

Influence Of Automated Cataloguing and Circulation Systems Operation on Library Services in Three Selected University Libraries in South Western Nigeria

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Abstract: *The fundamental aim of every academic library is to provide an effective and efficient information services to its user community; hitherto, this could be greatly achieved if university libraries are automated. This study investigated the influence of automated cataloguing and circulation systems operation on library services in three selected academic libraries in South Western Nigeria. The study shows the capabilities and functionality of the library automation, role of automation in revolutionizing the library, level of automation in the university libraries, extent of automated circulation system operation, relationship between automated cataloguing and circulation system operation and challenges of automation in the provision of information needs of users. The study finally makes some recommendations in combating the challenges affecting university libraries in Nigeria.*

Keywords: *Academic libraries, Automated cataloguing, Circulation system operation, Library services, University libraries, Nigeria.*

I. Introduction

The pivotal role of university libraries is to support teaching, learning; research and community service of their parent institution through the provision of quick and accessible information resources. Today the advent and development of computer and Internet technology presents a great challenge to the traditional library management; in that, in the era of traditional library management system, information resources were basically in print form and the card catalogue was the entry point to the library's physical holdings which makes many libraries to experience backlog in cataloguing and circulating of their information materials.

Therefore, the area where change is essential is in the area of cataloguing and circulation process. As a result of the information explosion and the development in information technology (IT), it is imperative for an academic library to go outside the walls of its own collection to satisfy its clientele information needs (Adekanye, 2011). In order to exploit the immense resources available in this global village, a library must be automated and university libraries, in particular, need to join this trend if they are to remain relevant in meeting the information needs of their users.

II. Literature Review

The use of information and communication technology (ICT) is gaining momentum in university libraries especially now that most universities in Nigeria are adopting ICT in the development and improvement of their services (Oriogu, Ogbuiyi and Ogbuiyi, 2014). ICT have greatly improved the provision of information services in the library and its influence has revolutionized all the routine activities in the library. This change was possible because of automation. However, automation is the reality of 21st century and any library that ignores its capability in transforming the information environment is at risk of losing ground (Abbas, 2014). Yakubu (2013) asserts that library automation is the application of mechanical and electrical devices to carry out certain tasks, in the library which was formerly performed manually. It is the application of information and communication technology to take place of human organ of observation, effort and decision in order to achieve and improve productivity and efficiency in the library. It is based on this discourse that Shepherd (2000) noted that library automation has two major objectives:

- a. To improve access to information,
- b. To decrease, or at least not increase cost, by transferring low level, repetitive operations to a machine.

Before library automation, cataloguing procedure was done manually using the Anglo America Cataloguing Rules (AACR 2) and classification schemes by different libraries to process their information materials. Therefore, cataloguing is an intellectual process that requires rationale consideration and decision making in determining the class number of an information material; this whole process is time consuming which makes many academic libraries to experience backlogs which slows the smooth flow of information materials to circulation and reference sections. As a result of this rigorous process that takes time and cost intensive; university libraries have greatly relied on cataloguing copy (cataloguing in Publication) – i.e., descriptive cataloguing information done by Library of Congress. Hence, the advent of automated system transformed the manual cataloguing to MARC tapes and on books as the cataloguing in Publication. Later the Online Public Access Catalogue (OPAC) was adopted by academic libraries, using a Telnet client, and now users could search a handful of pre-coordinated indexes and browse the resulting display in much the same way they had previously navigated the card catalogue. It is pertinent to note that the automation of cataloguing only focus on one part of cataloguing activity which involves using a computer to facilitate access to cataloguing copy. It is as a result of this change in the library system, that most academic libraries have developed high interest in computer based library system.

In African continent, Rosenberg (2005) carried a survey on 40 African libraries and reported that majority of them (65%) are yet to complete the process of automation, while most libraries began with cataloguing, but have neither finished nor moved to other process, 13 (21%) are yet to start while 9 (15%) considered that they are fully automated. The growth of automated information services in Nigerian universities began to accelerate as from 1990, when the World Bank intervened with a loan to improve the institutional capacities of the Nigerian Universities, and with specific focus on automating the universities (Sani and Taimiyu, 2005). Earlier before then, individual efforts of some universities like university of Lagos, university of Ibadan and Ahmadu Bello University, Zaria to automatetheir library failed in the mid-1970s and 1980s largely because of lack of technical knowhow relating to software development and maintenance of hardware (Alabi, 1987). Today most university libraries are either fully or partially automated.

With the advent of the Internet, most academic libraries have made their OPAC accessible from a server to users all over the world. Automated catalogue integrates in two ways, by accommodating records of all forms of publications in a single database and through the unification of operation records.

According to Olufeagba (1977) circulation system operations is the mechanisation of activities such as charging of books to users, renewing of books, processing, reservation, monitoring of utilization of books, operating short term loans of document processing, overdue notices and calculating fines, answering library queries, discharging returned materials and checking for possible hold request. Circulation system operation is the computerisation of all the activities that are involved in the provision of services to the users. Therefore, automated circulation system operation controls subsystem which includes all the features and function needed to keep tract of the location of specific items (e.g., in reserve collection on long-term loan to a faculty member on inter – library loan, at the bindery or branches etc.), circulate them efficiently, and carry out all the checking, discharges and renewals. This system can automatically check borrower's records for overdue items; personalise messages, overdue notice, recall and reservation of library materials and also keep an up-to-date record of the location of all types of library materials in circulation and keep daily record of the increase of library materials. It is based on this discourse that Robert (1975) maintains that a more sophisticated use of statistics (which had hitherto been unavailable and unrealistic with manual system) to forecast, stimulate and model all phases of library operation especially those of circulation which will eventually sharpen management's ability to control by an order of magnitude the strength of library decision making and in formulating policy guidelines. This is why Venezaeno (1992) observes that an automated circulation system operation increases consistency in the system operations; improves response time for queries and other functions. He also notes that automated circulation system could simplify implementation of daily activities because circulation system is the "service centre of the library". Definitely Saffady (1989) maintains that:

"Library interest in automated circulation control is, in large part, based on a long-standing awareness of the problems inherent in manual circulation systems. These problems include labour-intensive and time-consuming recordkeeping work routines, in- accuracy, high personnel turnover, and inability to generate statistics about circulation activity, and the lack of an interface between circulation files and other library files which contain much the same bibliographic data. Circulation system operation is one of the most widely automated library operations, and it is often the first and simplest activity to be automated in a given library, possibly because circulation systems operation bear an obvious resemblance to inventory management, retail charge card operations, and other transaction processing activities which have been automated in general business applications. "

Manjunath (2004) added that automation eliminates cumbersome job of printing the cards, enhance simultaneous access to the same database as well as quick and remote access to information on the network. Also, Adeyemi (2001) opined that:

“Today, the librarian can rely on the computer to perform all the functions of a cataloguing system and more. Using an appropriate software, cataloguers can input data for each piece of item on pre-designed work-sheets resident on the system, as well as edit or revise such entries... Besides, it is now possible to go beyond the traditional fields of information on the catalogue card to provide additional access points using other criteria like the affiliation of authors, key words in the title, or thesaurus descriptors which the economics of manual cataloguing and classification did not encourage”.

The influence of automated cataloguing and circulation system operations have revolutionised the operation and use of academic libraries, with this technology, materials resources needed for teaching, learning and research becomes easy to access. However Nigerian libraries should develop interest in the use of modern technology to enhance their productivity and improve their services. It is against this background that this study intends to investigate the influence of automated cataloguing and circulation system operations on effective library services in three academic libraries in Nigeria.

Statement Of The Problem

The advent of information and communication technology (ICT) in the library system has increased effective information services delivery. It is with the aforementioned that cataloguing and circulation system operation were automated providing users the necessary platform for easy access, timely and effective library services. Despite all these benefits, Nigerian universities are still at the crawling stage of the automation of their library services. It is based on this premise that the study investigated the influence of automated cataloguing and circulation system operation on effective library services in three selected academic libraries in South Western, Nigeria.

Objective Of The Study

This study investigated the influence of automated cataloguing and circulation systems operation on library services in three selected academic libraries in South Western Nigeria.

The specific objectives of the study are to:

- 1) ascertain the level of automated cataloguing and circulation system operation in the provision of library services;
- 2) determine the extent of circulation system operation in the provision of library services to the respondents;
- 3) examine the relationship between automated cataloguing and circulation system operation in information delivery;
- 4) find out the challenges facing academic libraries in maintaining automated cataloguing and circulation system operation in South western university Libraries

Scope Of The Study

The study focused on the students of Ekiti State University, Federal University of Technology Akure , and Obafemi Awolowo University. The study also focuses on the influence of automated cataloguing and circulation systems operation on the provision of library services.

III. Methodology

Survey research method was adopted for the study and structured questionnaire was used to collect data. A total of two hundred(200) questionnaires were administered, retrieved and completed for analysis using frequency counts, simple percentage, and mean, to answer the research questions. Thus, Random sampling technique was used to administer the questionnaire.

IV. Discussion Of Findings

Demographical Variables:

Figure 1: Distribution of Student by Age

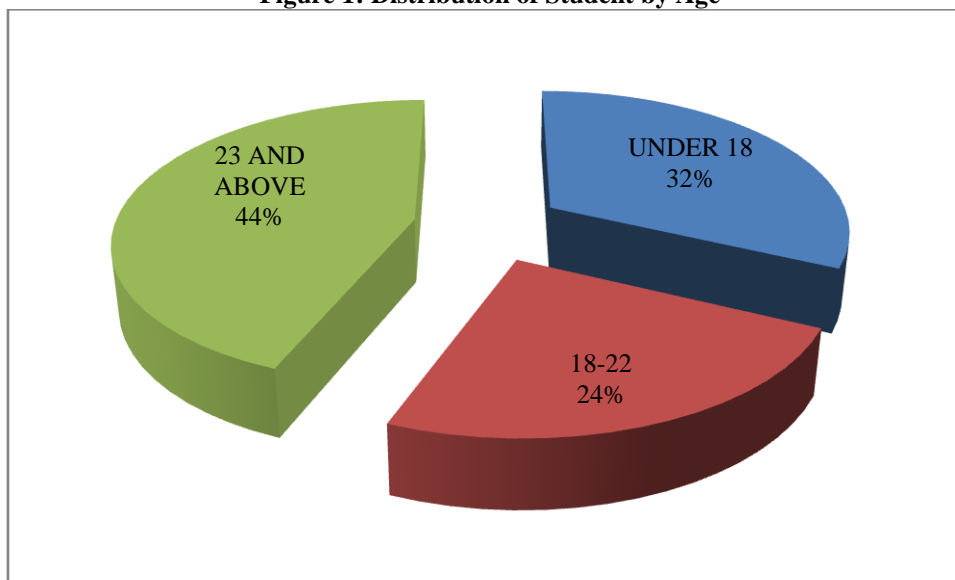


Figure 1 revealed that 32% of the respondents are under 18 years, 24% are between 18 - 22 years, while 44% are between 23 and above years.

Figure 2: Distribution of Student by Age

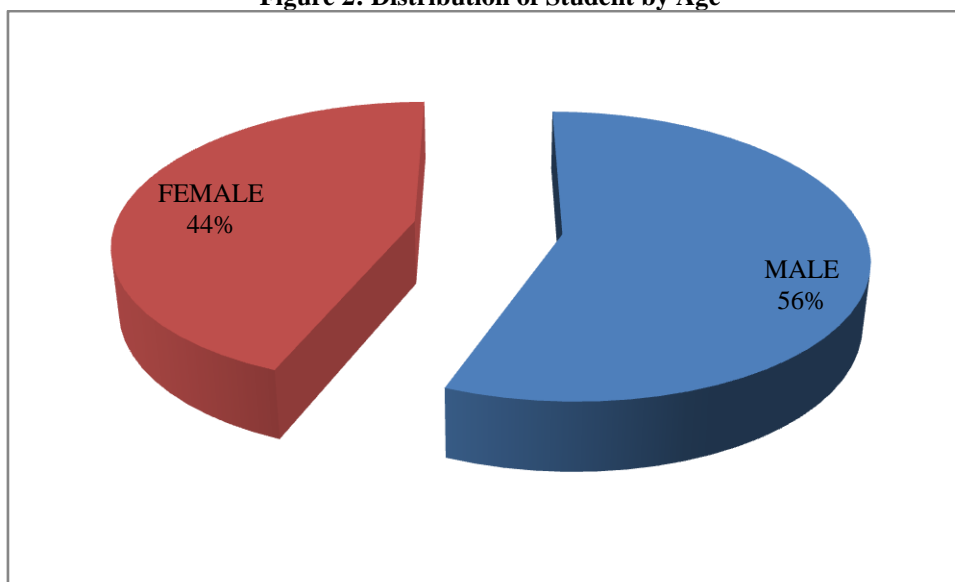


Figure 2 shows that male respondents accounted for the largest proportion at 56% while their female counterparts made up the remaining 44%.

Table 1: Distribution of Student by Level

Level	Frequency	Percent
100	28	14.0
200	31	15.5
300	71	35.5
400	39	19.5
500	31	15.5
Total	200	100.0

Table 1 shows that 28(14.0%) are 100 level, 31(15.5%) 200 level, 71(35.5%) 300 level, 39(19.5%) 400 level, while 31(15.5%) 500 level

Table 2: Level of Automated Cataloguing and circulation system operation

Statements	Yes	No
Is your library automated	165(82.5%)	35(17.5%)
Are all cataloguing and circulation operation activities automated	156(78%)	44(22%)
Is your automated catalogue and circulation system operation accessed online	22(11%)	178(89%)
Is the module interactive enough to provide users information needed	100(50.0%)	100(50.0%)

Table 2 shows that 165(82.5%) of respondents indicated that their library is automated; 178(89%) agreed that automated catalogue are accessed online; (50.0%) of the students agreed that the module are interactive enough to provide users with information needed.

Table 3: Extentof circulation system operation

Statements	Very Often	Often	Occasionally	Never
Circulation system operations ^s increases multiple access to information.	-	128(64.0%)	72 (36.0%)	-
Circulation system operation increases easy access to information.	8(4.0%)	128(64.0%)	64 (32.0%)	-
Circulation system operation increase sharing of information across wide range.	80 (40.0%)	88 (44.0%)	32 (16.0%)	-
Circulation system operations help to keep track of location of item in the library.	-	152 (76.0%)	48(24.0%)	-
Circulation system operations save time during search.	-	152 (76.0%)	24(12.0%)	24(12.0%)
Circulation system operations aid easy transfer of information.	8(4.0%)	120 (60.0%)	72(36.0%)	-
Circulation system operation reduces error during search.	-	104 (52.0%)	96(48.0%)	-

Table 3 revealed the responses of the students on the extent of circulation system operation in the provision of information service to the students. It was shown that 128(64.0%) of the respondents indicated that circulation systems operation increases multiple access to information; 128(64.0%), increases easy access to information; 88(44.0%) increases sharing of information across wide range; 152(76.0%) circulation system operations help to keep tract of location of item in the library; 152(76.0%) circulation system operations save time during search; 120(60.0%) circulation system operations aid easy transfer of information; and 104(52.0%) circulation system operations reduce errors during search.

Table 4: Correlation between Automated Cataloguing and Circulation System Operations

VARIABLES	N	Mean	R	r ²	P	Decision
Automated Circulation	200	26.2500	0.170	0.0289	0.016	Significant
Circulation system operations		34.8400				

The findings of the study as shown in the correlation table above revealed that there is positive relationship between automated cataloguing and circulation system operation on library services. The r value at 0.170 indicates a positive but low degree relationship between the independent variable (automated cataloguing and circulation system operation) and the dependent variable (library service). The implication of positive relationship between the two variables is library service effectiveness which is enhanced with improved automation of circulation. Similarly, findings also revealed that among the respondents, the r² value at 0.1250 showed that 2.89% of the variance observed in library service effectiveness was accounted for by automated circulation. Moreover, findings also indicated that the p value at 0.016 is less than the level of significance at 0.05 which further confirms that there is a significant relationship between the two variables.

Table 5: Challenges facing Automation in South western Nigerian Universities Libraries

ITEMS	STUDENT	
	YES	NO
Low speed access	192 (96.0%)	8 (4.0%)
Erratic power supply	184 (92.0%)	16 (8.0%)
Poor network	200 (100%)	-
Lack of computer literacy skill	48 (24.0%)	152 (76.0%)
Lack of full text online journals	72 (36.0%)	128 (64.0%)
Lack of sufficient computer systems	104 (52.0%)	96 (48.0%)

Table 5 revealed that 192(96.0%) of the respondents indicated low speed access; 184(92.0%) erratic power supply; 184(92.0%) poor network; 200(100.0%) lack of literacy skills; 72(36.0%) indicated lack of full text online journals; and 104(52.0%) indicated that there are lack of sufficient systems.

Discussion Of Findings

The finding shows that male students (56%) formed the majority of the respondents. The study revealed that 165 (82.5%) of the respondents indicated that their university libraries are automated and the module is interactive enough but 178(89%) of the respondents indicated that the automated cataloguing and circulation system operation is not accessed online. Based on the benefits of circulation system operation, the study shows that majority of the respondents indicated automated circulation system operation increases multiple access to information, easy access to information, increased sharing of information, saves time, reduces error and helps to keep track of location of item in the library.

Finally the findings indicated that low speed access, erratic power supply, poor network and lack of sufficient computer systems are challenges they respondents encountered on the use of automated cataloguing and circulation system operation.

V. Conclusion And Recommendations

The application of information technology in the library is essential to effective and efficient service delivery; in that automation of library services presents a significant change to the library development in Nigeria. However, an automated cataloguing and circulation system operation is the application of information technologies in the provision of information services. This study highly focused on the automated cataloguing and circulation system operation because of its influence in the provision of library services.

Therefore, it is safe to conclude that the influence of automated cataloguing and circulation systems operations on library services is tantamount to the growth of library and information services to academic institutions. Thereby academic libraries should endeavour to automate its operations in order to provide effective service to its users. The study also recommends that university libraries should endeavour to provide an effective Internet connection; steady power supply and sufficient computer systems in order to enable students fully utilize the library.

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