CHAPTER -7

FINDINGS, SUGGESTIONS AND CONCLUSIONS

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7.0 Introduction

The success of library depends upon the effective utilisation and management of information technology (IT) applications in libraries. Libraries use IT to increase the efficiency, productivity and effectiveness of their operations and services. Libraries in India are increasingly using the integrated library software for their various library housekeeping operations and services. The present study has attempted to study the level of use of integrated library software in selected university libraries in India. It provides a broad overview of the physical infrastructure and resources of libraries in general and use of integrated library software in housekeeping operations, services and administration in particular.

This chapter provides a brief summary of findings, suggestions, future research areas and conclusions. An attempt has been made to highlight the overall strengths and weaknesses of the integrated systems' functions, features and services. Inferences were drawn from the analysis of the data. Subsequently, the following findings have been evolved.

7.1 Summary of the Findings

1. It is happy to note that 95.65% of trained Professionals are available in libraries, followed by Semi-Professional (60.86%) and Non-Professional (30.43%). It could be because of the INFLIBNET's Information Technology Applications training programme, that a large number of professionals have been trained.

2. The nature and efficiency of successful implementation of automation activities and information services provided by library depends upon
the computer facilities it has. Most of the libraries surveyed have adequate hardware (87.84%) and networking (86.08%) facilities.

3. Web Server is a system capable of providing Internet access to Web-based resources and services to the clienteles. Web is playing a major role in accessing information resources. The concept of Web Server is yet to take momentum in the majority of libraries (77.39%).

4. The Barcode facility will help in smoothening the transaction process in Circulation section. Only half of the libraries (52.17%) have barcode reader.

5. Backup devices will help to make a second copy of an important data file in case the original is lost, damaged, or destroyed. Most of the libraries (66.96%) preferred using CD-RW for taking backup, since it is a cost effective and easy to use.

6. An electronic alarm system installed at the entrance and exit of a library facilitates detection of the unauthorised removal of library materials. The majority of the libraries (95.65%) do not have the electronic security system in the libraries. The reason could be that presently there is no standardized system available, high cost of the system and libraries could be waiting for implementing the emerging technology i.e. RFID.

7. Budgetary support for Information Technology Applications is very important in a library set-up as most of the libraries are using IT in their routine activity. At present, the budgetary support for Information Technology Applications in the library is moderate.
8. There are about 11 library automation software used by different university libraries. The majority of libraries (62.61%) are using the SOUL software followed by the LibSys software which is used in 20.87% libraries. It is delighting to note that the SOUL software which has been indigenously developed by INFLIBNET is widely used since it is quite economical and user-friendly.

9. Library automation software available in different types of architectures, viz., Client server, Web based and other types such as flat files system, web version, etc. Client Server based software is used in the majority of (93.91%) libraries.

10. The majority of libraries (80.87%) used CDS/ISIS or WINISIS a UNESCO based freely circulated software prior to the present library automation software they are using. INFLIBNET promoted this software to create a database in the absence of ILS.

11. Digital Libraries denote the use of computers to store library materials appearing in electronic (digital) format. The majority of libraries (80.00%) responded that their present software do not support digital library activity.

12. Libraries started automating their library functions in the order of Catalog module, followed by OPAC, Circulations, Acquisitions and Serials Control modules. Due to non-availability of Integrated Library Software (ILS), automation of other functions were delayed for a long time.
13. Libraries have the highest satisfactory level for housekeeping operations such as Catalog module, followed by Circulations and OPAC. Libraries are not very much satisfied with the functions and features in Acquisition and Serials Control modules. Special functions and features and Maintenance and Support Features are rated at the lowest satisfactory level. The available Integrated Library Software in India are short in fulfilling the needs of the modern library.

14. It is found that 37.39% of Libraries stated that all modules should be improved.

15. Accessioning process, followed by Order process, Receiving process rated as highly used features and functions in Integrated LS.

16. The least used functions and features are Communication through Email to the vendors, Print of Invoice Register and Routing and Bindery preparation. The survey findings indicate that libraries have started using minimal basic functions in Acquisitions. Acquisition Module is modestly used in University Libraries in India.

17. Features and functions like Receiving of Titles process, Title holdings details, Renewal Process - continuation of Titles and Subscription process are highly used in Acquisitions.

18. Print of Spine Label, Communication through Email to the vendors, Print of Invoice Register and Routing and Bindery preparation are the least used features in Serials Control Module.

19. The process of creating entries for a catalog by using library management software in libraries usually includes bibliographic
description, subject analysis, etc. Most of the libraries (80.34%) are using the CCF bibliographic format for database creation. The majority of libraries, i.e., 86.96% are using AACR2 Catalog Code for cataloging library resources, and 76.52% are using DDC for assigning the classification notation.

20. A lot of bibliographic records are available in vernacular languages in university libraries in India. Although a good number of library collection is available in vernacular languages in universities in India. Yet greater part of the libraries (64.35%) are not using the multilingual feature of the software. The reason could be that multilingual feature may not be fully functional in ILS.

21. LCSH Subject Headings are used by 26.09% libraries, followed by 15.65% libraries are using the Sears List, 7.83% libraries are using the other subject headings. Only 4.35% libraries are using the LCSH Names. It is a matter of pleasure to note that considerable number of libraries are following international standards for assigning subject headings.

22. The majority of libraries are using the software for cataloging of Books (97.39%), followed by Serials Back Volumes (77.39%), Current Serials (72.17%) and Theses/Dissertations (71.30%). It indicates that most of the libraries are satisfied with functional capabilities of Catalog module. Catalog Module is matured enough, and it is highly used in University Libraries.

23. With the conversion of paper records to machine-readable format, the use of online catalogs, catalog cards have fallen into disuse. But due to
various reasons many libraries still print catalog cards. A good number of libraries (59.13%) are using the print of catalog card feature.

24. Card shelflists are being phased out by libraries that have converted their catalogs in to machine-readable records. The majority of libraries (80.00%) are not using print of shelflist feature in the software.

25. Spine label is a small typed or printed label affixed to the lower spine of a book or other bibliographic item at the time when it is processed. Most of the libraries (66.96%) are not using print of spine label feature.

26. Libraries use barcodes to identify items for circulation and inventory and to link the borrower's library card to the appropriate patron record in automated circulation systems. The majority of libraries (62.61%) responded that they are not using the print of barcode labels feature.

27. ISO 2709 Data Exchange format is extensively used in library domain to exchange bibliographic data. The majority of libraries (89.57%) are using this feature.

28. Z39.50 is a type of software that makes it possible to search multiple disparate library catalogs and other resources in one search, and bring back one set of results. The majority of libraries (96.52%) stated that they were not using the Z39.50 feature, since most of the available ILS in libraries does not have this feature.
29. Highly used functions and features in Circulation module are Registration of users, followed by Issue/Return of items, Renewal of Items and Renewal of Memberships.

30. The least used functions and features are Sending Notices by Email to the users, Issue/Return of Loose Issues of Serials and Issue/Return of Back Volumes of Serials. Survey findings show that the functions and features in circulations are not used consistently. Circulations module is reasonably used in Indian University Libraries.

31. Online Public Access Catalogue, popularly known as OPAC is an interface to search library catalogue online. It provides search facilities by using simple author, title and subject approaches. The majority of libraries (94.78%) responded that users’ opinion on the ease of usage of OPAC is good.

32. The OPAC can be accessed via terminal which is directly connected to the server of the ILS or through the Web-OPAC facility, by which the library catalogue can be browsed over the internet by graphical browsers. The majority of libraries (74.78%) are using OPAC without web browser.

33. As libraries embrace the digital environment, their most crucial role is not that of providing e-resources, but of establishing services that facilitate access to the information available. About half of the (50.43%) libraries stated that they did not have a feature of access to online databases through OPAC.
34. Bibliographical Enquiry Service is the highly used service followed by Listings Service/ Notification of new materials and Web access by using the ILS.

35. Services such as Interlibrary Loan Service, followed by Document Delivery Service and Routing of Journal are least used. Survey results show that scores do not carry consistently highly rated performance value. So it indicates that most of the libraries are yet to implement the Service module to the fullest extent by using the ILS.

36. Backup can be taken by using operating system commands, or through a library management software. The majority of libraries (87.83%) stated that only whole database they take backup.

37. Libraries are dealing with huge and very important data, and this necessitates that libraries need to take backup at regular intervals. More than half of the libraries (57.39%) take backup on a daily basis.

38. Report generation facility in ILS provides library managers with the tools for organizing, evaluating and efficiently running the libraries. In order to provide past, present and prediction information, a report generator would be very handy to the libraries. A good number of libraries (61.74%) are not using the Graphical and Statistical Reports feature.

39. The present day library management software have provision of authorisation by modulewise. The user can be given authorisation to use only that particular module such as catalog or circulation module. This provision will allow the administrator to manage the unauthorised
use. Greater part of the libraries (88.70%) have stated that they are using modulewise authorization access.

40. Stock taking is the process of physically counting the entire range of items in the library and recording the results in a systematic manner with a view to reconciling the physical stocks with accounts. Most of the libraries (73.04%) responded that they were not using software for stock verification.

41. Library management software support and AMC is a major issue for the libraries. Nearly half of the libraries (44.35%) stated that AMC support for the library management software is Poor followed by 23.9% libraries stated as average.

42. Supporting the software is a very important component after the sales. Many a time the small bugs or few issues in software may create some problems. Getting an adequate support from the vendor is a major issue. Due to developments in technology now users can communicate in various modes viz. Email, Vendors Website, Telephone, etc. The majority of libraries (73.91%) stated that Email was the primary mode of communication, followed by telephone (26.96%) for getting assistance from the vendors.

7.1.1 Problems and Suggestions from Librarians

While implementing the automation programme of library activities and services, various types of problems are encountered. Librarians have rightly highlighted the important problems and suggested some solutions for
implementation of automation and networking of university libraries in India, which are worthwhile to mention here:

1. Non-availability of good integrated library software at affordable price.

2. Lack of technical support for implementation of integrated library software.

3. Lack of proper guidelines and planning for computerisation of library activities.

4. Non-availability of full-fledged standard multilingual library software which is causing hindrance in developing database of Indian language collection.

5. The available ILS in university libraries lacks the feature of Z39.50 interface which could have helped in downloading records from other libraries.

6. University libraries are not able to use the RFID interface because the available ILS lacks this feature.

7. Regularization of the post of Information Scientist or appointment of full time systems administrator to support the information technology applications in libraries.

8. Union Catalog developed at INFLIBNET should be made functional to download bibliographic records of books database.
7.2 Suggestions for Successful Implementation of Library Automation in India

Some of the problems which come in the way of effective implementation of automation in university libraries may be common in nature across the country. The library professionals should take the modernization of university libraries in India as a challenge. The views and comments offered by the Librarians and the outcome of the research have enabled the investigator to offer some feasible suggestions for achieving the optimal utilization of library resources and services. They are given as follows;

1. For the successful implementation of the computerization of library services, advice from the experts or consultants who have already computerized the library services and activities should be sought.

2. In the light of the present study, it is essential for libraries before undertaking implementation of automation of library, the respective library should draw an action plan and flow chart for successful implementation.

3. Libraries should conduct periodic studies to evaluate the implementation of information technology applications which will guide them to identify the gaps, and further necessary actions can be taken to fill the gaps.

4. Provision should be made by agencies such as INFLIBNET to take appropriate measures for funding the library programmes in modernisation.
5. Survey results reveal that vernacular language collection database has not yet been created. Agencies such as INFLIBNET should bring out the Unicode based multilingual software at the earliest to tackle the Indian language collection.

6. University libraries should adopt uniform standards for all library automation activities to facilitate easy resource sharing.

7. Although SOUL is being used in the majority of libraries. Survey reveals that effective use of SOUL software is not much encouraging. INFLIBNET Centre should rectify the software bugs and problems in SOUL software. This will enhance the effective use of this software in libraries.

8. Intensive compulsory training to senior library and information professionals as well as other library staff in the use of IT in day-to-day work should be provided by the university or arranged by the INFLIBNET periodically.

9. The changing information environment demands the library professionals to acquire or update new skills regularly. The in-house training programmes are most effective in training the staff in skills pertaining to operations of integrated library software, digital resources like databases, e-journals, etc.

10. RFID can be used in library circulation operations, theft detection systems and in inventory management. This technology helps libraries to reduce valuable time of the staff spent in transaction and inventory management.
11. It is found out from the survey that Libraries are still in primary stage of ILS implementation. Libraries should complete the automation of all functions soon, and start providing next generation services by using ILS.

12. In the light of the present study, the customer support service does not look comprehensive enough, but this difficulty may be overcome by forming user group and discussion forum for the mutual benefits of each library.

13. It is observed from the survey result that the majority of libraries do not have websites. But now website plays a major role in information dissemination especially with the emergence of electronic resources. So libraries should maintain a library website of its own to enhance the access to electronic resources.

14. The survey reveals that although the majority of the libraries have ILS yet, they do not use the ILS to the fullest extent of its potential for want of technical support. It is necessary to designate a full-time Systems Manager or Information Scientist to look after information technology activities in Library, so that it helps library to use ILS effectively.

15. Evaluation of automated systems should be carried out at regular intervals in order to enable the identification of defects that set in the different areas of the system. Such evaluation process will definitely lead to the development of better automated library systems.
7.3 Suggestions for Further Research

The present study is restricted to the study of effective use of integrated library software in university libraries in India funded by UGC under INFLIBNET programme. An investigation in other related areas will, no doubt, help in providing a comprehensive portrait of the integrated library software in university libraries. Therefore, the following topics for further research are suggested.

1. The present study was limited to UGC-INFLIBNET funded university libraries in India. A similar survey of university libraries in India, for the growing number of private university libraries and other research libraries (deemed and institutions of national importance) throughout the country can be undertaken.


3. Further study can be made on Integrated Library Software usage in university libraries by using LibQUAL+ and SERVQUAL models.

4. This study method revealed one aspect of the barriers in using the Integrated Library Software. A study by using a different method, such as a qualitative approach with in-depth interviews with Librarians and users and their observations, could uncover other barriers.

5. Future studies could identify various barriers occur at different stages in the use of Integrated Library Software, and how these obstacles could be overcome. Since most of the libraries in this study did not use the resources effectively, there could be additional barriers not yet identified.
7.4 Conclusions

In conclusion, it may be stated that the level of library automation has reached its grown-up stage in India. Though, there has been an upsurge in the usage of integrated library software in university libraries in the recent past, the present study, which covered all UGC funded university libraries under INFLIBNET programme, shows that the performance level of the library automated systems in university libraries is not very satisfactory. This situation calls for a serious attention from the library authorities and professionals in India, to work out ways and means of improving the situation. Only well planned concrete and coordinated efforts could lead to a satisfactory solution to the problem.

To sum up, it is necessary to point out the fact that university libraries in India though well prepared for automation with regard to its infrastructure and technical aspects, are still unable to implement Integrated Library Software in a consistent and uniform way across the functions and services in full length. But it is also worth noting that integrated library systems do not exclusively represent the use of information technology in libraries. It also includes other electronic media resources, acquisition policy and processing of holdings on a co-operative basis, inter-library lending systems, document supply systems and gateway to electronic resources.

Further, technological advances are creating a number of issues and challenges with respect to resource collection, organisation and services. However, the most immediate challenge to Universities will be one of developing strategies to manage the transition from the print version to the electronic version. Library professionals will recognize the importance of
obtaining the necessary skills required to become competitive, and function effectively in the information age of twenty first century. The degree of knowledge and skill level required for librarians will be dictated by the needs of information sources made available to support the curriculum for the research. Current librarians must often be familiar with both print and electronic versions to help serve the information needs of several levels of library patrons.

Further, there will be a shift away from many traditional library practices that were once deemed as the core of library services and collections. Electronic resources have actually created more opportunities for patrons as well as for library professionals also. The challenge for librarians will be to learn to strike a balance between collection and providing access to print and electronic resources. In addition, librarians must keep in mind the needs of patrons as the resource of the library, as they build collections and prepare access. The professionals who keep pace with emerging technologies will be able to serve the basic information needs of the library patron.