

**Rethinking the Indian Digital Divide: Present State of Digitisation in
Indian Management Libraries**

By

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ABSTRACT

In this paper efforts have been made to analysis the present status of digitisation of Indian Management Libraries through a survey carried out in 700 management libraries in India. The issues such as library automation, development of digital library, use of bar code and smart card technology have also been discussed. The issues responsible for widening of digital divide have been identified.

KEYWORD: Digital divide; Digitisation; Management Libraries

0. INTRODUCTION

The 1990s have seen a tremendous growth and development in terms of management education in India. A management library has to function as an academic library on one hand and as a special library on the other. Advances in computer, communication and networking technologies, have eclipsed the physical and geographical boundaries and posed major challenges to the professionals in the information sector. Business Libraries and Information Centers (BLICs) are witnessing new paradigm shifts. These get reflected mainly by way of: (i) transition of information sources and systems from paper to electronic media; (ii) complexity in information needs of highly demanding clientele; and (iii) increase in the cost and quantity of information. Professionals in BLICs have to accept these challenges by playing a proactive role not only in their (routine) acquisition, processing and information dissemination activities, but also in the actual learning process of their clientele. They have to learn to scan, filter, interpret, analyse, repackage, and deliver information from a variety of sources in ways that are meaningful to their users.

In this paper efforts have been made to analysis the present status of digitisation of Indian Management Libraries through a survey carried out in 700 management libraries in India. The methodologies adopted in this survey are both questionnaire-based survey as well as the case study approach. The issues such as library automation, development of digital library, use of bar code and smart card technology have also been discussed. The issues responsible for widening of digital divide have been identified. On the basis of the above study carried out in management libraries in India, various issues of concern have emerged. The basic objective of this research work is the investigation of present state of digitization in the management libraries in India and on the basis of this investigation; the problem areas have been identified. Here the digital divide refers to the gap between various management libraries with regard to access to the Internet and use of Internet and also in terms of state of digitization.

1. DIGITAL DIVIDE AND INDIA

The digital divide refers to the gap between individuals, households, businesses and geographic areas with regard to access to the Internet and use of Internet. It deals with have's and 'have not'. More than 80% of the world population has never heard a telephone dial tone. Even if they were provided all infrastructural facilities, most of the world's poor would still be excluded from the Internet revolution because of illiteracy and lack of computer skills.

India, one of the world's poorest countries and simultaneously a global IT power, is struggling to reduce the digital gap. Some of the major cities may be at par with the developed countries but rural areas particularly from Bihar, Uttar Pradesh and Orissa are even far below than some of the least developed countries. As per UNDP human development report 2001, Bangalore is a more developed city as compared to many cities in Europe and US in terms of technological innovations.

The narrowing down of digital gap in rural India is a major challenge. In this area, India is emerging as a laboratory for testing out new technologies and business models to reduce the digital gap between rural and urban population. The simputer developed by the Indian Institute of Science, Bangalore is one of the examples of this kind of efforts. Other organisation, Centre for Development of Telematics (C-DOT) is also engaged in the development of telecommunication technologies for rural masses. The corporate sector too is discovering that narrowing down this digital divide could lead to new business opportunities for them. The HP labs India is developing products to suits such needs. The Wireless in Local Loop (WLL) technology developed by IIT, Chennai has helped in providing Internet Connectivity to 250 community Kiosks that offer these services to over 7,00,000 people in rural India. The efforts are on to cope up with the problems such as language and illiteracy.

Status of Information Technological Advancements in India

Technology	1990	1999	2000
Fixed line and mobile phones (per 1000 people)	6	28	36
Cost of 3 minute local call (\$)	.04	.01	.01
Personal computers (per 1000 people)	0.3	3.3	4.5
Internet users (in Thousands)	1	2800	5000

Source: the little data book 2002, world bank, 2002

During the year 2000-01 both government and private sector companies have provided about 7.8 million new telephone connections. In addition to that about 5.5 mobile connections have also been given. Under the village public telephone (vpts) about 18,799 villages have been provided public telephone connections up to december 2001. About 75 isps have been operating to provide internet connections. The introduction of the communication convergence bill 2001 is another milestone in the area of telecommunications. The project for laying down of fibre optics cable is in progress.

Internet Users Worldwide (in Thousands)

	1990	1999	2000
World	70	241,959	366,470
East asia and pacific	0	25,919	51,943
Europe and central asia	2	8,987	14,648
Latin america and caribbean	0	10,455	19,086
Middle east and north africa	0	938	1,864
South asia	0	3,034	5,413
Sub-saharan africa	0	2,365	3,695S

Source : The Little Data Book 2002, World Bank, 2002

2. Libraries and digital divide

As per various internet usage data available worldwide, after personal internet connection, the libraries have been found to be the most convenient place for making use of internet. It is because libraries are available at your workplace, near to your residence and place of education. Therefore, it is an automatic choice for the users. The libraries can be considered as most effective means for narrowing down the digital divide. This is applicable to all kinds of libraries including management libraries. This paper is about the state of digitisation in the libraries of management institution in India.

3. GENESIS OF MANAGEMENT EDUCATION

Management education, almost unknown in the nineteenth century, has become a dynamic force for change in many universities, in the workplace, and in the societies of both industrialized and developing countries. Management education had its beginning in the us in 1881 with the donation of one hundred thousand dollars by joseph wharton for the establishment of america's first school of finance and commerce in the university of pennsylvania. The universities of chicago and california followed in 1898 and the harvard business school was created in 1908. By 1915, there were some 40-business schools in us universities, and for the next decade, a "business school craze" swept the nation, increasing the number to 183 by 1925.

4. SCOPE AND OBJECTIVE OF THE STUDY

The 1990s have seen a tremendous growth and development in terms of management education in india. A management library has to function as an academic library on one hand

Advances in computer, communication and networking technologies, have eclipsed the physical and geographical boundaries and posed major challenges to the professionals in the information sector. Business libraries and information centers (blics) are witnessing new paradigm shifts. These get reflected mainly by way of: (i) transition of information sources and systems from paper to electronic media; (ii) complexity in information needs of highly demanding clientele; and (iii) increase in the cost and quantity of information. Professionals in blics have to accept these challenges by playing a proactive role not only in their (routine) acquisition, processing and information dissemination activities, but also in the actual learning process of their clientele. They have to learn to scan, filter, interpret, analyse, repackage, and deliver information from a variety of sources in ways that are meaningful to their users.

Under this study the following areas have been studied

- I. Present state of library automation and use of other information technologies
- Ii. Present state of library networking and future needs
- Iii. State of digitization
- Iv. Need for change

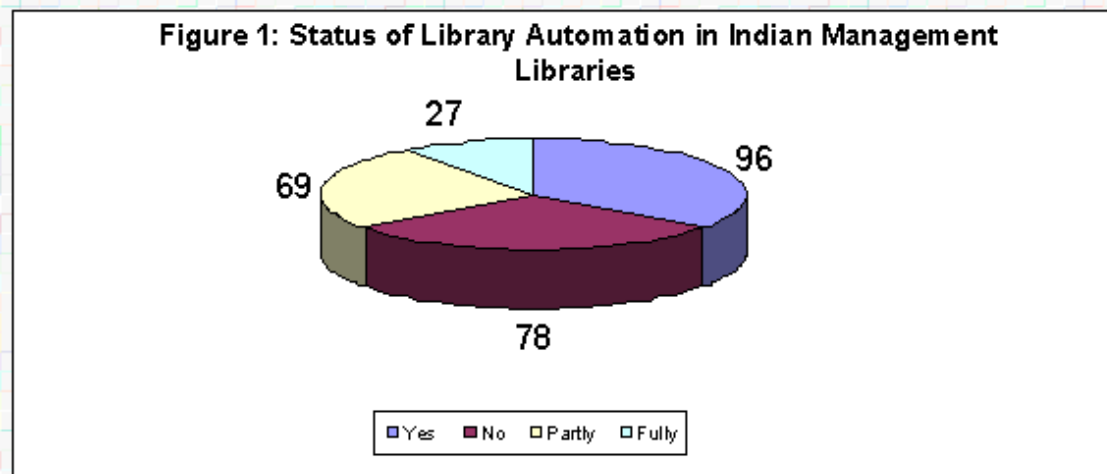
5. METHODOLOGY

The questionnaire-based survey as well as the case study approach has been adopted in this study. As the concept of re-engineering is new to library and information field, therefore it is proposed to study its applications in other fields through literature search also. Present status of management libraries in India will be reviewed through literature search. For the study of management libraries in Delhi, Faridabad, Ghaziabad, Gurgaon, and Noida, it is proposed to collect the data through the surveys based on questionnaires, interview case studies, and organizational case studies. In-depth literature search on topics related to the research work will be carried out in the libraries in Delhi and around. Internet and CD-Rom databases and other data sources will be used for the literature search. Besides, collection of data through questionnaire based case studies and structured interviews, as slated above, will also be followed.

6. DATA ANALYSIS OF DIFFERENT MANAGEMENT LIBRARIES

Table 1: Status of Library Automation in Indian Management Libraries

Total Response	Status		
	Started No	Partly	Fully
Yes			
174	96	78	69
			27



Findings

- I. 55% libraries have started computerization.
- II. 45% have still not started computerization work.
- III. 40% libraries are partly computerized.
- IV. 16% libraries are fully computerized.

Table 2: Various Softwares Used in the Library Automation

Total Response	Name of the software									
	LibSys	WINSIS/ CDS-ISIS	Troodon	TLMS	Techlib	Librarian	Sanjay	Granthalaya	Others	Self Made
96	23	24	1	1	1	1	3	Nil	1	25
										NIRMAL 1
										OASIS 1
										Excel 1
										MISS Plus 1
										Library Information

System	1
Oracle-VBC++	1
LIBMAN	1
LIBSOFT	2
ALICE	1
SOUL	2
AUTOLIB	1

MINI-ISIS 1

FINDINGS

- I. 24% libraries are using LibSys software
- II. 25% libraries have been computerized with the help of CDS-ISIS/ WINSIS.
- III. 26% libraries are using self-made library automation software
- IV. 25% other libraries are using various other software available in India.

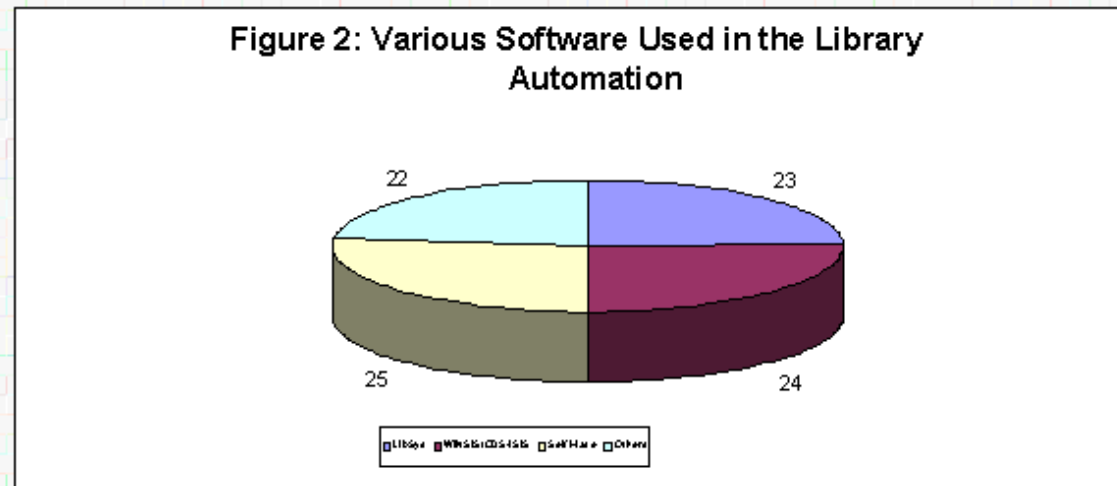


Table 3: Use of Bar Code Technology in Indian Management Libraries

Total Response	Yes	No	Not Given
174	32	102	40

FINDINGS

- I. Only 18% libraries have started use of Bar Code Technology in their operation.
- II. 59% libraries are yet to start the use of Bar Code technology.
- III. 23% have not responded to this question.

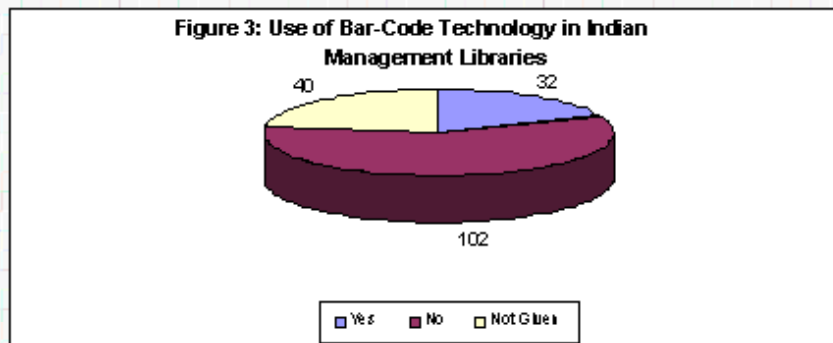


Table 4: Internet Availability

Total Response Available in Library	Available in Computer Lab	Not Available	Not Given
174	52	62	31
			29

FINDINGS

- I. 30% libraries are having Internet facilities within the library.
- II. 36% libraries are using Internet facilities at their computer lab.
- III. 18% do not have Internet facilities at all.
- IV. 16% have not responded.

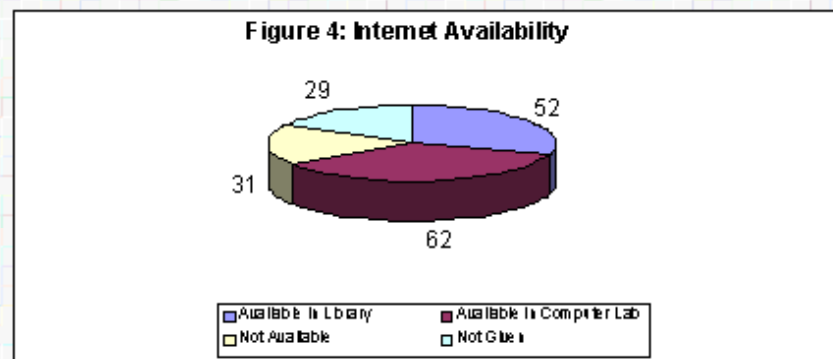


Table 5: DELNET & Other Library Network Memberships

DELNET Membership	Any Other	Membership	No	Not Given
18	RECNET	2	122	19
	NIC	1		
	ADINET	1		
	ERNET	1		
	INFLIBNET	10		

FINDINGS

- I. Only 10% libraries are members of DELNET.
- II. 9% are having membership of other library networks.
- III. 70% libraries do not have any network membership.
- IV. 11% have not replied.

Table 6: Availability of International Full Text Database in Indian Management Libraries

EBSCO	ABI INFO	Any Other	Not Available	Not Given
6	3	EI Manufacturing 1	135	30
		Ecnolit 1		
		SSCI Business & Industry 1		
		Business & Management - 1		

Findings

- I. Only 5% libraries are having either EBSCO or ABI Inform full-text database.

II. 78% libraries do not subscribe to any full text database

III. 17% have not responded

Table 7: Availability of Indian Full Text Database in Indian Management Libraries

VANS Electronic Library	Any other	Not Available	Not Given
9	NA	108	57

Findings

I. 5% are having VANS Electronic Library.

II. 33% have not responded.

III. 62% do not have any full-text database.

Table 8: Company Information Databases available in Indian Management Libraries

VANSCOM	Prowess	Capitaliane Ole	Any Other
8	10	4	IBIP - 1

Findings

I. 5% are having VANSCOM

II. 6% are having Prowess

III. 2% having Capitaliane Ole

Table 9 : Digital Library Initiatives

Initiatives

Total Response	Started	Not Started	No Answer
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174	12	115	47
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Findings

- I. 7% libraries have started some digital library initiatives.
- II. 66% say not yet started.
- III. 27% have not replied.

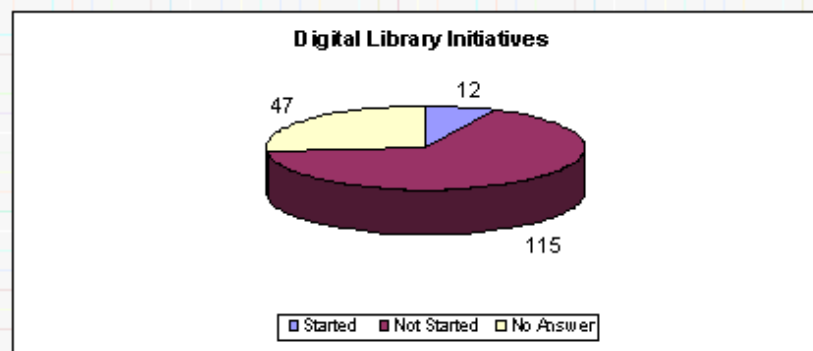


Table 10: Institute LAN Connectivity

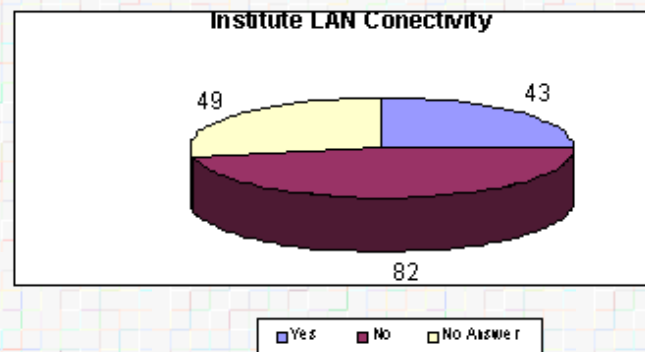
Total Response	Yes	No	No Answer
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174	43	82	49
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Findings

- I. 25% libraries have been connected to the institute LAN to facilitate library services to the users at their workplace.
- II. 47% are yet to install this facility.

III. 28% have not replied to this question.



7. RECOMMENDATIONS

On the basis of the above study carried out in management libraries in India, various issues of concern have emerged. The basic objective of this research work is the investigation of present state of the management libraries and on the basis of this investigation, the problem areas have to be identified. And, at the end, solutions to these problem areas can be found out by applying re-engineering management.

Under this study, 500 questionnaires were sent to the various management libraries in India. Out of 500, 174 libraries have responded. On the basis of the responses of these 174 libraries the following recommendations have been made.

8. COLLECTION DEVELOPMENT

We are in information age. The Internet revolution has given us more options and choices. A huge volume of information is available in electronic form but on the basis of study of available resources and culture, Indian management students and faculty are still more dependent on books and journals. Although, use of electronic information is increasing day-by-day, the studies have given a very grim picture of the present state of collection of various management libraries.

9. ELECTRONIC DATABASES

With Internet revolution, electronic databases have become part of information resources. As per Table 6, only 5% libraries are subscribing any international full text database. And 17% have not responded to this query, which leaves a huge percentage of 78 with no electronic database support for their users. In Table 7, 5% libraries are having Indian full text databases. As per Table 8, about 13% libraries are subscribing some company information based electronic databases. It all says that a bulk of about 75% libraries is not having electronic resources with them. Now a question arises, how the students of these libraries are going to survive in today's competitive world?

On the basis of above findings, I strongly recommend that AICTE should rethink over its guidelines provided in relation to setting up of a management institution. It is also recommended that new guidelines in relation to the availability of electronic resources should be included.

10. STATUS OF LIBRARY AUTOMATION

Nowadays, use of computers in all walks of life is a common activity. In 1980s, computerisation of libraries was a topic of debate. In 1990s Internet dominated all the discussions. New millennium has initiated debate on digital libraries or virtual libraries. The library automation is the first step in the development of a digital library. Now we are coming across various examples of successful digital library projects. We feel that we are in the digital world, but on the study of the findings of this research work we found that the reality is far from it. On the basis of Table 9, it has been found that 45% libraries have not yet started automation, out of 55% who have started library automation, only 16% libraries have been fully computerised. With these statistics, can we think of entering in a digital world? In Indian libraries the digital gap is widening day-by-day, now it is time to reduce this gap.

11. SOFTWARE USED IN LIBRARY AUTOMATION

As per Table 2, it has been found that 24% libraries are using LIBSYS software, another 25% are using CDS-ISIS software for the automation of their libraries, and yet other 26% libraries are using self-made software packages for the library automation. As per the survey, at least other 20 readymade library software are available in the market, but their presence is limited (1-2 libraries). Market share of these softwares is about 25%. This is a cause of concern as no standardisation is possible in such an environment. The profession should address and tackle this problem very seriously to avoid the future chaos as in the digitisation process, standards are going to play a crucial role.

As per table 10, only 43 libraries are connected with institute LAN, it means other 131 library' resources are not accessible to users outside library. Libraries should take initiative in this direction to provide access to library resources in faculty cabins and student hostels.

12. USE OF BARCODE TECHNOLOGY

As per Table 3, only 18% libraries are using barcode technology in their operations. The libraries should be educated about benefits of this technology in making the system faster and accurate.

13. AVAILABILITY OF INTERNET FACILITIES

Nowadays, Internet has reached in the households but study says that management institutions are still ignorant of benefits of this greatest invention of the last millennium. As per Table 4, 18% management institutions still do not have the Internet facilities for their users. Only 30% libraries are having Internet facilities within the library and other 36% are using Internet facilities available in the Computer Lab. 16% libraries have not responded.

14. MEMBERSHIP OF LIBRARY NETWORKS

The resource sharing is the best way to cope with the problems such as budget constraints and increasing cost of publications. The library networks are the greatest medium to fulfill the objectives of resource sharing. At present, various library networks such as DELNET and INFLIBNET are serving the libraries with various programs. As per the survey, as given in Table 5, only 10% libraries are members of DELNET, 9% are having membership of other library networks and 11% have not responded. Other than this, 70% libraries do not have any network membership. Time has come for the Indian management libraries to join library networks for future development and fulfillment of the user information needs.

15. DIGITAL LIBRARY INITIATIVES

Only 12 libraries out of 174, say that they have started working on development of a digital library. In today's fast changing environment, the digital resources are becoming essential to support the user needs, therefore, Indian management libraries must work hard to reduce the digital gap.

16. CONCLUSIONS:

India is country where there are many reasons behind this digital divide. Starting from some old problems of various languages and other cultural diversities to IT revolution, there is a list of problems to be solved. What we need is a national information policy to face such a critical issue. We need some revolution like our green revolution to come out of this very big problem. Collaborative efforts from Government, professional agencies and professional are the need of the hour. The three major reasons responsible for widening of this digital divide are lack of infrastructural support; lack of commitment from the both organisation and librarians and lack of necessary legislation for the development of the libraries from government as well various controlling authorities on libraries. It is imperative for a country to solve problems related to hunger, poverty, health and illiteracy but at the same times these problems cannot be solved without having a good information support.

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BRIEF BIOGRAPHY OF AUTHORS



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