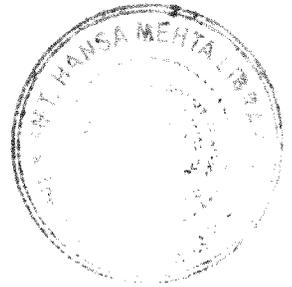


# *Chapter VII*

## *Conclusions and Suggestions*



## CHAPTER - VII

# CONCLUSIONS AND SUGGESTIONS

This chapter presents conclusions derived from the data collected and analysed in the previous chapter. On the basis of conclusions, some suggestions are drawn to solve the post automation problems in libraries. Finally, scope for further research in this area is identified.

### 1. CONCLUSIONS

Any new system could be implemented well only when there is a well thought out plan behind it. Same applies to library automation too. The present study on post automation problems in libraries reveals that the post automation problems could be minimized if proper measures are taken at the time of planning the automation system in the library. To run the library automation systems smoothly, first of all the automation project should be divided into three stages, i.e. planning, selecting/deciding the hardware & software and finally implementation.

The present study on the post automation problems has been carried out by keeping certain objectives in the mind. The findings and the analysis of the data gathered during the study are presented in the previous chapter. The conclusions that are drawn from the analysis and findings of the study are enumerated below.

#### (i) *FINANCIAL PROBLEMS*

For the sustainable development and growth of the automated library systems, it is quite essential to generate regular flow of fund. With regard to financial problems a few conclusions drawn from the study are stated below.

- There is a lack of funds for the maintenance of automation systems in most of the libraries studied.
- There is no separate allocation of budget for post automation problems of the automated library systems.
- No provision of Annual Maintenance Contract (AMC) to some consultant for solving the hardware or technical problems that exists in the libraries.

- Non availability of budget for unforeseen crisis is yet another problem.
- Management is still hesitant towards spending money for the development of library system in most of the libraries.
- Librarians are finding difficulty in getting approval for the implementation of new technology in library.
- New self financed libraries are facing less financial constraints than the established libraries.
- The libraries are not releasing funds for staff training which in turn proves to be an obstacle in the system upgradation.

(ii) *PERSONNEL ADMINISTRATION PROBLEMS*

Any automation system to run smoothly and efficiently requires full support of the people working on it. The attitude of management authority towards the library also plays very important role in its right development. Following are the conclusions drawn from the study with regard to personnel administration problems of the automated library system.

- The post of a permanent librarian is vacant in many libraries of the present study.
- Non availability of professionally skilled library staff is yet another major problem.
- Non cooperation of the other library staff in managing the automation problem has emerged as another problem faced by university libraries.
- Hesitancy among the aging permanent staff in learning to use computers is also seen in most of the university libraries.
- Young library professionals are comparatively more tech savvy and enthusiastic to learn the new technology.
- Lukewarm attitude of management towards releasing fund for staff training is yet another problem faced by the libraries.
- Lack of recruitment of Information Technology expert in the library.
- The library committees which have included computer personnel as member have more smoothly dealt with the problems of automation systems.

(iii) *TECHNICAL AND TECHNOLOGICAL PROBLEMS*

The technology is changing very rapidly. However, the automation system in the library is not being updated as frequently as technology. The major technical and technological problems are being faced due to this change. Following are some of the conclusions drawn from the study with regard to technical and technological problems in automated library systems.

- Lack of sound technical knowledge among the library professionals emerged as a major constraint in handling technical post automation problems.
- Shortage of technical expertise in library.
- Constraints of proper networking in libraries.
- Lack of standardized formats in the library management software.
- Lack of latest information technology infrastructure in library.
- Once the hardware is supplied, management is not ready to support higher configured hardware later on.

(iv) *MANAGERIAL PROBLEMS*

Managing and maintaining the automation system in the library has been a big challenge for the librarians. This work of library automation is not as easily done as said. It involves its own problems and constraints. Stated below are some of the conclusions drawn from the present study with regard to managerial problems of automated library systems.

- Almost all the libraries are not completely automated. They are managing both the systems simultaneously, manual as well as automated system. The workload has increased due to this double work.
- Operating the library management software efficiently is a very difficult task. This is due to the poor after sales service of the software vendor. Almost all the librarians complained about it. There are maximum complaints for the SOUL software vendor.

- Librarians are finding it very difficult to convince the management/authority for everything such as
  - approval for the recruitment of professionally skilled personnel
  - fund for the automation maintenance
  - extra space to build e-workstation
  - for implementing new technologies in their library
  
- The new management structure with the involvement of computer professionals in library has helped in running the automation system successfully.

Some significant conclusions have merged on the basis of the findings of the study. This study conducted by the investigator on post automation problems of libraries reveals some of the hidden truth of the automation system. When a library gets automated, it should not assume that now it has to worry about nothing. The effort has been made by the investigator to understand the situation after a library gets automated. This is being done not to criticize the automation system but to improve upon the preparedness of the librarians. Simply recording on the paper that the library has implemented the automated system is not enough. In fact, the study reveals that a lot has to be done to see that the automation system keeps running smoothly. However, the actual scenario is not very pleasing. Almost all the libraries are only partially automated. The reasons being given varies, like due to financial constraints, non co-operation from staff, from management, insufficient technical staff, lack of technological infrastructure or non-adaptability to changing environment. Even those libraries that are fully automated are facing various problems that need to be addressed. It had been said very rightly by one of the respondents that the library is automated only for the namesake.

After presenting the conclusions, some suggestions have been presented here that have been drawn from the present study as solutions to solve the post automation problems in library. These are presented in the next section.

## 2. SUGGESTIONS

Automation of libraries is still in their formative stages in Gujarat. The present study is an attempt to understand the problems that are being faced by the library professionals in managing the automated library system. The study reveals that corrective measures should be taken into consideration in advance to avoid post automation problems. After conducting the study some of the suggestions are being drawn which may help the library professionals to avoid the post automation problems or to overcome them. Moreover, this would also help in running the library automation systems successfully and smoothly.

### (i) *FINANCIAL FACTORS*

The financial resources of the library should correspond to its specific aims. Special goals usually need extra funding. This should be illustrated in the budget of the library and also the way the resources are finally going to be used should be pointed specifically. Adequate fund should be allotted for the maintenance and for the technological developments of automated libraries. A positive attitude of the management is needed for releasing the fund for the same.

The most important financial aspect is that there should be separate allocation of fund to handle as well as to maintain the post automation issues of library.

- Financial resources and lack of sufficient fund are the most critical obstacles in the application of information technology.
- Allocation of fund for the annual maintenance cost for the automated system should be made.
- Adequate fund should be allocated for regular procurement of higher configured hardware and related peripherals
- Similarly fund should be allocated for purchasing the higher version of software

(ii) *PERSONNEL ADMINISTRATION FACTORS*

The staff of the library is the major factor on which implementing the new system in the library depends. While changing the conventional environment into the advanced technical work environment, handling the staff becomes the most important aspect. First of all, the number of the available staff in the library should correspond to the goals of the library. As considerable extra work needs appropriate extra staff, so availability of skilled staff in the library is quite significant. Then, in order to meet the growing expectations of users from libraries, library professionals must upgrade their technological skills consistently. This can be achieved by attending different training programmes or workshops on latest technical as well as human approach skills. This attitude can be adopted to motivate, to inspire and to prepare them for the change that is required for the 21<sup>st</sup> century work environment. There should be new framework of qualifications of LIS professionals which will redefine the library & information science profession for the new millennium.

Furthermore, the staff is the most important asset of any library service. If a majority of the staff in some services is enthusiastic, or at least understanding, it shows that obtaining the support of a large group is not impossible. There is a need for consultation and an ongoing dialogue with library staff. The libraries will remain dumb and mute if the library professionals are not being trained continuously with emerging trends in technology. The training increases the skill of staff members. It leads to standardization of work and staff will be able to make better economical use of material and equipment in the library. This way they will more efficiently serve their users.

Following are some of the points to deal with the aspects related to personnel administration of the automated system. This may help in improving the functions of automated library system.

- Professional development of library staff is a must.
- Necessary training should be imparted for handling the software in the most efficient way. Training is also needed on the updated version of software.

- Library professionals must upgrade their skills in order to meet the growing expectations of users from their libraries.
- Positive attitude of staff towards automation system should be developed.
- Time period between initial training and actual practice should be planned out.
- Good communication relationship should be maintained between the librarians and the computer professionals.
- Training course for the library staff for developing enquiry handling skills.
- Standalone training is not enough rather training is required for developing new organizational way of thinking and working.
- The LIS professionals have to sharpen their skills and develop their professional competencies to survive in this era.
- Staff willingness is required to embrace the project and change routines.
- The computer – training programme should be so organised that there is no time lag between the training of staff and the assignment of computer work to the trained staff. This will enable the acquired knowledge of the concerned staff to be properly utilized in time.

There is a strong need of human infrastructure due to the advancement of cyber infrastructure. The responsibility is on librarians to demonstrate that they still have a key role to play in the provision of information. Good co-operation amongst library personnel could prove an important factor for smooth running of automated library system.

*(iii) TECHNICAL AND TECHNOLOGICAL FACTORS*

All the equipments and similar technical infrastructure that support the library functions should be appropriate and well functioning. This does include telecommunications and computer networks, adequate control of the electrical power by the use of uninterruptible power supplies and so on. Appropriate technical support should be arranged for regular and unexpected conditions, for instance, virus protection, back-ups related issues, restoration of systems within an acceptable time, and so on. Even though wide ranges of technology/

products are available, it is necessary for librarians to keep a watch on the developments and to choose appropriate technology depending on the needs of their library. Along with technology, changes in the organizational structure also reflect a need for a technical person at the upper management level. Apart from this, listed below are some of the elements which may be useful in dealing with technical and technological factors of the automated library system.

- Controlling power failures to avoid interruption
- Availability of UPS system
- Recruitment of technically competent staff
- Software should be compatible to hardware
- Proper ICT infrastructure should be procured
- Should have adequate Internet nodes and bandwidth
- Powerful LAN to exploit the benefits of digital information environment.
- Better Internet speed
- Enhance the electronic communication and work in a web enabled environment
- Network breakdown should be prevented by taking proper measures
- State-of-the-art in IT to be used in information processing and retrieval activities
- Technical knowledge of computer may be made an essential part of professional qualification.

Last but not the least, it is very important for librarians to interact with computer professionals as the library automation at all levels needs good co-ordination among both these professionals

(iv) *MANAGERIAL OR ADMINISTRATIVE FACTORS*

The library, as any organisation, must have its own goals and aims that must be clearly stated and known to everyone who is involved with it. It is recommended that each library should formulate a proper written down policy on library automation. This policy should be reviewed and updated at least every two years. A well prepared library automation plan

should be made in advance. Besides this listed below are few more suggestions with regard to the managerial factors of the automated library system.

- Objectives should be clearly defined at the beginning of the project.
- The project structure should be prepared carefully at the outset.
- Extensive prior studies should be carried out before embarking upon automation, to build up an efficient computer based library services
- Carefully considered, contractual commitments with a vendor should be done
- Flexibility and adaptability of the system is necessary
- Measures should be taken for the improvement of library services
- Sufficient time for implementation should be planned
- Exchange of experiences amongst the librarians before purchasing or developing the software
- Developing a creative leadership skill is the need of the day for the librarians.

Last but not the least is that there should be communication and cooperation among the various institutions engaged in library automation to understand and to solve the post automation problems being faced by each one of them. For this, one can form a user group of library professionals at the local level to discuss the problems and then to find out its solutions.

Apart from the above mentioned factors, there are few other areas which need attention. They have been discussed briefly in the following passage.

(v) *LIBRARY AUTOMATION MANAGEMENT SOFTWARE*

As mentioned earlier, selection of library information management software is very important criteria. It should be thus selected as per the type and size of the library. Following are few of the other important factors to be considered during the selection process.

- Installation process of the LIMS should be easy
- Software should be economical
- It should possess the features of user friendliness

- Manual with the software should be understandable
- Provision of regular updating of software should be verified
- Software should be supportive with limited operating system
- Availability of local agent of software should be checked
- Retrospective conversion software should be possible

Along with the selection of software, keeping the above factors in mind the attitude and behaviour of software developers/vendors play a very important role in running the automated systems efficiently.

(vi) *SOFTWARE VENDOR/PROVIDER*

It is very important to find out whether the software developers/ vendors are providing satisfactory after sales service or not. One of the major findings of the present study reveals that the poor after sales service of the software provider is one of the major causes of an inefficient functioning of the automated system. The majority of the sample librarians of the study have the complaints that there are no replies to the emails or phone calls from the concerned people of the software vendors/developers. This really creates frustration at the time of crisis, when they need to contact them urgently, as all their efforts go waste due to the non-cooperation of the software vendor. Therefore evaluation of vendor's standing and market value of the software should be done in the beginning. Listed below are few other factors to be kept in mind while negotiating with the software vendors/developers.

- Full fledged training from the vendor at the time of implementation is a must
- Commitment of after sales service of software supplier
- Joint effort of library professionals and software development experts to meet the user expectations effectively
- Vendor should support to customize the software according to the needs of the library

In a nutshell, it can be said that for the successful implementation of the computerization of library services, advice from the experts who have already computerized the library services and activities should be sought. Librarians should visit computerised libraries to gather practical information about computerization of library operations and services. There is also a need for continuous monitoring of automation activities for improvement of the situation and for meeting the future needs. In fact strong professional commitment is needed towards the implementation and maintenance of automation systems in the library.

### **3. AREAS FOR FURTHER RESEARCH**

The study brings to light that there is an ample scope for further research in this area. These are stated beneath.

- ✓ The present study is restricted to the libraries of Gujarat state; it can be further studied for the libraries of other states in the country.
- ✓ Further, a comparative study of the post automation problems of libraries of two or more states could be carried out.
- ✓ The study of post automation problems of libraries of other than academic libraries for eg. Special libraries, Public libraries can be carried out.
- ✓ A comparative study of post automation problems in academic and special libraries can be carried out

Further it can be expanded to other related areas of electronic resources. It is being observed, the development of the Internet is revolutionising the way in which the academic libraries access information. This revolution means the new roles and responsibilities have to be found for librarians. The study also draws attention towards issues which could be researched like –

- ✓ the use of e – resources
- ✓ user awareness about e – resources
- ✓ cataloguing and indexing of e-resources
- ✓ collection development of e – resources
- ✓ storage and preservation of e-resources

- ✓ application of preservation methods and technologies necessary to ensure that digital information of continuing value remains accessible and usable
- ✓ cost and benefit of e-resources
- ✓ copyright and IPR issues of e-resources
- ✓ security of electronic data
- ✓ digitization : technologies and culture
- ✓ updating of library automation technology

Studies in the above mentioned areas will be useful in identifying the post automation problems in different libraries; also the issues related to application of other information technologies in libraries.