

LIBRARY AUTOMATION IN HIMACHAL PRADESH: A CASE STUDY OF NIT AND IIT LIBRARIES

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Abstract The study was undertaken to find out the present status of library automation and its impact on two academic institutes NIT and IIT libraries of Himachal Pradesh. The study focuses on housekeeping operations, advantages, barrier and satisfaction level of the users and library professionals towards the software. LibSys (commercial) and Koha (LMS) software are discussed in this study. Survey method was used for the research using questionnaire as the research tool. Majority of the respondents were satisfied with the automation of the library operations and responded the automation to be of advantage despite some barriers. This study gives the significant contribution towards the status of academic institutes in Himachal Pradesh.

Keywords: Library Automation, Housekeeping Operations, NIT and IIT, Library Software, Information and Communication Technology (ICT)

INTRODUCTION

With the advancement of technology and Information communication technology (ICT), now it plays a significant role in our daily life. It also gives a new platform to academic institutions; ICT applications are helpful to provide current information and informative services like database search, bibliographic service, referral service, CD-Rom and online database services to its users in accurate time. Proliferation of Information and Communication Technology infrastructure has thrust libraries to achieve the pinnacle of automation services (Anas et al., 2012). The ICT also encourages and creates environment for library staff to work together and facilitate with better services in the libraries. Library professionals have accepted well the challenge to emerge from traditional to digital libraries. Library automation is the solution to adopt the new technology with appropriate software. Webster's online dictionary defines automation as "the method or system of operating or controlling a process by highly automatic means, as by electronic devices, reducing human intervention to a minimum". Various library automation software has occupied the market such as: LibSys, Koha, NewGenLib, Librarians, Library solutions, Slim, Soul, Evergreen, and OpenBiblio etc. Libraries can adopt the software's according to the need and requirement of the libraries. With the help of library automation, we can facilitate and provide the digital environment to our users. The primary objectives of this study are:

- To know the present status of library automation in NIT and IIT libraries of Himachal Pradesh.
- To determine the barriers in implementing library -automation in different house-keeping areas of the library.
- To trace out the various difficulties faced by the library professionals and users in daily working due to automation.
- To know the impact of library automation in various library services.

CENTRAL LIBRARY NIT, HAMIRPUR

National Institute of Technology Hamirpur is centrally funded technical institute, established in 1986 as Regional Engineering College, as a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. The college provides Undergraduate, Postgraduate and Doctorate Education in Engineering, Sciences & Humanities. NIT library is divided in two separate buildings. One old building has Stack area and circulation facility. The collection of books is more than 90,000 available for circulation. The library was automated in the year 2004 and provides fully automated services to its users. Library is automated by LibSys software. All housekeeping operations like Acquisition, circulation, serial control and cataloguing are operated by trained library professionals. Opac is very helpful for users to search books.

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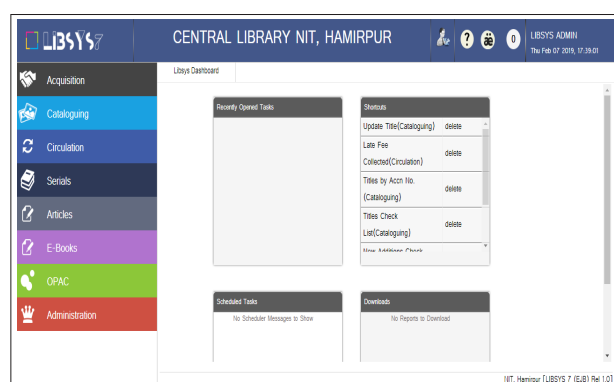


Fig. 1: LibSys Software in NIT Library

CENTRAL LIBRARY IIT, MANDI

Indian Institute of technology is also centrally funded technical institute situated in the bank of Beas River. The IIT Mandi Cell was set up at the IIT Roorkee on 18th March 2009, to steer the activities of the IIT Mandi. There are four schools in institute like: school of computing and electronics, engineering, basic science and school of humanities and social sciences. Approximately 1300 students are registered (B. Tech., M. Tech, MS and PhD) in the institution. IIT Mandi library is running in two campuses South & North. In south campus it is fully automated and in North campus library is working and named as satellite library where reading room facility is given to the users and the central library building work is under construction. Library has more than 19000 print books. The library is automated with Koha library management software and all housekeeping operation is operated by library professionals. OPAC is the one of the most user friendly service used by the users.

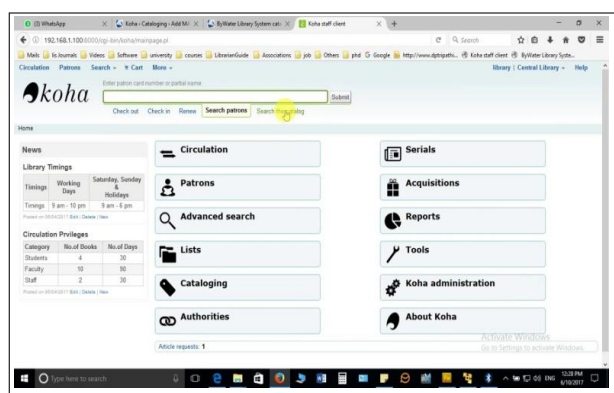


Fig. 2: Koha Software in IIT Library

LITERATURE REVIEW

Various studies, both national and international, have focused on the status and impact of library automation. A

brief literature review is conducted to support the objectives of this research.

Sarkar (2016) discussed various problems and challenges while adopting automation from traditional to computerized library at Kalyani University in West Bengal. The study shows that University of Kalyani adopted SOUL software under INFLIBNET programme. The automation with the software was completed after the three stages: the retrospective conversion project, the installation of SOUL software and data entry and the final stage was the bar-coding of books for circulation.

Panda and Singh (2016) conducted a survey on users perception on library automation. The result find out that the 60% students, 50% research scholars and 100% faculty members were aware about automation and users satisfaction among software there were 81% familiarize with Soul software, 6% with LibSys and 12.50% other library management software. There were also some problems faced: 60% users not satisfied with the power failure, 75% dissatisfied with the lack of computers, 30% were not satisfied with the untrained library staff and 48% demanded the users' orientation programme frequently to understand the new modern technology.

Nayak & Marathe (2015) conducted a survey of ten libraries of Kolhapur city considering their implementation with library automation. The findings show that the awareness of librarians for the user orientation was found 50% and the satisfaction level of librarians with library automation was 80%. Due to lack of proper training only 40% librarians were found to handle them. This number of trained library automation staff was not sufficient to provide the needful requirement of students from their satisfaction level.

Mutula (2012) carried out a study on Library automation in University of Botswana. The major findings of the study was that the success of library automation in Saharan Africa attributed to financial support from the management, job security of library staff, enhancement of skills of librarians, provided sufficient physical area for users, facilitate the staff and users with library automation and new services. The impact of the automation project included increased access to diversity of electronic resources, enhanced image of librarians and the introduction of new services.

Anas, Jafar & Parvez (2014) investigated the impact of automation in four selected management institutes of Aligarh. The finding shows that 75% libraries were partially automated. Only (ABIMS) Al-Barkaat Institute of Management Studies was fully automated. 70% librarians improved their library services with the automation. One of the finding also says that 85% of the library users felt that an automated system is better than the traditional system. The findings also showed that 75% libraries have fully automated acquisition section and only 50% have fully automated

technical and circulation section. This is because of the lack of skilled staff.

RESEARCH METHODOLOGY

After understanding the existing literature and the approaches used in the earlier studies, survey method was used as a tool for data collection for this study. A well-designed questionnaire was prepared as a research tool for this study. Questionnaire was distributed personally to the library professionals and users of different categories like: Under Graduate, Post Graduate, Research scholars and Faculty members. A total of 75 responses were collected from both NIT and IIT each. Further, staff views of both libraries also considered.

ANALYSIS AND INTERPRETATION OF DATA

Table 1 describes that Both NIT and IIT libraries are fully automated. Two different software LibSys and Koha are used for automation in NIT and IIT respectively. NIT was automated in the year 2004 & IIT was automated in the year 2011.

Table 1: Automation Status

Automation Status	NIT	IIT
Fully Automated	Yes	Yes
Year of Automation	2004	2011
Software Name	LibSys	Koha

Table 2 depicts that maximum users of NIT (84%) and IIT (80%) were satisfied up to some extent regarding library automation. Only (16%) respondents of NIT and (20%) respondents of IIT were highly satisfied. No one was dissatisfied in NIT and IIT about library automated services.

Table 2: Satisfaction Towards Automated Services (Users)

Satisfaction Level	NIT		IIT	
Highly Satisfied (I)	12	(16%)	15	(20%)
Satisfied up to some extent (II)	63	(84%)	60	(80%)
Dissatisfied (III)	0	(0%)	0	(0%)

Table 3: Advantages of Library Automation (Users)

Advantages	Highly Satisfied (I)		Satisfied up to Some Extent (II)		Dissatisfied (III)	
	NIT	IIT	NIT	IIT	NIT	IIT
Searching facility	65 (87%)	60 (80%)	10 (13%)	15 (20%)	0 (0%)	0 (0%)
Time saving	70 (93%)	68 (91%)	5 (7%)	7 (9%)	0 (0%)	0 (0%)
User alert services	67 (89%)	60 (80%)	8 (11%)	15 (20%)	0 (0%)	0 (0%)
Multi user accessibility	72 (96%)	73 (97%)	3 (4%)	2 (3%)	0 (0%)	0 (0%)
Updating with new services	69 (92%)	60 (80%)	6 (8%)	15 (20%)	0 (0%)	0 (0%)

Table 3 provides advantages of library automation from user perspective. 'Multiuser accessibility' was the highest ranking advantage in both NIT Library (72 out of 75) and IIT Library (73 out of 75), followed by Time saving. All users were satisfied with the advantages of the Library Automation. Library Automation enables users to perform multiple tasks of information needs in quick and efficient manner, which reflected in their responses in Table 3.

Table 4: Satisfaction Towards Automated Services (Library Professionals)

Satisfaction Level	NIT		IIT	
Highly satisfied (I)	9	(90%)	8	(100%)
Satisfied up to some extent (II)	1	(10%)	0	(0%)
Dissatisfied (III)	0	(0%)	0	(0%)

Table 4 also depicts that maximum users of NIT (90%) and IIT (100%) were highly satisfied regarding library automation. Only (10%) respondents of NIT were satisfied

up to some extent. No one was dissatisfied in NIT and IIT about library automated services.

Table 5: Advantages of Library Automation ((library professionals)

Advantages	Highly Satisfied (I)		Satisfied up to Some Extent (II)		Dissatisfied (III)	
	NIT	IIT	NIT	IIT	NIT	IIT
Reduced workload	8 (80%)	7 (87.5%)	2 (20%)	1 (12.5%)	0 (0%)	0 (0%)
Enhanced library operations quality	9 (90%)	8 (100%)	1 (10%)	0 (0%)	0 (0%)	0 (0%)
Time saving	10 (100%)	8 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ease in stock verification	6 (60%)	6 (75%)	4 (40%)	2 (25%)	0 (0%)	0 (0%)
Easy reporting	8 (80%)	7 (87.5%)	2 (20%)	1 (12.5%)	0 (0%)	0 (0%)
Improved computer skills	10 (100%)	8 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Implementing Library Automation not only improves the services provided by the library but enhances the work culture among professionals too. Table 5 provides advantages of library automation for the professionals. Majority of the respondents provided satisfactory response towards various

advantages. Time saving and Improved Computer Skills was one of the highest voted (100%) response in both NIT and IIT library followed by Enhanced library operations' quality and Easy reporting and Ease in Stock Verification.

Table 6: Problems Faced Towards Library Automation System (Users)

Problems	Frequently		Sometimes		Rarely	
	NIT	IIT	NIT	IIT	NIT	IIT
Lack of computers	16 (21%)	20 (27%)	31 (42%)	43 (57%)	28 (37%)	12 (16%)
Power cut	7 (9%)	5 (7%)	29 (39%)	62 (83%)	39 (52%)	8 (10%)
Connectivity problem	8 (11%)	12 (16%)	23 (31%)	15 (20%)	44 (58%)	48 (64%)
Lack of orientation programme	12 (16%)	18 (24%)	36 (48%)	4 (5%)	27 (36%)	53 (71%)
Lack of computer/technical expertise	5 (7%)	2 (2%)	30 (40%)	5 (7%)	40 (53%)	68 (91%)
Software is not user friendly	4 (5%)	23 (31%)	34 (46%)	4 (5%)	37 (49%)	48 (64%)

Table 6 indicates that maximum users of NIT (42%) and IIT (57%) felt some time the lack of availability of computers. Maximum users were satisfied with the power supply in NIT and IIT library. The respondents showed that there was very less problem regarding net connectivity. Both

NIT and IIT's library users were satisfied with orientation programme. Similarly, maximum users did not show the lack of availability of computer expertise. Maximum users found that the library software is users friendly at NIT and IIT's library.

Table 7: Problems Faced Due to Library Automation System (Library Staff)

Problems	Frequently		Sometimes		Rarely	
	NIT	IIT	NIT	IIT	NIT	IIT
Lack of computers	0 (0%)	0 (0%)	1 (10%)	2 (25%)	9 (90%)	6 (75%)
Power cut	1 (10%)	2 (25%)	2 (20%)	4 (50%)	7 (70%)	2 (25%)
Connectivity problem	2 (20%)	3 (16%)	2 (20%)	1 (20%)	6 (60%)	4 (64%)
Lack of orientation programme	0 (0%)	2 (25%)	2 (20%)	2 (25%)	8 (80%)	4 (50%)
Lack of computer/Technical expertise	1 (10%)	2 (25%)	2 (20%)	1 (13%)	7 (70%)	5 (63%)
Software is not user friendly	1 (10%)	1 (13%)	4 (40%)	2 (25%)	5 (50%)	5 (63%)
Backup problem	0 (0%)	0 (0%)	3 (30%)	2 (25%)	7 (70%)	6 (75%)
Software Maintenance Cost	1 (12%)	0 (0%)	2 (20%)	2 (25%)	7 (70%)	6 (75%)
Software hang-up/block	0 (0%)	0 (0%)	2 (20%)	3 (37%)	8 (80%)	5 (63%)

Table 7 highlights the issues faced by library staff in using the library automation software. The data collected represented that maximum library staff of NIT and IIT felt that they have enough computers for working. Maximum staff was satisfied with the internet connectivity and power supply in NIT and IIT library respectively. Both NIT and IIT's library staff were satisfied with orientation programme. Similarly, maximum library staff was also satisfied with the software and found its users friendly at NIT and IIT's library.

Table 8: Satisfaction Level with the Software Features

Satisfaction Level	NIT		IIT	
Excellent	13	(17%)	7	(9%)
Good	45	(60%)	60	(80%)
Average	16	(21%)	8	(11%)
Poor	1	(1%)	0	(0%)

Table 8 describes satisfaction with the software features that out of 75 respondents in NIT (60%) felt software good, (21%) average, and (17%) excellent & only (1%) felt poor. Same as in IIT (80%) felt good, (11%) average and (9%) respondents felt excellent features. The overall analysis shows that library users and professionals of both libraries are satisfied with library software features.

Table 9: Computers Skills of Library Professionals

Category	NIT	IIT
Operating skills of computers	10 (100%)	8 (100%)
Operating & Technical skills of computers & library software	7 (70%)	4 (50%)

All the library professionals of both libraries are having computer operating skills as shown in Table 9 whereas (70%) library staff of NIT and (50%) library staff of IIT also involved in technical aspects of library software like admin port, daily backup process, problem solving skills etc.

FINDINGS OF THE STUDY

It is of great interest to witness that most of the users as well as professionals are overall satisfied with the Library Automation services provided by IIT and NIT libraries in Himachal Pradesh. Problems faced by the users were somewhat to be considered seriously because these are the issues that should be addressed to increase the library usage. For example, the lack of availability of computers is the major issue faced by the users. Apart from this, lack of computer/technical expertise is addressed by the users and not by the professional staff. However, Library automation overall proved its advantages for both the categories, that of users (Table 3) as well as Library Professionals (Table

5). In addition to its other advantages, automation of library operations saves an umpteen amount of time for both users and professionals in daily operations. The status of Library Automation is satisfactory in the IIT and NIT libraries of Himachal Pradesh.

CONCLUSION

Effective implementation of recent technologies is increasing in every field, every discipline; and Libraries are no exception in the same. However, even after facing various challenges, library professionals don't lack enthusiasm to be ahead with times. To enhance the use of library resources, both print and online, libraries are involving in various technological implementations. Users now realize the importance of libraries even more. It is to ensure the satisfaction of users as well as the professionals that libraries should more proactively involve in improving and evolving better automation services to their users. To enhance the quality and magnitude of such services periodical training programs for the professionals are need of the hour. ICT is an ever-growing technical area and as users are becoming more technologically enabled, our professionals need to be up-to-dated with the advancing technology as well. Though this study highlights the Library Automation status of NIT and IIT libraries of Himachal Pradesh, future scope of this

study can be extended to involve even more institutes as well as regions of the country.

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