

INDIAN INSTITUTES OF MANAGEMENT (IIMs) LIBRARIES TOWARDS DIGITIZATION: A STUDY OF NORTH INDIA

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Rashmi Gangwar

Enrollment No. 641/18

SUPERVISOR

Prof. Shilpi Verma

Head

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE
SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY
BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY

(A CENTRAL UNIVERSITY)

VIDYA VIHAR, RAEBARELI ROAD, LUCKNOW-226 025
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ABSTRACT

INTRODUCTION

A hub where knowledge, information, services and sources are being collected in digital and print form and used for education, research and development, social welfare, economic reforms, the military is known as the library. Learning and knowledge sharing is the process followed by people since ancient times. And the libraries have played a vital role in preserving and transferring such information to humans in the present day. Information has dominated all other technologies with the information technology revolution in the present scenario of the information-intensive world.

Traditional print libraries have been turning into the digital library at a larger scale in various organizations, colleges & universities and social welfare institutions; the positive and innovative approach required by humans towards these newly built digital libraries to meet its objective of linking traditional and modern and help for future by preserving and conserving the heritage. Converting analog and print medium to digital can be defined as digitization in simple words. Users acquire their information through the internet, which is frequently filtered through for-profit platforms. It's as if a book doesn't exist if it isn't available online. Despite this, much of current knowledge is still housed in libraries on printed pages. In a conventional library, all stored material is analog. The conventional information in a conventional library consists of periodicals, books, manuscripts, photographs, audio-video tapes, etc. When this conventional information is recorded or fed in a computer, it is converted from analog to digital by breaking it down into binary digits. This data gets stored in the computer in a minimal space and can be searched, retrieved, exploited, and transmitted through the internet at any time and place. One of the most valuable features of digital data is its flexibility and a large number of users can simultaneously access digital information from a remote location. The digital files do not decay when copied; many identical copies can be made from these digital files.

OBJECTIVES OF THE STUDY

The prime objective of the study is to explore the digitization and digital librarianship initiatives by the librarians and information professionals in the Indian institutes of management libraries; further specifically, the objectives of the study are:

1. To assess the ICT skills of LIS professionals working in the IIMs libraries of north India.
2. To know the status of the digitization in the IIMs libraries of north India.
3. To know the preferences of DL software by the IIMs libraries of north India.
4. To explore the adoption status of subscription-based e-resources among the IIMs libraries of north India.
5. To identify the attitude of professionals towards digitization in the libraries.
6. To find out the problems that hinder the development of DL systems in IIMs libraries of north India.
7. To suggest improvement measures based on the inferences drawn from the study.

HYPOTHESES OF THE STUDY

1. IIMs libraries of north India enable to fulfill the requirement through non-print media.
2. IIMs libraries of north India have adequate digital information resources.
3. Most of the IIMs library professionals are proficient in IT skills.

SCOPE OF THE STUDY & LIMITATIONS

There are 20 IIMs in India in different states that offer undergraduate, postgraduate, doctoral and other executive education programs; for this study, all the six IIMs of North India have been selected. The scope of the study is limited to only six IIMs of North India.

S. No.	Name of Institutes
1.	Indian Institute of Management, Lucknow (1984)
2.	Indian Institute of Management, Rohtak (2010)
3.	Indian Institute of Management, Kashipur (2011)
4.	Indian Institute of Management, Amritsar (2015)
5.	Indian Institute of Management, Sirmour (2015)
6.	Indian Institute of Management, Jammu (2016)

NEED AND SIGNIFICANCE OF THE STUDY

The primary purpose of this study is to find the current status of libraries in the Indian Institute of Management of North India and to see the current status of digitization among those libraries. Other purposes include:

- To illustrate the government initiatives on digitization/DL development.
- To preserve and conserve the documents.
- To connect the users through digital information resources.

RESEARCH METHODOLOGY

The present study focuses on towards digitization and the use of digital information resources in the Libraries of Indian Institutes of Management of North India. The survey research method has been adopted for the collection of data. Questionnaires were used as a tool for data collection. Three questionnaires were prepared, one for librarians of the IIMs, one for library professionals of IIMs and the other for the users of IIMs libraries. After that, the questionnaire was distributed to each respective librarian of the 6 Indian Institutes of Management by personal visit; In the study, data has been collected using a structured questionnaire, observation, and interview method. Also, the indirect method of data collection is the usage of analysis of library websites of all the IIMs of North India. The sample is homogeneous as they belong to the same discipline. Stratified sampling has been used for selecting the institute among the population of the study. After collecting the data, suitable tables have been formulated for each aspect with the help of statistical analytical tools. The analysis involved various steps like categorizing data, coding data and tabulating and analyzing. Summary of questions has been carried out in the same order as the

questionnaire. Separate tables and graphs and textual presentations have been prepared for different aspects asked in a survey.

MAJOR FINDINGS

➤ Year of automation was started

All the libraries of the Indian Institutes of Management are automated. Indian Institute of Management Lucknow, being the oldest Indian Institute of Management in north India, started automation in 1985 post its establishment in 1984.

➤ Digitization program and policy

IIMJ and IIMS are planning to start a digitization program shortly, and the names of their programs are IIMJ (Digital archives of documents), IIML (Institutional Repository) and IIMS (Institutional Repository). IIMA and IIMK have no plans to start a digitization program. (Table 5.1.6)

➤ Reasons for implementation/adoption of library digitization

IIM Sirmaur accepted all the reasons for implementing digitization in their library. Speed and accuracy, improved services to users, providing online access to the search of information possible are the main reasons to adopt digitization in IIM Jammu & IIM Lucknow libraries. IIM Amritsar and IIM Kashipur have not adopted/implemented digitization in their libraries.

➤ Collection of digital information resources

The study showed that all the five IIMs 100% (IIMA, IIMJ, IIMK, IIML and IIMS) have e-books, e-journals and e-databases. CD/DVD databases and Technical reports are an essential part of the collection in IIMA, IIMJ and IIMS. Electronic conference proceedings are available only in IIMA, IIMJ and IIMK. At the same time, e-thesis/dissertation and e-repository are vital parts of the library collection except for IIMA, IIMK and IIMS. The table also shows that e-newsletters are available in only IIMA, IIMJ and IIML, while no IIMs have e-standard in their library.

➤ **Digital information services**

It was found from the study that 100% of IIMs (IIMA, IIMJ, IIMK, IIML and IIMS) libraries offered all the information services (OPAC, Web-OPAC, E-books, E-journals, Library WebPage, Indexing Databases Service, Abstracting Databases Service, Bibliographic Databases, E-Theses & Dissertations, Open Access journals and Institutional Publications) to their users.

➤ **Digital Reference Services**

The study shows that 100% of IIMs libraries (IIMA, IIMJ, IIMK, IIML and IIMS) adopt different Digital Reference Services (CAS, SDI, Alerts and Ask-a-Librarian) shown in the table to provide to their library users.

IIMA, IIMJ, IIMK and IIMS libraries provide bulletin board service and web application tools. Except for IIML and IIMS, other IIMs libraries to provide feedback services.

➤ **Internet connection**

The study shows that all the five IIMs (IIMA, IIMJ, IIMK, IIML and IIMS) have a Leased Line / Wi-Fi connection. IIMA has 250-350 MBPS speed provided by Quadrant Development & BSNL, and IIMK has 1 GBPS speed provided by NKN. Power GM is an internet connection provider to IIM Jammu.

➤ **Budget**

The study showed that only IIM Lucknow library has a total budget of Rs. Seven Crores (approx.) per annum. While IIMA, IIMJ, IIMK and IIMS are not provided any details of their library budget.

➤ **Preservation and Digitization**

The study showed IIM Jammu and IIM Lucknow libraries have a preservation policy for digitized documents.

➤ **Preservation policy for digitized documents**

IIM Jammu and IIM Lucknow library use institutional policy to preserve digitized documents. The study also presents that IIM Amritsar, IIM Kashipur, and IIM Sirmaur are not using any preservation policy for digitized documents.

➤ **Problem faced during the digitization of libraries**

The problems faced during the digitization of IIMs libraries. Security problems, untrained users and Continuous staff training are the main problems faced by IIM Jammu library during the digitization, and IIM Lucknow library has faced regular updates

➤ **Knowledge of following Cyber-threats**

IIM Amritsar, IIM Jammu, IIM Kashipur, and IIM Lucknow librarians know all the cyber threats listed in the table. IIM Sirmaur librarian knows only Hacking, Phishing, Man-in-the-middle (MitM), denial-of-service (DOS) and password attacks.

➤ **Analysis of IIMs library web page's design and management**

A vulnerabilities assessment of the website was also done to find out the weak links in the website, which may compromise the website data by hackers.

Web analyzers were able to retrieve all this information without the admin credential of the website. Such open retrievable information makes our websites an easy hacking toy for hackers. Once hackers know the version of CMS, hosting server, and IP address of the server, they can very well utilize vulnerability available in these web tools and compromise the website easily.

➤ **Problems Faced in the Effective use of ICT Applications**

The effective use of ICT applications by IIMs library professionals. It found that 4(67%) professionals agree that they are fearful of ICT applications, only (17%) professional disagrees, and (17%) is neutral about this.

Lack of infrastructure in library most (83%) professionals agree, and (17%) strongly agree with this. Most (71%) professionals agree, and only (29%) strongly agree with the organization's insufficient training/ orientation programs.

➤ **User's awareness about digital information resources available in the library**

The study showed awareness of digital information resources, indicating that most respondents, i.e., 275 (14.84%), are aware of the e-journals available in the library. 270 (14.57%) of the respondents were aware of the e-books, followed by 237 (12.89%) respondents aware of e-newsletters and 218 (11.76%) respondents are aware of institutional publication. A deficient percentage (less than 10%) of total respondents are aware of the subject-specific portal (9.76%), e- thesis/dissertation (8.63%), indexing database (8.04%), bibliographic database (7.12%), abstracting database (6.09%), and CD/DVD database (5.55%).

6.6 Suggestions

Suggestions are based on users' suggestions, personal observation, librarians' observation, data analysis and findings from the study of the Indian Institutes of Management libraries. The following suggestions are listed.

- The Libraries which just started the conversion of their resources to digital form. They should develop a committee for this exercise because of it's high cost, tedium, and time requirements. Significant resources must be allocated in terms of money, time, and manpower. Certain policies and strategies must be created to direct the digitization process. In order to ensure efficiency, it is important to implement the committee system. Each component of the digitization should be allocated to a committee.
- Devlope a single Library portal for all IIMs, It will help the libraries to share experiences about digitization efforts.

- A library consortia will help to save IIMs libraries buduget, time, and manpower. It will fecilitate proper coordination among resources and/or activities of all the member libraries.
- Creat a single portal for all the IIMs for purchase of online databases. It will help to save budget because all the IIMs has almost same subscription of e-databases.
- Whole digitization process in the IIMs libraries is getting unconstructively affected due to insufficient infrastructure, i.e- manpower and machines. Therefore, high- quality digital cameras, scanners, Computers, latest technologies availability of skilled and trained manpower are required for every IIMs library.
- System administrators of IIM’s website need to install latest programming lanuguage and database tools in their servers. Vulnerabilty assessment of IIM’s servers to be carried out on frequently basis to avoid any cyber threats.

Findings	Librarian/ Library professionals	Users	Suggestions
Problems during digitization.	<ul style="list-style-type: none">• Financial expenses• Costly maintenance• Security problem.• Regular updations of the software.	–	✓ "Men and Machine" are the backbone of any institution, so keeping the equipment serviceable and ensuring their handling by trained staff will be cost-effective as it will prolong the life of the equipment and avoid unexpected expenditure, So the Library staff must be familiar with all the latest emerging technologies and facilities available in the library.

Findings	Librarian/ Library professionals	Users	Suggestions
	<ul style="list-style-type: none"> • Untrained users. • Lack of staff 		<ul style="list-style-type: none"> ✓ The library website & database should be handled by trained professional staff to avoid cyber threats, attacks, and data loss. ✓ Library software's to be updated frequently to avoid hindrance in library services. ✓ Library orientation programs are to be conducted regularly to make users aware of library resources and services. ✓ During the study, most of the IIMs have one librarian and one to three professionals, so the Manning level of Libraries may be revised to cater for more professionals and Library staff for smooth library functioning.
<p>Frequency of visiting the library by users.</p>	<p>–</p>	<ul style="list-style-type: none"> ❖ 33.55% visit daily ❖ 23.25% twice a week ❖ 10.29% once a month ❖ 12.62% rarely ❖ 2.65% never 	<ul style="list-style-type: none"> ✓ A good practice may be adhered to by library staff to notify library users about digital services available in the library by mail, providing brochures and pasting notifications on library notice boards. But, again, it's beneficial for

Findings	Librarian/ Library professionals	Users	Suggestions
Information resources prefer for study/research.		<ul style="list-style-type: none"> • Print Resources (20%) • Digital Resources (20%). • Both print and Digital Resources (60%). 	<p>those users who do not prefer to visit the library regularly.</p> <p>✓ The study finds that library users use print and electronic resources for research, but users prefer Both types of resources more than digital and print</p>
Awareness of digital information resources by users of IIMs libraries	-	<ul style="list-style-type: none"> • The present study shows that 15% of users are aware of e-journals and e-books, 13% e-newsletters, 12% institutional publications, less than 10% are aware of Abstracting databases, bibliographic 	<p>✓ Library content/resources are the most valuable things of any library. IIMs libraries have a rich collection of e-resources. If users are not aware of these resources, they cannot use resources quickly; after that, resources may not be used timely.</p>

Findings	Librarian/ Library professionals	Users	Suggestions
		databases, and CD/DVD databases.	
Frequency of uses digital information resources by users.	-	<ul style="list-style-type: none"> Study shows that 24% of users never use all the resources, 23% of users rarely use all the resources, 22% sometimes use all the resources, 17% users frequently use digital resources, and only 11.66% of users most frequently use digital information resources. 	<ul style="list-style-type: none"> ✓ It clearly shows that users who never use e-resources are higher than those who use it frequently. Therefore, library staff can implement activities to make users aware of e-material available in the library through various user orientation programs and notify users about newly inducted journals, the monthly or bimonthly library newsletter, and other freshly added services in the library.
Poor internet connectivity		<ul style="list-style-type: none"> Most of the users suggest that they have suffering slow internet facility. 	<ul style="list-style-type: none"> ✓ Library can facilitate high speed optical fibre internet connection to their users from leading ISP available in market.

Table : Suggestions

CONCLUSION

In the present study, the researcher promoted digitization considering the ever-changing form of library and services that are changing rapidly. The important dimensions of digitization pertain to accessing and distributing data and documents through digital information in IIM libraries. Therefore, the present work will benefit the professional staff of library science and will act as a motivational guide for the librarians of IIM libraries in India. The analysis includes details of IIM's library professionals and users on various aspects, based on responses communicated by librarians and statistically analyzed users. In the last part of the section, the problems faced regularly and the suggestions given by the library users are compiled and analyzed. The hurdles faced by the librarians of IIMs in library digitization are also highlighted. And the suggestions given by the researcher are also listed.