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Automation and problems in their implementation: An investigation of special libraries in Indore, India

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The study was carried out to know the status of library automation and problems in their implementation in special libraries of Indore city, Madhya Pradesh. It discusses automation, its need, and application in special libraries. The study explained the various problems faced by authorities and the staff during the process of automation. The tool adopted to conduct the study is a well structured questionnaire. The staff hesitancy and lack of attitude towards automation and unsatisfactory library software problems are the major hindrances to speedy automation. It finally highlights the key suggestions for better implementation of library automation and to overcome the hurdles faced during pre and post automation.

Key words: Automation, library automation, special libraries, problems and prospects in library automation.

INTRODUCTION

Modern society is characterized by an increasing need for specialized institutions in various fields of activity for the performance of their day-to-day functions as well as research and consultancy work. These institutions require speedy access to qualitative published information. Exposure, the methods of storage and dissemination of information are changing fast, so no library can store all published information and can provide efficient services with its old manual operations. (Alabi GA 1984). Therefore, "Automation" is important and necessary to handle the vast amount of information and for providing faster, accurate, precise, efficient, and effective information and services as well.

This is the era of computerization, but still tradition manual working system exists in Indian libraries especially in undeveloped area. In the series of development of library world is acclimatized to computer environment in daily routine as well as information storage and retrieval. Automation to a greater extent can reduce pressure of library workload. It also shelters from work stress and fatigue. It not only offers efficient services and opens a new era in bibliographical control but provides access to required database in the country and abroad as well.

A computer is capable enough in reducing the storage place. It is helpful in finding information in less time which in not possible through manual working system. This information is capable of being recalled with ease and at most speed, as and when required. (Chandhok, 1994).

The study has been conducted in Indore city situated on the Malwa Plateau at 553 m above sea level, on the banks of two small rivulets - the Saraswati and the Khan. They unite at the centre of the city where a small 18th century temple of Sangamnath or Indreshwar exists. Indore the largest city in Madhya Pradesh state in central India, acquired its name due to their deity. Indore spread over 3898 sq. km. with a population of 18, 35,915 and literacy rate of 64.21% is the commercial capital of Madhya Pradesh, India as well.

It is the education hub of the country. Top educational/research institutes of the nation are established here in different streams for example: Indian Institute of Management (5th IIM), Raja Ramanna Centre for Advanced Technology (CAT), Indian Institute of Technology, National Research Center for Soyabean, Wheat Research Station, Military Headquarter of War (MHOW), Devi Ahilya Vishwavidyalaya (University Established in 1964), Shri Govindram Saxeria College of Science and Technology (SGSITS) (Autonomous Institute, Established in 1952), Mahatma Gandhi Memorial (MGM) Medical College (One of the oldest

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College in Country 1884), Daily college (Residential School Established in 1885), Veterinary College, Agriculture College etc. http://www.mp.nic.in.

Need for automation

Library automation, involved in creation of database and information retrieval, computerized library network and use of telecommunication for information needs a careful handling and systematical planning. It reduces the work stress of library staff and helps in getting the information immediately. Thus justification for automation must be logical and convincing. Library automation may be justified by giving certain reasons. Automation can; (Rajput et al 2006)

1. Increase the processing efficiency than a manual system.
2. Realize financial saving or continuing cost in certain cases where cost saving has been realized through automation.
3. Improve library services.
4. Make library administration and management efficient.
5. Avoid duplication of the work.
6. Facilitate resource sharing and increase technical processing efficiency over a manual system.

Application of computer in special library

The automation can be applied profitably in various processes of institute or special libraries. The following are the aspects of library working which can be computerized or automated.

Library housekeeping operations

1. Acquisition
2. Classification
3. Cataloguing
4. Stock-taking
5. Serial control
6. Circulation

Information services

1. OPAC
2. Internet Services
3. E-mail Services

Library networking

1. Inter Library Networking (WAN)
2. Intra Library Networking (LAN)

Office automation

1. Word processing and letter drafting
2. Accounting

Objectives of the study

1. To analyze the various obstacles confronted by the authorities and staff during the process of library automation.
2. To identify special libraries of Indore working through manual system and automated one.
3. To appreciate the advantages of automation with respect to economy in expenditure increased use of library resources and services.
4. To interpret the importance and necessity of automation to handle the vast amount of information and to provide prompt, authentic, efficient and effective services.
5. To suggest measures to overcome the problems faced during automation in special libraries and information centers.

METHODOLOGY

The methodology used for the present study is questionnaire-based survey. The contacts of different institutions were collected through formal and informal sources. A short well structured questionnaire was sent to each of these institutions to ascertain status of library computerization. Depending on the information collected, the computerized libraries were short- listed for further study. A detailed questionnaire was sent to each short- listed library to study the status of automation and understand the problems faced by them in automating their routine functions and services. In the investigation, 25 special libraries were identified in Indore, out of which 20 libraries have faced problems during various stages of automation

Analysis and tabulation of data

In order to ascertain the problems which the librarians encountered in introducing automation, respondents were asked to respond to the assorted problems of both pre and post automation according to the significance of the problem under four parameters, namely; low, average, high, and very high.

Problems in pre-automation

Figure 1 depicts the number of special libraries under survey, which encountered pre-automation problems that is problems at the time of initiating computerization in the library. Figure 1 shows that 18 (90%) libraries encountered pre-automation problems and only 2 (10%) libraries did not encounter any problem at this stage.

Significance of pre-automation problems

Table 1 reflects the significance of the problems faced by 18 (90%) out of 20 libraries that encountered pre-automation problems. It is further observed that majority of 14 (77.7%) and 13 (72.2%) of the libraries have faced low problems such as lack of space an paucity of funds for initiating computerization during pre-automation.
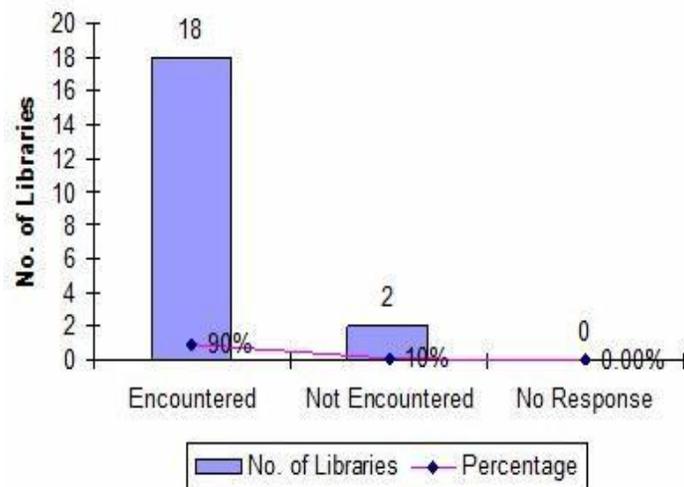
Figure 1. Pre-automation problems.

Pre-automation problems	No. of libraries with problems			
	Low (%)	Average (%)	High (%)	Very High (%)
Paucity of funds	13 (72.2)	4 (22.2)	1 (5.5)	0 (0.0)
Lack of administrative support	12 (66.6)	3 (16.6)	2 (11.1)	1 (5.5)
Lack of trained staff	7 (38.8)	4 (22.2)	4 (22.2)	3 (16.6)
Lack of fund for recurring expenditure	11 (61.1)	4 (22.2)	2 (11.1)	1 (5.5)
Hesitancy in learning computer	6 (33.3)	5 (27.7)	3 (16.6)	4 (22.2)
Lack of space	14 (77.7)	4 (22.2)	0 (0.0)	0 (0.0)

automation. Similarly 4 (22.2%) and 3 (16.6%) of the libraries faced very high problems of hesitancy in learning computer and lack of trained staff.

Problems in post-automation

Figure 2 reveals the number of special libraries under survey, which encountered post-automation problems that is problems encountered after initiating computerization in the library. Figure 2 shows that 14 (70%) libraries encountered post automation problems while 4 (20%) did not. Out of 20 libraries under survey, 2 (5%) libraries did not respond to the query.

Significance of post-automation problems

Table 2 reflects the significance of problems faced by 14 (70%) out of 20 libraries that encountered post-automation problems. It shows lack of attitude of authority for staff training is low problems but serious technical problems are very high in post automation stage.

Prospects of automation

The respondents were asked to respond to comment on the prospects of automation according to the significance of the prospects under four parameters namely; low, average, high and very high.

The collected data has been tabulated accordingly. Figure 3 shows the number of libraries where benefits of automation were observed. Figure 3, depicts that 17 (85%) libraries observed benefits of automation in their libraries out of 20 libraries, 3 (15%) libraries did not respond to the query.

Significance of prospects

Table 3 shows the significance of different prospects observed by 17 (85%) libraries.

Suggestions

Almost all the libraries have faced pre-automation and post automation problems. Lack of trained staff, hesitancy in learning computer and technical problems were faced in the initial stage of automation. Some suggested few possibilities to overcome these problems (Thapa and Sahoo, 2004) are as follows:

1. User education should be provided to create awareness about the library collection and its services. User training to make him independently handle the computerized system should be provided.
2. Information technology based library and information science education at bachelor of library and information science and master of library and information science level is a must. The major problem faced by the libraries was serious technical problem, related to
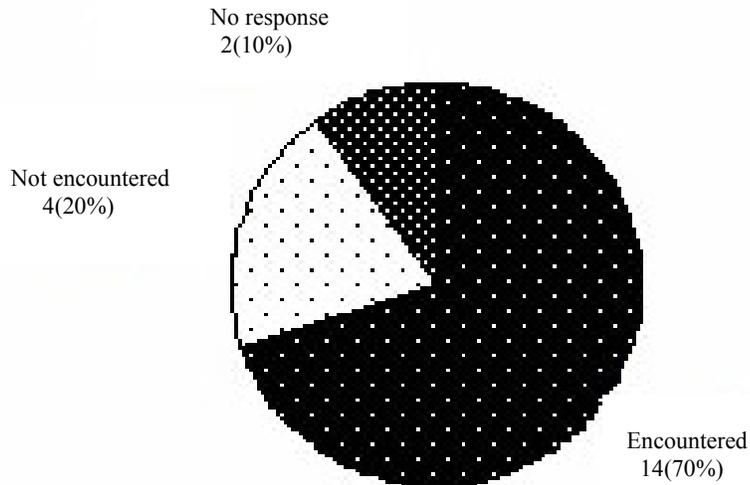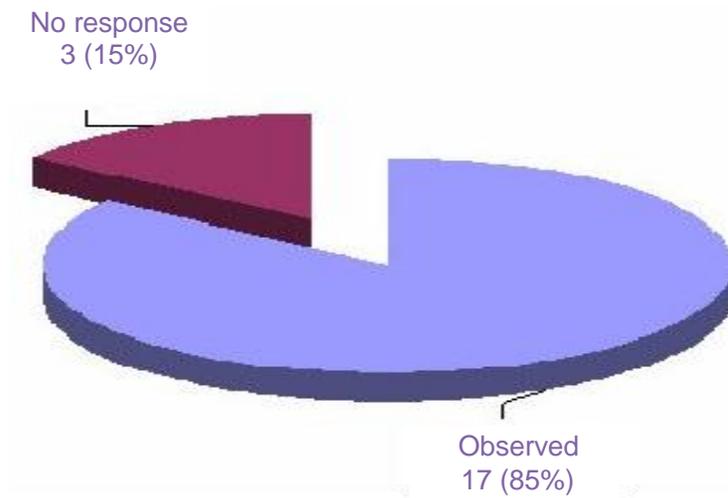
Figure 2. Post-automation problems.

Figure 3. Prospects of automation.

Table 2. Significance of post-automation problems.

Post-automation problems	No. of libraries with problems			
	Low (%)	Average (%)	High (%)	Very High (%)
Paucity of funds for improvement	7 (50)	4 (28.5)	3 (21.4)	0 (0.0)
Lack of attitude of authority for staff training	11 (78.5)	3 (21.4)	0 (0.0)	0 (0.0)
Computerization below expectation of users and organization	10 (71.4)	2 (14.2)	1 (7.14)	1 (7.14)
Serious technical problems encountered	2 (14.2)	1 (7.14)	7 (50)	4 (28.5)
Paucity of funds for staff training	10 (71.4)	2 (14.2)	1 (7.14)	1 (7.14)
Software is not user friendly	10 (71.4)	4 (28.5)	0 (0.0)	0 (0.0)
Lack of awareness among users	8 (57.1)	3 (21.4)	2 (14.2)	1 (7.14)
Lack of standardization and incompatibility of hardware	7 (50.0)	2 (14.2)	5 (35.7)	0 (0.0)

Table 3. Significance of prospects.

Prospects of automation	No. of libraries with problems			
	Low (%)	Average (%)	High (%)	Very High (%)
High use of collection	0 (0.0)	3 (17.6)	5 (29.4)	9 (52.9)
Extending of library services	3 (17.6)	7 (41.1)	4 (23.5)	3 (17.6)
Sharing resources through network	1 (5.8)	3 (17.6)	6 (35.2)	7 (41.1)
Prestigious for library	5 (29.4)	6 (35.2)	4 (23.5)	2 (11.7)
Economical expenditure	4 (23.5)	2 (11.7)	6 (35.2)	5 (29.4)
High level of user satisfaction	1 (5.8)	5 (29.4)	5 (29.4)	6 (35.2)
Space saver	5 (29.4)	2 (11.7)	7 (41.1)	3 (17.6)

related to hardware/software encountered during installation.

3. The in-house training programmes conducted on a part time basis would help the staff members to practice and assimilate more. Simultaneously their day-to-day work would also not suffer.

4. In-service training at regular intervals should be provided to keep the staff abreast with the latest technology.

5. Vacant posts need to be filled up and new recruitments as per requirement must take place.

6. The computer-training programme is to be so organized that there should be no time lag between staff training and assignment of computer work to trained staff. By this way, trained staff will get a regular practice of the computer knowledge obtained during the training programme.

7. Other than the library staff, at least on technically trained staff (that is B. E. or M. C. A.) should be appointed as information Scientist/Computer In-charge, to look after automation work and trouble shoot day-to-day problems of computerization. Also, at least one computer operator should be provided for data entry purpose.

Conclusion

Automation has increased the use of collection through improved information retrieval and has ultimately led to increased user satisfaction. It has helped in extending library services, enhanced the prestige of the library, and has helped in resource sharing through networking as well. Special libraries of Indore have embraced the new information technology more profoundly than other fields and most of them are currently using electronic products and services. The impact of automation on library is quite obvious as it has created new types of work, prompted redefinition of certain functions, influenced interpersonal relations, and transformed traditional organizational structure into new institutional entities.

REFERENCES

Alabi GA (1984). Computerization of library services in Nigerian university libraries: The state of the art. Ann. Lib. Sci. Doc., 31: 97-103.

Chandhok S (1994). Computer applications at IGNOU Library. Lib. Sci. Slant Doc. Info. Stud., 31: 66-86.

http://www.mp.nic.in

Rajput PS, Jain SK (2006). Status of automation in special library and information centers of gwalior: A survey. NCIMDiL. pp. 55-64.

Thapa N, Sahoo KC (2004). Problems and prospects of automation: A survey of special libraries in Jabalpur. IASLIC Bull., 49: 171-181.