EXPLORING THE USAGE OF VARIOUS LIBRARY SOFTWARE IN ENGINEERING COLLEGE LIBRARIES OF PUNJAB

Mahipal Dutt
P.C. Sehgal

Mr. Mahipal Dutt
Librarian
Khalsa College for Women,
Sidhwan Khurd,
Ludhiana – 142 024, PUNJAB
ORCID ID: http://orcid.org/
0000-0003-3409-9355
Email: librarianmd@gmail.com
Corresponding Author

Dr. P.C. Sehgal
Professor and Head
Dept. of Library and
Information Science
RIMT University Mandi,
Gobindgarh – 147 301, PUNJAB
Email: pcsehgal@rimt.ac.in

The Information & Communication Technology (ICT) plays a vital role in library science, and automation is one of them. This article outlines the importance of library automation. It seeks to give information regarding the use of various library software and the popularity of library automation software in engineering college libraries within Punjab state. The study further analyzed different modules employed in these libraries and found that most libraries use in-house ILMSs. Three to four modules are fully used in more than half of the libraries, and one to two modules are used either partially or not in most libraries. Most academic libraries use proprietary software because they will get enough support and regular updates from the vendor. In open-source software, the library staff should update themselves with technical staff.

INTRODUCTION

Since library automation inception, library professionals use it in their routine library activities to enhance the performances. Throughout India, libraries and education center trend commenced in the mid-1980s, whereas in developed nations were in mid-1960s. The University Grants Commission (UGC) developed INFLIBNET to facilitate the automation process in college / university libraries.

Automation in the library means using computers and other ICT tools for traditional library services. If library housekeeping operations such as cataloguing, circulation, and others are automated, it can ensure more effective and efficient library services. It enhances the library staff's performance and, in turn, ensures better library services to its users. Libraries can provide better library facilities such as remote access to resources and services automating library services. In short, Library automation is the need of the hour, specifically in this information explosion era.

REVIEW OF LITERATURE

Library automation is the pillar to provide better and enhanced library services (Gaffar & Pati, 2020). Technology has changed the way of working of libraries, and ICT tools and techniques are the game-changers (Lata & Sonakar, 2020; Sahoo & Panda, 2019). It is necessary to adopt the IT revolutions in libraries to bridge the digital gap between the information-rich and information-poor. The government should invest in public libraries to automate the libraries and make a knowledge society (Samatha, 2018). The Library automation process is not up to the satisfaction level and does not meet the user information requirements. Librarians should ensure the optimum use of library services and resources (Laskar and Mozumder, 2020).

Naveen and Kannappannavar (2019) conducted the study to analyze the resources, Services, Information and Communication Technology (ICT) infrastructure, Classification, Cataloguing, library automation, and financial sources of Government First Grade Colleges affiliated to Kuvempu University, Shankarghatta, Karnataka. The authors concluded that libraries should equip themselves with the modern ICT tools and techniques to meet the information requirements and serve their users effectively and efficiently in this information explosion era. Shanmukhappa, Satheesha and Swamy (2019) concluded that the institutions must give importance and step forward for library automation and digital library system using open-source software. Emasealu (2019) studied the automation status of academic libraries in Nigeria. The author concluded that the library software functions are under-utilized in these libraries and recommended that the librarians be well equipped with the skills to use ICT tools and techniques to maximize library software functions for the development and enhancement of libraries. More emphasis is laid on staff training, and the ICT skills of LIS students are excellent and satisfactory. To sharpen the ICT and other related professional skills, LIS schools should adopt effective pedagogical methods. (Hossain & Sormunen, 2019, Kumari, 2019). Some factors, such as ICT infrastructure, training, finance, etc., should be considered while migrating or when embarking on library automation using ILMS Guidance by local library associations and selecting ILMS, training, etc.

Library automation should include in LIS curriculum (Ponelis & Adoma, 2018; Sankaranarayan, 2019). In this era of a new paradigm towards the online realm, the existing library resources and services need to be redesigned. The libraries need to add digital resources and services. (Singh, 2019). Nayana (2019) studies the library automation status in aided college libraries in Bengaluru and found that most of the libraries are automated. However, all the modules are not being used in library software. He also discussed the problems faced or factors for not automating the library services. The status of automation is pathetic in Public Libraries in Punjab, Central State Library, Patiala is the only fully automated library in Punjab (Nath & Chauhan, 2019). Whereas, Agricultural and Veterinary Universities of Chhattisgarh and Madhya Pradesh have fully automated libraries using Koha ILMS and having RFID facilities (Pandey, 2019).

OBJECTIVES OF THE STUDY

· To study the status of automation in selected Engineering College libraries in Punjab;

· To study the use of library software in engineering college libraries in Punjab; and

· To examine the functionality of different modules of the ILMS in various library software being used.

RESEARCH METHODOLOGY

The target population of this study is the AICTE approved engineering college libraries of Punjab. The population data was retrieved from the AICTE website (www.aicte-india.org). A descriptive survey research method was adopted, which used a structured questionnaire method to collect the data. There are 100 AICTE approved Engineering Colleges in Punjab affiliated with various universities in the state. Out of these 100 colleges, 81 (81%) duly filled questionnaires were received and analyzed. Further, the data is tabulated and analyzed using appropriate statistical techniques to draw findings and results.

RESULTS AND DISCUSSION

Year of Library Automation

The libraries have adopted automation of their activities during the below mentioned period. The data reveals that 8 (9.88%) libraries have adopted automation during 2000-2005 while 41 (50.62%) libraries have automated library activities between 2006 and 2010. Only 27 libraries out of 81 have automated operations during 2011-2015, while five libraries have not yet initiated the automation process. Thus, it is clear that most of the libraries have automated their housekeeping operations from 2006 to 2015.

Table 1: Year of Library Automation

Sl. No.	Year of Automation	No. of Libraries	%age
1	2000-2005	8	9.88
2	2006-2010	41	50.62
3	2011-2015	27	33.33
4	Not Available	5	6.17
	Total	81	100

Status of Library Automation

Automating library services with the help of computer peripherals and other ICT tools enhances efficiency in services. Fully automated libraries mean that all the library services are automated and use all the modules of ILMS. Likewise, the libraries that are using some of ILMS modules are called partially computerized libraries. From the analysis of the data given in the table 2, it is clear that 22 (27.17%) libraries have adopted the automation fully for their housekeeping operations. 54 (66.66%) libraries have adopted it partially. They have made some of the modules automated while others are doing manually of the ILMS or proprietary software. Rest 5 (6.17%) libraries have not automated their functions and use manual methods to perform their functions. Thus, most of the libraries have automated their operations, either fully or partially.

Table 2: Status of Library Automation

Sl. No.	Status of Automation	No. of Libraries	%age
1	Fully Automated	22	27.17
2	Partially	54	66.66
3	Not Automated	5	6.17
	Total	81	100

Use of Library Automation Software

An Integrated Library Management System (ILMS) is designed to perform housekeeping operations of the library, such as acquisition, circulation, cataloguing, etc. There are various open-sources as well as proprietary ILMSs. The various ILMSs being used by engineering college libraries is given in table 3. The analyzed data shows that Koha ILMS is used by 9 (11.11%) libraries, while eGranthalaya is being used by 15 (18.52%) libraries. Alice for Windows, Libsys, and SOUL are being used by only one library each, whereas in-house proprietary software is being used by the most, i.e., 49 (60.50%) libraries. Five libraries have not initiated and adopted the automation process and are performing the housekeeping operations manually. Thus, it can be summarized that most of the libraries use in-house proprietary software due to its easy handling and tailor-made facilities.

Table 3: Use of Library Automation Software

Name of Software	No. of Libraries	%age
Koha	9	11.11
eGranthalaya	15	18.52
Alice for Windows	1	1.23
In House	49	60.50
Libsys	1	1.23
SOUL	1	1.23
Not Automated	5	6.17
Total	**81**	**100**

Automation Level of various modules

Every ILMS has various modules to serve automated library services to the users. It is evident from the data that the acquisition process is automated, and the module is being used properly in 38 libraries, whereas 67 libraries use cataloguing module. Likewise, the circulation module is being used by most of the libraries, i.e., 74, while the serial control module is automated and is in use in 27 libraries. Access to the administration module is available in 43 libraries only, whereas OPAC is available in 60 libraries. Thus, it is clear that circulation and cataloguing modules are the most used modules. It is also clear that access to administration control is available in a few libraries.

Table 4: Automation Level of various modules

Module	Fully Automated	Partially Automated	Not Initiated
Acquisition	38	24	14
Cataloguing	67	9	0
Circulation	74	2	0
Serial Control	27	22	27
Administration	43	30	3
OPAC	60	12	4

Bibliographic Standard

The cataloguing and sharing of such details between bibliographic standards of libraries focus on providing bibliographic information in machine-readable form to facilitate the technical processing of acquisitions. It is found from the data that 24 (29.63%) libraries are using MARC bibliographic standard for cataloguing their materials while 3 (3.70%) are using Common Communication Format (CCF). 30 (37.04%) libraries are using the localized format for bibliographic standards as per their requirements. In 19 (23.46%) libraries, no measure is being

used, while five libraries have not initiated the process at all.

Table 5: Bibliographic Standard for Records

Sl.	Standard	No. of	%age
1	MARC	24	29.63
2	CCF	3	3.70
3	Localized Format	30	37.04
4	Not Initiated	19	23.46
5	Not Available	5	6.17
Total		**81**	**100**

Barriers to use / implement Automation

Out of the total 81 libraries that responded, library professionals in 8 libraries have mentioned that they are facing some problems in automating their library services or unhappy with the present software's functioning, even after having an ILMS in their libraries. The professionals in other libraries are satisfied with the services of present ILMS. The problems include No administrator access to control the software as per requirements, hefty annual maintenance charges charged by the vendors, etc. The data shows that the library professionals in 8 libraries are not satisfied with the automation software's functioning. Out of these 8, library professionals in 4 libraries stated that they have no administrator access and cannot control the

Table 6: Problems being faced after automation

Nature of Problem	No. of Libraries
No Administrator Access	4
Annual Maintenance Charges	3
Others	1
Total	**8**

software as per their needs. Likewise, in 3 libraries, the professionals are not happy with the AMCs being charged.

Level of Satisfaction

Most of the library professionals are satisfied with the software they are using. There may be various factors, including the practice of use, easy handling, and tailor-made facilities. Library professionals in some of the libraries are dissatisfied and face difficulties even after the automation of library services. By observing the data given in the table and the graph, it is clear that library professionals are satisfied with the ILMS or LMS or ERP system they are using to automate their housekeeping operations in 73 (90.12%) libraries. Whereas in 8 (9.88%) libraries, they are not satisfied with the software they are using. Thus, most of the professionals are happy with the software they are using.

Table 7: Level of Satisfaction with the automation software among the Librarians / Library staff

Sl. No.	Level of Satisfaction	No. of Libraries	%age
1	Satisfied	73	90.12
2	Not Satisfied	8	9.88
Total		**81**	**100**

Preference of Library Software for automation (In case of not automated or not satisfied with the present software)

Some library professionals are not satisfied with the present status of library automation and want to change the ILMS. It is found from the analysis of the data that in 75 (92.59%) libraries, professionals are satisfied and are preferring to use the same ILMS, LMS, or ERP system. In

comparison, in 6 (7.41%) libraries, professionals are not happy and want to migrate to Koha. Thus, we can conclude that most of the libraries are already automated, but Koha ILMS is the first preference among the professionals in no automation.

Table 8: Preference of Library Software for automation

Sl. No.	Quantity	No. of Libraries	% age	Valid % age
1	Koha	6	7.41	100
2	Already Automated and Satisfied	75	92.59	
	Total	**81**	**100**	

Reasons for No Automation

Five libraries have still not adopted automation and are providing the services and performing housekeeping operations manually. Some of the primary reasons for not automating the library services: Lack of expertise of the Library Staff; Insufficient funds; Inadequately trained staff; Lack of coordination among the staff; Lack of ICT knowledge on the part of users; Lack of interest by the library committee; Lack of support from management.

SIGNIFICANCE OF THE STUDY

Automation of library services is the need of the hour. There is an increasing pressure on libraries to organize their collection well to make every document in the library accessible. The library automation increases the efficiency of library and library personnel. The study is vital because it aims to establish the status of the various library software and their modules so that the actual automation situation in the engineering colleges of Punjab can be presented.

SUGGESTIONS

After analyzing data, some suggestions may be considered to serve library users in a better way. Firstly, library staff should be provided with training to keep them updated about the latest developments at regular intervals. Secondly, software should be chosen judiciously and as per local requirements. Complete, sufficient, and duly compatible hardware should be provided to the libraries to automate their services. Sufficient funds should be provided to the libraries to initiate automation. Libraries should use open-source Integrated Library Management Systems, which will reduce the automation cost. Standardized Library guidelines should be followed so that resources and services are utilized to an optimum extent. All the modules of the software should be used entirely to provide effective library services.

CONCLUSION

In the present era, Library automation is essential for all libraries. Based on their budget availability, the Libraries started the process of using automation software. Most academic libraries use proprietary software because they will get enough support and regular updates from the vendor, whereas, in open-source software, the Library staff need to update themselves with technical staff. Most of the time, the library staff will not get enough support from the technical staff, so they adopt proprietary software to manage the resources. Before the selection of any software, the library staff should do a proper evaluation of the software.

REFERENCES

1. All India Council for Technical Education. AICTE approved Engineering Colleges in Punjab.

2. Emasealu, H. U. (2019). Automation of Academic Libraries and Web Development: A Reverie or Reality. *International Journal of Knowledge Content Development &*

Technology, *9*(1), 43–56. http://dx.doi.org/ 10.5865/IJKCT. 2019.9.1.043

3. Gaffar, A., & Pati, J. (2018). Library Automation: A Proposal of Using Koha Library. *VSRD International Journal of Library & Information Science*, 4(1), 8–16.

4. Hossain, M. A., & Sormunen, E. (2019). ICT Skills of Library and Information Science (LIS) Students in Bangladesh. *International Information and Library Review*, *51*(4), 285–299.

5. Kumari, S. (2019). Evaluation and analysis of libraries in light of digitization and automation. *Journal of Information and Computational Science,* 9(9), 134-141.

6. Laskar, R. U., & Mozumder, S. K. (2020). Issues and challenges of ICT application and library automation in the newly provincialized degree colleges of Barak Valley, Assam: a survey. *Journal of Critical Reviews* 7(18), 3306-3315.

7. Lata, N., & Sonkar, S. K. (2020). Impact of ICT on Learning Activities of Users by Academic Library Services: A Literature Review. *Library Philosophy and Practice (e-Journal)*, 4438.

8. Nath, A., & Chauhan, S. K. (2019). State Of Public Libraries In Punjab (India): A Preliminary Study. *Library Philosophy and Practice (e-journal), 2700.*

9. Naveen, C., & Kannappannavar, B. (2019). Sources, Services and ICT Infrastructure in Govt. First Grade College Libraries: Colleges affiliated to Kuvempu University. *Library Progress (International)*, *39*(2), 297.

10. Nayana, J. (2019). A study on library automation status among the aided college libraries in Bengaluru. *Library Philosophy and Practice*, *2019.*

11. Pandey, A. (2019). Status of Library Automation and Services in Agricultural and Veterinary Universities of Chhattisgarh and Madhya Pradesh. *Indian Journal of Agricultural Library and Information Services*, *35*(1), 14-27.

12. Ponelis, S. R., & Adoma, P. (2018). Diffusion of open-source integrated library systems in academic libraries in Africa: The case of Uganda. *Library Management*, *39*(6–7). https://doi.org/10.1108/LM-05-2017-0052

13. Sahoo, S., & Panda, K.C. (2019). *Library Technology Solutions for Smart Libraries: A comparative Study of IIT Delhi and IIT Bombay Library System.* CALIBER – 2019 proceedings 1–19.

14. Samatha, B. (2018). Automation of Public Libraries in the State of Telangana: A Proposal. *Journal of Indian Library Association*, *54*(1), 11-15.

15. Sankaranarayanan, D. (2020). An analytical study of ICT literacy among library professionals in the engineering college libraries of Tamil Nadu. *Mukt Shabd Journal, IX*(Viii), 900–914.

16. Shanmukhappa, K., Satheesha, H., & Swamy, D. (2019). Mindfulness of Library Automation among the Information Professionals in Academic Libraries in Karnataka. *International Journal of Library and Information Studies, 9*(4), 100–106.

17. Singh, P. K. (2019). Establishing library learning commons in universities of India: A case study of BHU Library System. *Library Philosophy and Practice (e-journal)*, *2477.*

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