Nigeria and how best to tackle the challenges confronting libraries in an academic setting. It concludes by urging the management/Stakeholders of all the academic libraries in Nigeria to carefully plan and implement high quality library and information services due to the growing demand of users and the changing social and technological environment of the present era.

Keywords: *Library Automation, Library Services, Academic Libraries, Softwares/Databases, Users satisfaction, Information resources.*

I. INTRODUCTION

The development of Information Communication Technology (ICTs) is gradually changing the operations of academic libraries in world, with the unprecedented pace of technological change in the development of information networks and electronic services in recent years; automation of library services has helped to

expand the role of the academic libraries Adeyinka [2004]. Hence, the proliferation of computer systems in the libraries towards maintaining efficiency has brought rapid growth to the centralized resource sharing among libraries and has changed the definition of librarians and libraries [1]. Consequently, the convergence of computing has considerably affected the provision of libraries and information services by making information related task easier[2]. However, In recent year, Information Communication Technology has brought about paradigm shift in libraries from the traditional methods of operations to a new concept called Automation[3]. The cumbersomeness development rate of information in academic libraries in Nigeria and the complexity positioned by updating of manually based systems makes it difficult for effective services in modern time[4]. Hence, academic librarians are then challenged to create information systems for the collection, organization, dissemination and preservation of information and new knowledge regardless of the format Gbaje 2007 cited in Anunobi [5]. Furthermore, the channels for access and distribution of information and knowledge are much more diverse, they collapse the waiting time and provide more tools directly to the user while libraries will not be replaced, they will need to adapt to methodologies by taking advantage of the new tools[6].

Library Automation according to Salmon (1975) cited in[7] is the use of automatic and half automatic library actions as acquisition, circulation and cataloguing. However, these functions were performed traditionally in the 90s and observed that library automation is entirely different from automatic indexing, information retrieval, abstracting e.t.c

[8]sees library automation as the application of mechanical and electrical devices to carry out certain task in the library which is formally performed manually. It is the application of computer technology to acquire, organize and disseminate information quickly and accurately as possible.

According to Uddin [2009] cited in Das [9], library automation is the application of automatic and half automatic data processing mechanism to perform traditionally library house activities such as cataloguing, acquisition, circulation, reference and serial control.

Library Automation as posited by Aswal [10], is the computerization or mechanization of all library activities such as acquisition, circulation, cataloguing, serials and Online Public Access Catalogue (OPAC)

Library Services are those facilities in the library that enables librarians to perform their task diligently by providing clienteles with the readily available information at the right time and place to enable them to satisfy the information needs of the user.

Academic Libraries are libraries found in higher institutions of learning purposely to support research, learning and teaching.

Library users are the patrons or clienteles that comes into the library to utilize the available information resources in order to satisfy their individual needs.

Fayose [2000] cited in [11] identified **information resources** as those materials which enable libraries to carry out their functions effectively which are made of books and other information bearing media. It also includes everything that is used in providing the required information service to the client.

Fatokin quoted Molhot [1987] cited in Yakubu [12] in describing the *impact* of library automation in contemporary library services as:

"We no longer type or punch cards, the system supplies.

Users do not need to copy down call numbers before going going to the shelves, the online catalogue system print them out. Users don't sign for books; alight pen reads their identification cards. And the system charges the book out to them".

II. CURRENT STATE OF AUTOMATION IN NIGERIAN ACADEMIC LIBRARIES

Academic library in Nigeria are established to provide library services to users in order to cater for their information needs. Before this time, libraries in Nigeria were using traditional methods to offer library services to their users, but with the recent paradigm shift of technological advancement of some academic libraries, automation of library services has gained impetus in this libraries particularly with the support granted to universities in Nigeria by World Bank after setting some conditions in placed as a criteria for the award of the grant towards the implementation of automation in Nigerian libraries.

However, before the effort of National University Commission to standardize computerization project of library services in Nigerian University, Ossai-Ugbah [13]., it supported academic libraries with micro computer and four user Local Area Network version TINLIB software to each of the over 20 participating academic libraries in 1992 [14]. With these interventions, there were still setbacks in some universities with regards to substandard hardware and software, budget constraints, lack of trained personnel, lack of proper cloud computing storage and maintenance etc. Recent investigation has shown that, Ahmadu Bello University, Zaria and other participating libraries have now automated their library services to some extent. TINLIB, KOHA, CDS/ISIS, Alice for Window, VTLIS are the major softwares common in Nigerian universities libraries and databases like HINARI, AGORA, OARE, PROTA/TEEAL. With this development, there is no University library in Nigeria that is fully automated; only less than 49% of these libraries are partially automated, so more need to be done to overcome this challenge.

1. Features of Library Automation

a) It is an electronic based activity which is carried out by human beings.

b) It has the capability to transform the library to be more productive and efficient.

c) It is very appropriate for resource sharing and networking.

d) It is helpful for automation of library services[15].

2. Rationale behind Library Automation in Nigerian Academic libraries

a) Cost effectiveness: Automation helps to reduce the budgetary aspect of libraries by ensuring cost efficiency of operations.

b) Speedy retrieval of information: It will enhance speedy retrieval of information resources thereby improving patron services e.g. charging and discharging, OPAC etc

c) Automation helps to upgrade resource sharing network and sharing of databases at both national and international level by facilitating wider dissemination of information resources and services.

d) Reliability of information is guaranteed once imputed in the software and databases.

e) It helps to improve and increase operational efficiency and effectiveness of services by enhancing management and retrieval of information resources.

f) Growth of library collection: It helps to store large capacity of information by maintaining bibliographical records of all the information resources.

g) It enhances improvement of patrons' services through networking, resource sharing and internet application in libraries.

h) Speed: It helps to provide greater access to information resources within the shortest possible time.

3. Software/Databases Packages Used In Library Automation Including Some Indian Library Softwares

KOHA	TINLIB	GREENSTONE	SOUL
LIBSYS	X-LIB	GLAS	CDS/ISIS
ALICE for windows	SLAM	LIBERTY 3	VTLS
Wylisys	EGRARY databases	DOCUWARE	PHP My Library
Virtua	EDLS	Kulmark	Curator
LIBRARY PLUS	LIBSYS	ILM	WEBLIS
WINISIS	LIBINFO	LMS	MIDAS
MAITRYEE	MEMLIB	ULSIS	PALMS
HINARI	AGORA	OARE	PROTA/TEEAL

However, for the purpose of this study, **three** types of softwares created for library automation would be discussed namely;

➢ Commercial Software

➢ Open Source Software

➢ Shareware or Freeware Software

➢ **Commercial Software:** This type of software is usually developed for the purpose of businesses. It provides answers to multiple of application software since the market is not controlled by just a single company. Every company tries to develop the best software to meet the taste and needs of its customers. Example of these types of software developed on commercial bases are; SLIM, ALICE, LIBSYS, EASYLIB, SOUL e.t.c

➢ **Open Source software:** As the name implies, it is a software that is made or released free of charge to users to use. One interesting feature of this software is that, the user can not make any changes to it or redistribute it. It is open but with limitations.

➢ **Shareware or Freeware Software:** This type of software is usually released to users to use by studying it for a certain period. It's just like a trial version. This type of software does not allow redistribution and modifications. Example of this type of software is CD/ISIS etc [16]

4. Prerequisite For Library Automation In Academic Libraries In Nigeria

For full implementation of automation in academic libraries in Nigeria, the following needs to be considered;

i. Adequate Collections: The information resources in the library determines whether it would be automated or not. The larger the collections, the more the necessity for automation. It helps to increase efficiency in library automation functions.

ii. Budget: Without finance, automation cannot be achieved, because expenses are involved in implementing library automation. For example computers need to be bought, software, training of staff, entering of library data.

iii. Library software: Software enables the computer to perform the designed function, so seeking the right software for the library would help to bridge the gap that would bedevil the operation.

iv. Computer Hardware: The library also needs to be careful in selecting computer hardware for automation in the library, because there are so many marketers who are out there to sale substandard equipment which will not be good for the system. However, careful planning should be done and by buying hardware that would be software friendly for efficient library services.

v. Maintenance: Maintenance culture is one major issue that involves automation because of the nature of the computer hardware. They should be maintained from time to time to enhance better performance and efficiency of work.

vi. Staff and Patrons Development: Training staff and users is very important in library automation because it would help them on how best to use and manipulate the computer to achieve desired goal of their various information needs[17],[18].

5. Sections In The Library To Be Automated

The usage of software/databases cannot be applied in all the sections of the library, in view of this, it is therefore pertinent to mention some of these sections in the library where software/databases can be applied and buttress more on them as can be seen below;

❖ Acquisition

❖ Online Public Access Catalogue (OPAC)

❖ Circulation

❖ Serial Control

❖ Digital Library

❖ Administration

Circulation: This section in the library performs online charging and discharging of information resources, registration of clienteles and other services. Here, the officer can catalogue any information resources in urgent need by the clientele when it has not been catalogued through Online Public Access Catalogue

(OPAC). The clientele can also access information resources through virtual library using keywords like title, author e.t.c

❖ **Online Public Access Catalogue:** The OPAC helps to locate already processed information resources in the library by directing the staff and user to the appropriate location where the information resources can be found in the library. This is done by typing in the following search terms like title, author, class mark or call number e.t.c majority of the libraries are now using OPAC system for providing automated library services.

❖ **Cataloguing:** This is the process of describing the bibliographical characteristics of each information resources in the library. Cataloguing here, is done according to the standardize code of cataloguing using the Machine Readable Catalogue (MARC) format imputed into the OPAC of various libraries which is usually done from online catalogue of the Library of Congress and that of other participating libraries. For example in Ahmadu Bello University, Zaria, after editing, each item is copied in the OPAC carrying each bibliographical description of the information resources, then a barcode is finally assigned and then click on save where it can be accessed globally by participating libraries.

❖ **Classification:** Is the process of assigning class mark or call number using a standardized scheme of classification assigned to each information resources. Library of Congress has that feature particularly when one is using VTLS, by using the search term like title, author, ISBN etc, full information of the information resources would be displayed, and one extract the relevant call number to the title of the book.

❖ **Acquisition:** involves ordering of library information resources online through compute to the relevant book vendors. A list is sent together with the prices attached to it. The libraries do the conversion themselves after picking the relevant information resources as requested by other departmental Heads of Department and then send back the list to the vendor for onward supply.

❖ **Serials:** Most library engage their staff in rigorous training on how best to access the current electronic journal using JSTOR, EBSCOHOST, AGORA e.t.c Subscribing this journal is usually done on OPAC and sent to individual user to notify them of the latest issue of journal [19]. However, before automating a library, it is pertinent for libraries to first of all consider if the propose library automation would be economical, operational and technically feasible as shown below;

a. Economical Feasibility: In automating any type of library, one need to check and ensure whether the proposed project would be economical, he needs to know whether it would not involve huge budget in terms of maintenance, developing and staffing.

b. Operational Feasibility: Here one needs to ascertain whether the proposed projects would function well after implementation.

c. Technical Feasibility: Here the various libraries who wish to automate their library, needs to look at the already existing technology in the library and whether it can be integrated with automation and also hardware and software should be reliable and secured to ensure precision [20].

VI. CHALLENGES OF IMPLEMENTING AUTOMATION IN ACADEMIC LIBRARIES IN NIGERIA

For every technology introduced, there are always some challenges faced with it. For the purpose of this study,

the researcher has identified some challenges academic libraries in Nigeria often face when automating their library services;

❖ Designing information systems that meet specific vast amount of information.

❖ Integrating information technologies creativity and effectively into library and information services.

❖ Developing techniques to organize and retrieve vast amount of information.

❖ Sharing information resources through innovative networking and ensuring equitable access to broad range of information.

❖ Planning and implementing of high quality library and information services in the changing social and technological environment of the present era [21].

VI. BENEFIT OF LIBRARY AUTOMATION IN ACADEMIC LIBRARIES

[1.] **Increase Staff Productivity:** Automation helps to increase the efficiency and productivity of work done in the library by sharing of bibliographical records, using of copy catalogue and classification number, making union catalogue and use of other external databases. It also helps to increase to increase productivity by providing information to the right person at the right time and place.

[2.] **It reduces labour:** Library Automation helps to minimize the manual or traditional way of operation and helps to bring about the latest technology by making library processes uncomplicated.

[3.] **Library Cataloguing System:** It helps to create bibliographical information in Machine Readable Catalogue (MARC) for efficient library activities which involves acquisition, cataloguing, serial, circulation, reference, interlibrary loan and cooperating catalogue.

[4.] **Repeatability:** Automation of library saves a lot of valuable time and energy of the staff of the library by eliminating repetitive and cumbersome job of printing cards and other works in the library.

[5.] It will expedite fast and reliable sharing of information resources among libraries by controlling library space and time management.

[6.] It will help to control the budget of the library and enhances library cooperation and collection development.

VI. CONCLUSION AND RECOMMENDATIONS

In the last of couple of years, the National Universities Commission with some foreign organizations have tried to establish automation of library activities by way of improving efficient library services provided to users. However, the management/stakeholders of academic libraries in various institutions in Nigeria need to improve more;

• By acquiring/purchasing quality high standard and users friendly hardware equipments, softwares and databases.

• Involving huge budget in terms of maintenance, Development and staffing.

• Backup power storage and solar panel systems should be provided to serve as supplement to the problem of erratic power supply that has bedevil the nation academic libraries.

Finally, management/stakeholders of all the academic libraries in Nigeria should carefully plan and implement high quality library and information services due to the growing demand of users and the changing social and technological environment of the present era.

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