Chapter VI

Findings, Suggestions and Conclusion

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6.1 Introduction

The present study has attempted to study and measure the impact of information technology innovations on resources and services of libraries of management institutes affiliated to University of Mumbai. It provides a broad over-view of the physical facilities, financial resources and human resources of libraries in general and impact of information technology on their library resources and services in particular. The study examines in detail the perceptions of librarians and library users separately.

In this research study the researcher has taken into consideration all relevant resources and services of libraries and examined them in detail to understand the impact of information technology upon them. Inferences were drawn from the analysis of the data. Subsequently, following findings have been evolved.

6.1 Findings of the Study: Librarians' Point of View

6.1.1 Financial Resources And Amount Spent On Information Technology

Majority of libraries are getting financial assistance from the trusts that manages them. Only two libraries are getting funded by the state government. Donations, Photocopying charges and sale of old newspapers also counted as financial sources in some libraries.

It is observed that majority of libraries spend big portion of the budget on books and journals and relatively less importance is being given to digital sources. There is no consistency in the amount being spent on Online Databases, CD ROM databases and IT infrastructure.
6.12 Human Resource And Information Technology In Libraries

The existing staff strength, both professional and non-professionals is highly inadequate compared to the rapidly changing profile of management libraries. About 9 libraries out of 22 have two professionals, whereas 8 libraries have only one library professional. About 3 libraries do not have any non-professionals to assist librarians and all the work has to be done by the librarian himself.

This has clearly affected the progress of automation at many libraries. Though majority of librarians agree that attending training programmes will improve their efficiency, only 9 librarians among 22 institutes have attended at least one workshop/conference in the past five years. This could be either because of lack of initiative of the librarians or institute’s reluctance to depute them to such workshops/conferences.

6.13 Status of Automation and Information Technology Infrastructure

It is revealed from the survey that majority of the libraries have automated their functions and remaining libraries are partially automated. The availability of software and hardware in these libraries is also encouraging in majority of libraries, with most of them having Pentium IV machines, servers to maintain database, workstations to access web resources and all required software.

6.14 Impact of Information Technology on Information Sources

One of the important paradigm shift brought out by information technology is the shift in emphasis from ownership to access. Information
sources are available in various formats like CD, DVD and Online versions. The study explicitly indicated that libraries could save lot of storage space by acquiring journal back volumes, dissertations, and books in digital form. It was also found out that libraries can save lot of amount being spent on binding, shelving, cleaning and maintenance of bound volumes by migrating to digital sources.

However, survey also indicated two things about which all the librarians are very cautious. That is, e-resources require expensive infrastructure and though user friendly, they demand certain degree of efficiency to access them. Analyses also revealed that CD-ROM databases and online databases have recorded high utilization, indicating that majority of users have accepted e-resources.

6.15 Impact of Information Technology on Information Services

Study reveals that majority of librarians agreed computer based information services are better than manual services, because they are accurate, consistent, and can be provided with much less time. They opined computerization has had a positive effect and improved the image of the libraries.

6.16 Internet Access at Management Libraries

Major portions of digital sources are available in online version. Hence, high-speed Internet access is highly desirable. Majority of libraries do have Internet access. Survey indicated that different libraries have different mode of Internet access like leased, dial up, with varying speeds. Though internet has
come in a big way for the past one decade, it is interesting to note that majority of libraries have internet access since only two years. This study significantly pointed out that library staff uses Internet to the fullest extent for purposes like e-mail, e-journals access, online databases, reference services, etc.

6.17 User Education Programmes in the IT Environment

The study has revealed that majority of management libraries have realized the importance of user education programmes. About 18 libraries out of 22 provide such programmes. It is found out that majority of them provide this service at the beginning of academic year. And also noted was, in most of the cases, it is the librarian who gives the User education by way of lectures and guided tours of half hours duration.

6.18 Consortia/Network of Mumbai Management Libraries

This survey and the subsequent analysis indicate that presently the participation of management libraries in any library network is not very encouraging. Only four libraries are participating in MANLIBNET network activities. However, it is interesting to note that majority of librarians are very well aware of consortia benefits and feel that such a consortia will definitely achieve better resource sharing. Librarians also admitted that they will be able to meet the user requirements to a larger extent, and consortia will certainly reduce their amount of funds spent on journals. Finally, survey clearly indicated that librarians are overwhelmingly in favour of formation of Mumbai Management Libraries Network/Consortia.
6.19 Collection Development Process and Information Technology

Collection development is an important function of the library. Libraries develop their resources based on a meticulously planned process. For this, librarians use several tools. Survey indicated that majority of librarians still depend upon publishers print catalogue. Publishers Websites and publisher-circulated emails are also used considerably. It was found out that majority of librarians use publishers website as major book selection tool because it provides full bibliographical details with price.

6.2 Findings of the Study: Users' Point of View

6.21 User Profile

1. Users in this study consisted of faculty members and students in different management institutes affiliated to University of Mumbai. Of the total 250 respondents, 190(76%) were students and 60(24%) were faculty members.

2. 100(40%) respondents belong to marketing specialization and 74(29.6%) to finance. About 34(13.6%) belong to Human Resource Management, 29(11.60%) to systems and some 13(5.2%) belong to other specializations.

6.22 Impact of Information Technology on Information Sources

3. The study reveals that majority of users have used CD-ROM databases in their libraries. User opinion and its statistical analysis indicates that users are convinced about distinct advantages like easy and convenient
search, consistency, low search time, etc. It is also found out that libraries need to have more computers with CD drives and further users require assistance while using CD-ROM databases.

4. The data indicated that majority of faculty members and students have made use of online databases. Analysis of the data further revealed that users agree that online databases have certain distinct advantages like easy and convenient search, consistency, most updated information, etc. Users also felt that sufficient number of computers with high speed Internet access and assistance while accessing online databases is very much essential.

5. The data indicated that majority of faculty members and students have made use of journals at their libraries. Further, it is also found out that e-journals have certain distinct advantages like immediate availability of issues, easy and convenient search, provision of hyperlinks to related references, etc. It is interesting to note that users are uncertain whether they need assistance while accessing e-journals.

6. It is observed from the data that the awareness about free e-journals and newsletters in the management discipline is not very encouraging. This could be because users are skeptical about the quality of such free sources.

6.23 Impact of Information Technology on Information Services

7. The survey indicated that considerable number of faculty members (43.33%) and majority of students (58.95%) are aware of Online Public
Access Catalogue services in their libraries. It is interesting to note that a considerable (46.00%) number of users still prefer a combination of manual as well as computerized catalogue for their search. This suggests that not all libraries have completely converted their card catalogues into machine-readable form.

8. The data reveals that majority of users are not getting circulation service on computer. It is also mentioned that e-mail is not being used to send reminders to users. Libraries have somehow failed to make use of this most economical and efficient way of communicating with users about library services and activities.

9. The data about users opinion on reference service and its analysis has indicated that relevance of information provided is good. It is interesting to note that majority of users indicated the use of both digital as well as print sources for providing reference service. The data further reveals that quality of reference service is essentially good when digital sources are used, thereby confirming the positive effect of information technology on reference service at management libraries.

10. From the analysis of the data on Current Awareness Service, it is evident that majority of users are indeed provided with current awareness service, generally through notice boards and verbal communication. Analysis further indicated that along with notice boards, email is a preferred method to receive current awareness service by as many as 72.34% faculty and 73.68% students. Further, library website was
indicated as preferred method to receive current awareness service by as many as 48.93% faculty and an overwhelmingly 85.71% students.

6.24 Information Technology Infrastructure and Libraries

11. The survey indicated that both faculty members as well as students are uncertain about the adequacy of information technology infrastructure at their libraries. Further, it is found out that students feel computers and other equipments in the library are always in good working condition. Faculty members are uncertain about this.

6.25 Internet and Management Libraries

12. It is found out from the survey that an overwhelming 86.67% faculty and 92.10% students have indicated the regular use of Internet. Majority of them access Internet at computer lab of the institute. Their purpose of accessing Internet is also different for different persons. Major purposes are: e-mail, accessing online databases, e-journals, download files, list serves and financial transactions to certain extent.

13. The analysis explicitly suggests that users are in favour of doing most of library transactions through Internet at their convenience. The analysis further reveals that users prefer to search library database using all possible approaches, know the availability of particular document, access current awareness bulletins, to pay for fee based services, if any and to know more about library services.

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6.25 Library Staff and Computer Based Information Services

14. The study found out that majorities of management libraries are not equipped with well qualified and knowledgeable staff at all service points. However, survey revealed that faculty feels staff willingly assist them in making the best use of digital sources of information and services, where as students are uncertain about the approach of library staff in this regard.

6.3 Implied Suggestions

The views and comments offered by the users have enabled the investigator to offer some feasible suggestions for deriving maximum benefit from the impact of information technology innovations on library resources and services.

These implied suggestions are mentioned below:

6.31 Digital sources of information like CD ROM, Online databases, e-journals have user-friendly interfaces. However, users have expressed the opinion that they need assistance while using them. Hence, library staff must examine these sources carefully to orient users about the same. It is recommended that librarians should develop exclusive presentations and demonstrations to educate users on how to get maximum benefit from these digital sources.

6.32 It is observed that the awareness about free e-journals and newsletters among users is low. Presently, several directory of open archives are available in the filed of management and allied subjects. Hence library
staff must search, identify and publicize information about such sources among faculty and students. It is strongly recommended that links to these open archives be given from the library website itself.

6.33 It is found that a considerable number of users still prefer to search a combination of both OPAC as well as manual catalogues for searching library collection. This could be because the entire collection of the library is still not made available in machine-readable form. Hence, librarians must make additional efforts to catalogue all holdings and make them part of library database.

6.34 It is observed that majority of users have indicated non-availability of circulation services on computers. This is because they are partially automated. Library staff must make all efforts to complete bar coding and necessary work to start circulation using computers. It is also observed that Libraries have failed to make use of email facility to send reminder to the users. Necessary steps should be taken to compile their email addresses and start the practice of making all library communications using e-mail. Hence it is strongly recommended that library management software be upgraded in such a way that the system automatically generates and dispatches reminders to the defaulters.

6.35 It is observed from the analysis that quality of reference service when digital sources are consulted is good and that IT has had a positive impact reference service. Hence librarians are requested to put additional efforts to procure more reference sources in digital form.
6.36 It is also observed in the analysis that users were not sure about the adequacy of information technology infrastructure in libraries. Librarians' must communicate and convince the higher authorities to allocate more funds to upgrade IT infrastructure. Instead of having one time grant, it is recommended that libraries should have an upwardly revising recurring grant to maintain and upgrade the IT infrastructure.

6.37 Analysis of data also indicates that most institutes have Internet access and majority of users use Internet on a regular basis. However, not many libraries have high bandwidth leased line Internet access. Without high bandwidth leased line access, utility of online versions will be very minimal. The price of high bandwidth, leased line, which was very prohibitive just two years ago, has become very economical now. Hence each library should go for a minimum 1 MB ISDN leased line for Internet connectivity. It is observed that users hardly visit institutes website, as only general and static information is available on website. Hence, it is recommended to all librarians to put more useful information on website.

6.38 There is an urgent need to make the website more interactive by putting dynamic information like Web OPAC, current awareness bulletins, etc on the website. Provision should be made in the website to reserve books, access bulletins, pay library dues, etc. Librarians should make all efforts to meet users expectation with regards to web based information services.

6.39 The study revealed that none of the management libraries have Web OPAC. This shortcoming will limit library OPAC to library premises
only. Librarians must explore all possible options; upgrade software to put their OPAC on web.

6.40 It is observed from the analysis that library staff is hesitant to upgrade their professional skills. Hence, staff must be encouraged to participate in workshops/conferences or any other training programmes to upgrade their skills. And also the authorities of the management libraries must depute their librarians to attend at least one such training programme in a year.

6.41 The study has revealed that librarians are convinced about the benefits of networking and consortia. Presently none of management libraries in Mumbai is member of any consortium. It is strongly recommended that Mumbai management libraries should come together to form a consortium/network.

6.4 Conclusion

Academic institutions and their libraries are experiencing a massive change in the way they function. Management libraries are no exception to this. Information technology innovations have found their applications in a big way in management and business libraries. The accelerating pace of information technology continuously raises the standards of user’s anticipation and expectation of new value added services.

Now a days information is available in variety of forms like CD-ROM’s, Online databases, e-journals, etc. Inventions of devices like CD-ROM and flashcards, which have huge storage capacity, have changed the outlook of libraries. These digital sources of information and storage devices bring drastic
changes in the management libraries because of their distinct advantages like convenience of search, low search time, most updated data, etc. These digital sources also require considerable expenses in infrastructure development. However, this can be overlooked when we see the manifold advantages.

Information technology also has a positive impact on all library and information services like Reference Service, Current Awareness Service, Online Public Access Catalogue, etc. Human resource is another aspect, which is influenced by the developments in IT and its application at libraries.

The future of the library and information services at management libraries depends upon two major factors:

- Availability of library staff in adequate proportion, which continuously keeps updating its IT skills.
- Determination of higher authorities in allocating appropriate recurring grants to procure, update and maintain IT infrastructure and digital sources of information.

The present study makes an all out effort to present the profile of libraries at management institutes affiliated to University of Mumbai. Further, the study also attempts to make an assessment of impact of IT innovations on library resources and services by analyzing the opinions of librarians and users. It can be seen that all the management libraries have realized the importance of IT and have started making use of it in a large scale.
6.5 Future Areas Of Research

The present study is confined to measuring the impact of information technology innovations on library resources and services at the institutes of management studies affiliated to University of Mumbai. Further the detailed studies on measuring the impact of IT innovations may also be conducted on all commerce and economic colleges, corporate libraries and libraries of private and unaffiliated management institutes in Mumbai. To get a broader perspective of the same, the scope may be widened to focus not only institutes in Mumbai but also all management institutes across Maharashtra state and India. It is evident from the literature survey that there is a need to measure and understand the impact of information technology on resources and services. This helps libraries in devising methods and plans to be prepared for technological changes.

This study indicates the librarians' perception about the formation of Mumbai Librarians Consortia. It touches upon the preparedness of management libraries in successful utilization of consortia approach. However, a full-fledged study which evaluates the preparedness of management libraries in terms of their financial resources, information technology infrastructure and skills of librarians in exploiting the resources made available under consortia is the need of hour.