

Library Automation Status in the Universities of the Jabalpur Division Madhya Pradesh

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ABSTRACT

The research article tries to describe the status of Library Automation in the Jabalpur Division of the Madhya Pradesh State with special reference of the Universities. Researcher tries to describe the status of the library automation critically and conclude the study with the suggestion for betterment in future. The research scholar collects the data through questionnaire method for study. Paper also discussed about the term automation and Library –automation. Tries to describe the various issues/challenges in these day's related with library automation, which are directly or indirectly affect the library automation work/process in any Library. The Paper briefly describes some point/remedies for proper implementation of library automation in the universities library housekeeping and service sector.

KEYWORDS: Automation, Library-automation, Universities Library, Factor, issues, remedies and suggestion.

INTRODUCTION

University Library supports the main objective of the institute to become an institution of its repute in the field of respective knowledge domain. It is also committed to support the universities mission for seamless integration of teaching and research motivating entry of bright students and faculty into the institute, imparting high quality education in a research oriented environment to young and academically motivated undergraduate and postgraduate students.

Library plays an important role in supporting the academic programmes of the institute. It identifies, evaluates, procures, processes and then makes these learning resources available to the faculty and students for their teaching and research. Library has always been striving hard to meet the expectations of its users however, there has been a long felt need to bring clarity and uniformity in procedure and practices of the library to improve its efficiency, utility and services with save the time his/her users. Now in these day's we have just entered in new millennium or new technological era.

The Information and Communication Technology (ICT) make several changes in every walk of step also in Library Sectors. In recent decades we have witnessed the establishment of automation industries and library information networks and services around the world through use of ICT. The use of Information Technology tools facilitates a vast flow of information to end user via information services.

ICT makes several changes in the area of library information services such as book acquisition, cataloguing Serial - control, Web-Opac, CAS and SDI etc. And change the traditional library into the e-library or information centre. Library information Professionals are save budget, time manpower in routine jobs and able to provide effective library information services without any limitation.

Automation: What it is?

In the ancient times people worked by hand. They made every task, every works without any help. Later they began to do some simple (and later more complicated) machines, eg. water wheels for lifting water from channels, mills (water and wind mills) for milling corns, etc. They began to use animals to give their force, their power to get work machines, vehicles, etc.

In the XIXth century the machines were able to do many tasks. Steam engines gave the mechanical energy to machines, but the man had to control every machine and computer control all the data processing and retrieval process.

“The term automation is used in automatic manufacturing, control system, computing machinery or equipment that reduces the participation of human labour in production or services” – New Encyclopedia Britannica

“Any work which has been done with help of automatic machine like computer without any human interface is called automation. The biggest benefit of automation is that it saves labor, however, it is also used to save energy and materials and to improve quality, accuracy and precision”.

On the basis of the definitions of automation the following may be considered to be its essential characteristics:-

- The operations of processes are carried out automatically
- Avoids or reduces human actions and thus save labour
- Increases accuracy and quality of work
- Increases efficiency and speed- up the operations

LIBRARY AUTOMATION

The Phenomena of mechanization of traditional library activities, such as acquisition, serial control, cataloguing, circulation control etc., was called library automation.

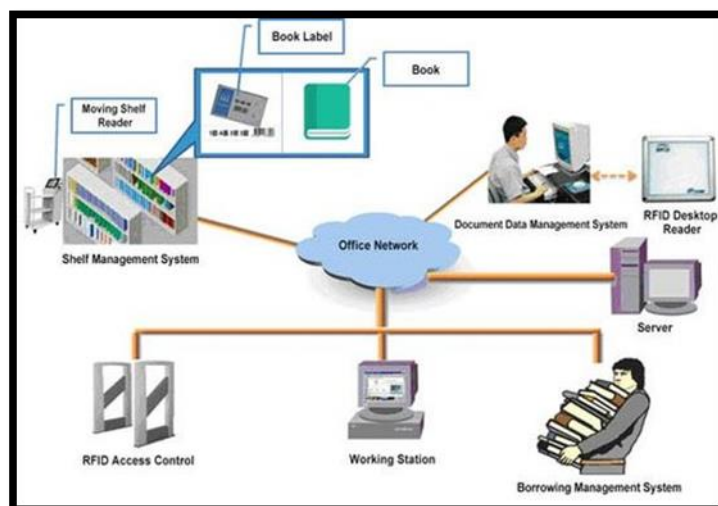
“Library automation refers to use of computers, associated peripheral media and utilization of computer based products and services in the performance of all type of library functions and operation. Computers are capable of introducing a great degree of automation in operation, function since they are electronic, programmable and are control over the processes being performed”.

Library automation is the general term for Information communication technologies that are used to replace manual system in the library.

AUTOMATION: ISSUES, CHALLENGES AND REMEDIES

Libraries are notorious for collecting and storing information in society. An endless supply of information is continuously generated in these institutions and anyone can readily access it regardless of time and space, thanks to the rapid advancement of computer technology in contemporary society. But the successful process of library automation has many issues and challenges are: need a proper planning, sound budget, lack of awareness of standard format, skilled or trained manpower etc.

There are some problems raised in library automation as follows:



(Fig.1 Area of Library Automation)

LACK OF PROPER PLANNING

Planning of library automation will involve proper feasibility study of the project to avoid waste of time, money, energy and to ensure the success of the project. In spite of its inherent benefits, library automation is a capital-intensive venture. This is because of the high cost associated with computer hardware and software. No project can succeed without a prior feasibility study. The adoption of any automation system in the library should be based on a wide range feasibility study, which will determine the adequacy of the programme. In light of the fact that there are now new hardwares and softwares used for library automation it becomes imperative for institutions to determine whether they have adequate sources of resources to operate library automation. Unless this is done, there are bound to be problems here and there.

A proper planning for library automation must include following points:-

- Objective of library
- Library finance and budget
- System analysis
- Identification of main area of library automation
- Sources of data/Standard format Z39.50, MARC, RDF etc.
- Hardware requirement
- Software for library automation : commercial or open source software
- Skilled professionals
- Maintenance and development
- Services via automation

LACK OF FUND/ECONOMICAL RESOURCES

The most crucial hurdle for a library in pursuit of automation is to obtain the necessary funds. The major obstacle for any innovations in developing countries is the lack of resources. The initial cost of establishing a computer system is beyond the reach of most organizations and institutions. Generally any successful and running operation required a sound financial aid for purchasing of hardware, software and other associate peripherals of ICT.

The library automation committee must keep in the mind expenditure for library automation and also for further maintenance and development cost for a successful automation process. A year wise development plan for library automation and service must add in the library automation plan.

LACK OF RESOURCES AND TECHNOLOGY

Most of the library encountered that the library automation work affected due to problem of un sufficient awareness of current technology like hardware , software issues.

The library defined clearly the goal and objective of the library automation and computerisation which is to provide wide access to digitized library collections, using computer based skills to dispense library services to the end-users. Library management decides on application software that could support integrated library management system. The application software to select must be assessed to determine its scope and capacity that will be suitable to achieve library goal. There are long lists of application software packages in the market. Few of these softwares are UNESCO micro CDS/ISIS, TINLIB, Konlib pro-library manager, X-lib, Alice for window, Integrated Library Software Koha, Greenstone, Glass etc. Using a well-drawn parameters as given by Adekanye (2011) the software packages were assessed.

According to Adekanye (2011) the suitability of a package could be assessed based on the following:

- Producer/vendor reputation and reliability base on the performance of previous installations
- Software functional flexibility and expandability
- Indexing and searching capabilities
- Interactivity of input and output interfaces
- System security provisions
- Good system documentation and manuals
- Cost
- Scope of customer training
- Possibility of system upgrading
- Compliance with the Internet

LACK OF COMPETENT AND WILLING MANPOWER

Emphasis in library education had previously been on traditional librarianship. The building up of a collection and its organization and administration dominated the curricula. Information science information technology failed to find appropriate representation in the courses. This resulted in a scarcity of librarians who could plan, design, program and implement various information projects. It is also true that the vast majority of the present generation of librarians have inadequate knowledge about computers and their potential in library and information work. The efforts made to redress the situation have not helped very much. Three successive revisions of curricula and two reports on the subject have failed to find support from library schools, with regard to incorporation of information science courses into their curriculum. What made them oblivious to implementation of the many reasons, two are of particular importance: the lack of training laboratories with adequate information technology equipment, and the non-existence of a competent faculty with adequate qualifications in information technology.

LACK OF SKILLED OR TRAINED STAFF /PROFESSIONAL

Another problem is associated to dearth of professionally trained and unskilled staff. The level of short staffing is apparent while the little on ground are so little or no computer knowledge. This posed a lot of technical problems to the automation exercise. In moreover cases it was found that one or two professionals are saddled with the responsibility of managing the system unit there by limiting the outcome of service delivering to clients.

Software Package

Another problem encountered during study some of the libraries chosen the software for automation commercial or open source is not proper in different manner; lack of some module as per the requirement, programming language, report generation, back-up and administration features are tuff for library professionals. There is a need arise to clearly mention needs and support from the library professionals side at the library automation implementation.

Other problems

Other problems encountered include the absence of committee consultants and Computer experts in library automation, a lack of infrastructure facilities poor (communication facilities and irregular power supply, the poor library) environment and the small amount of information contained in libraries, collaboration with system provider/software

Impact of Automation

Studies of office, industrial, and library automation report that automation has the greatest impact on staff in the lower levels of the organization where the work is routine; and less impact at the top where authority and decision making are concentrated (Kraske, 1978; Zuboff, 1982, 1985, 1988; Shiff, 1983; Atkinson, 1984; Diebold, 1984; Freedman, 1984; Roscow, 1984; Dakshinamurti, 1985; Waters, 1985, 1986, 1988, 1989; Caudle & Newcome, 1986; Lynch & Verdin, 1986; Horny, 1987; Bergen, 1988; DeKlerk & Euster, 1989; Jones, 1989; Forester, 1989; Harris et al, 1989; Hoer et al, 1989; Long, 1989; Olsgaard, 1989; Smith, 1989; Prentice, 1990).

The literature suggests that the positive effects of automation are:-

- ❖ A reduction in repetitive work and tedious procedures
- ❖ An increase in skill level
- ❖ Possibly higher job satisfaction
- ❖ An increase in the variety of tasks
- ❖ Greater flexibility
- ❖ Integration of various Library house-keeping services

Scope of the study

The scope of the study entitled “Library Automation Status in the Universities of the Jabalpur Division {Madhya Pradesh}” is limited to the university libraries in Jabalpur Division of Madhya Pradesh. The study includes all the Five university libraries in Jabalpur Division established on or before 2015, namely: Rani Durgavati Vishwavidyalaya (Rani Durgavati University), also known as University of Jabalpur-1956, Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), also Jawaharlal Nehru Agricultural University Library-1964, Nanaji Deshmukh Veterinary Science University, formerly Madhya Pradesh Pashu-Chikitsa Vigyan Vishwavidyalaya Library-2009, Indian Institute of Information Technology, Design and Manufacturing, Jabalpur (IIITDM Jabalpur), also known as Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing-2005 and Maharishi Mahesh Yogi Vedic University, also known as Maharishi Mahesh Yogi Vedic Vishwavidyalaya (MMYVV), Katni-1995.

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The decision regarding the selection of five university libraries for this study is based on some logic and justifications. All these five universities form part of the Jabalpur Division, which is an important region of India for all purposes. All these universities have well established libraries and are recognised by the University Grants Commission (UGC), India. All the five university libraries were established during the period 1956 to 2009 hence some are very old and a few are in developing stage.

Objectives of the study

IT has brought drastic and dramatic changes in the functioning of the libraries and the services they provide. Automation in university libraries of Jabalpur Division was started in early 2000's. During the last one decade, these libraries have automated some of their functions, and have started providing some of the computer-based services. Since quality has become the trademark in all spheres of human activities, and therefore, libraries are no exceptions. The main objective of this study is to measure the level and status of library automation in university libraries. It is investigation of the existing scenario of library automation. The second objective is to find reasons for lower level of automation than the desired level and suggest corrective measures.

METHODS OF DATA COLLECTION

Since the problem under investigation was very complex and of comprehensive nature, therefore, questionnaire and observation techniques were used for data collection from five libraries settings. The original research data collected for the purpose of exploring automation application in university libraries. The paper draws heavily on library survey and is complemented and supplemented by the study and synthesis of the existing literature on library automation in retrospect and prospect. However, qualitative data (views, opinions, and attitudes) measured and observed.

Data Analysis: The data have been presented, compared, and analysed by using tables.

Table 1 Number of Books in the Library

Number of Books in thousand	Number of Libraries	Percentage (%)
Less than 10	00	00
11-30	02	40
31-60	01	20
61-90	01	20
More than 90	01	20

Table 2 Number of CD-ROM/DVD-ROM in the Library

Numbers	Number of Libraries	Percentage (%)
Less than 500	04	80
500-1000	01	20
More than 1000	00	00
Not Available	00	00

Table 3 Number of Sections in the Library

Numbers	Number of Libraries	Percentage (%)
Acquisition Section	5	100
Circulation Section	5	100
Reference Section	5	100
Periodical section	3	60
Stack Area	5	100
News Papers	4	80
Audio-Visual	3	60
Digital Room	3	60
CD-DVD ROM	3	60
OPAC	3	60
Reprography	3	60
	5	100

Table 4 Trained staff for the Library Automation

Distribution of Staff	Number of Libraries	Percentage (%)
Trained Staff	02	40
Semi-Trained	01	20
Untrained	02	40

Table 4.1 Technical Qualification for the Library Automation

Distribution of Staff	Number of Libraries	Percentage (%)
PGDLAN	00	00
PGDCA	01	20
DCA	00	00
Other	00	00
Not have any technical qualification	01	80

Table 5 Total Library Budget

Budget (In Lakh)	Number of Libraries	Percentage (%)
Less than 5	01	20
5-10	00	00
11-15	02	40
16-20	01	20
More than 20	01	20

Table 6 Budget for Library Automation

Budget (In Lakh)	Number of Libraries	Percentage (%)
Less than 5	03	60
5-10	02	40
11-15	00	00
16-20	00	00
More than 20	00	00
No any budget allotted	00	00

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Table 7 Budget for IT equipment installed in the Libraries

Budget (In Lakh)	Number of Libraries	Percentage (%)
Less than 10	05	100
11-20	00	00
More than 20	00	00
No any budget allotted	00	00

Table 8 Availability of Computer and other automation equipment in Libraries

Description of equipments	Number of Libraries			
	YES	PERCENTAGE	NIL	PERCENTAGE
Computer	05	100	00	00
Computer-Server	04	80	01	20
Clients	04	80	01	20
Printer	05	100	00	00
LCD Projector	00	00	05	100
Scanner	03	60	20	40
Barcode Scanner	04	80	01	20
UPS	04	80	01	20
Backup-Device	04	80	01	20
Internet Connectivity	05	100	00	00
Photocopy Machine	03	60	02	40

Table 9 Level of Server used in Library Automation

Level	Number of Libraries	Percentage (%)
General	01	20
Average	02	40
Good	01	20
Best	01	20

Table 10 Level of Clients used in Library Automation

Level	Number of Libraries	Percentage (%)
General	01	20
Average	02	40
Good	01	20
Best	01	20

Table 11 Level of Network and other equipments used in Library Automation

Level	Number of Libraries	Percentage (%)
General	01	20
Average	03	60
Good	01	20
Best	00	00

Table 12 Availability of Web-Server used in Library Automation

Availability	Number of Libraries	Percentage (%)
Yes	02	40
No	03	60

Table 13 Availability of Internet in Library Automation

Availability	Number of Libraries	Percentage (%)
Yes	05	100
No	00	00

Table 14 Availability of Online Features in the LMS

Availability	Number of Libraries	Percentage (%)
Yes	03	60
No	02	40

Table 15 Availability of RFID Technology in the Library

Availability	Number of Libraries	Percentage (%)
Yes	02	40
No	03	60

Table 16 Use of LMS in the Library Automation

LMS	Number of Libraries	Percentage (%)
Sanjay	00	00
Libsys	00	00
SOUL	00	00
KOHA	02	40
SoftGranth	01	20
e-Lib	01	20
Solyman	01	20

Table 17 Availability of updation feature in the LMS

Availability	Number of Libraries	Percentage (%)
Yes	02	40
No	00	60

Table 18 Present Status of Library Automation

Availability	Number of Libraries	Percentage (%)
Complete	03	60
Partially	01	20
In Process	01	20
Not yet started	00	00

FINDINGS FROM THE STUDY

The implementation of library automation software is a challenge that brings with it a completely new environment for library staff and library users. The study shows that the status of library automation in Jabalpur Division of Madhya Pradesh and limited to five universities of the Jabalpur Division cannot be compared with that of any other region of Madhya Pradesh.

Library Automation Status in the Universities of the Jabalpur Division Madhya Pradesh

All the Five university libraries in Jabalpur Division established on or before 2015, Rani Durgavati Vishwavidyalaya (Rani Durgavati University), Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Nanaji Deshmukh Veterinary Science University, Indian Institute of Information Technology, Design and Manufacturing, Jabalpur (IIITDM Jabalpur) and Maharishi Mahesh Yogi Vedic University are implemented the Library Automation, some important findings and suggestion submitted below:-

- ❖ Table 1-Number of Books in the Library: All the Libraries have a good collection of printed books for his/her users academic need as per the collected data number of books volume more than 11 thousand and some libraries have collection of books more than 50 thousands so library automation is main concern to the fast and accurate services to the library users.
- ❖ Table 4-Trained staff for the Library Automation: Human resources are the most primary and most crucial factors in determining quality level of a library. A Successful Library Automation required well-trained technical staff for support the Library Automation. There is 40% trained, 20 % semi-trained staff and 40% untrained staff. Study shown there is need of more trained staff or training and skill development required for the library staff for achieve the goal and mission.
- ❖ Table 6-Budget for Library Automation: All five libraries are being fully supported by university authorities in the matter of finance and infrastructure even than progress in these libraries is not to the mark because of lack of sufficient funds. Therefore, libraries have to first develop a proper plan for upcoming expenditure for quality and then quality culture will emerge automatically and will streamline every aspect of library automation. In summarized way there is also need of more budget allocation for the Library Automation.
- ❖ Table 7- Budget for IT equipment installed in the Libraries: All five libraries are being fully supported by university authorities in the matter of finance and infrastructure for IT equipments installed in the libraries libraries have to must keep in the mind the future needs and develop a proper plan for upcoming expenditure for updation of IT equipments.
- ❖ Table 8- Availability of Computer and other automation equipment in Libraries: All five libraries have a good infrastructure for Library Automation. There is need of self service module for the users.
- ❖ Table 9- Level of Server used in Library Automation: All five libraries have Server for automation. There only one library have a current configuration with server system. The study suggest to all other libraries to update or replace the server so they find more safety and space for user services.
- ❖ Table 12- Availability of Web-Server used in Library Automation: Only two libraries have Web-Server for automation. There are many advantages to using a web server within your development environment. Of course, in a production hosting environment, a web server is essential. And, depending on your website, a web server could indeed be essential in your development environment. Web-Server allows to save your back-up in cloud. The study suggest to other libraries to use Web-server for big achievement and future prospectus.
- ❖ Table 15- Availability of RFID Technology in the Library: Only two libraries installed the RFID based self check-in and check-out stations and security system. The RFID solutions needed more budget to installation and operation. Libraries take decision on availability of budget.
- ❖ Table 16- Use of LMS in the Library Automation: Two libraries installed the Open source LMS KOHA other three libraies customized the LMS on their desired needs.
- ❖ Table 17- Availability of updation feature in the LMS: Two libraries installed the Open source LMS KOHA and the S/w provide updation of upcoming version. Other three libraies customized the LMS the service provider not provide updation of LMS.

- ❖ Table 18- Present Status of Library Automation: Three libraries completely done the automation process. One library partially done the automation and remain one library work on it and process in progress. We wish to all libraies as soon as achieve their goal and mission through automation and fulfill five laws of LIS.

CONCLUSION

The challenges discussed above should be born in mind by program implementers if they are to succeed. Any attempt at automating academic libraries should be one of trial and error and should be collectively done. The study shown the Library Automation in progressive stage in Jabalpur Division Universities Library. There is need to recruit more technical manpower and train them as per need. Library Automation budget allocation is one more important factor is there, administration focus on this and support the library automation programme. Only through this will academic libraries be able to provide effective and functional services and thereby maintaining their edge as leading libraries in the region.

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