Chapter 1

INTRODUCTION

Introduction

The present day society is characterized by ever-growing significance of information and therefore it is known as Information Society. Information Technology (IT) is a generic term used to denote various activities connected with acquisition, storage, transmission, retrieval and processing of information. Simply speaking, IT is all about the management, movement and sharing of information through applications, computer systems and networks. The constituents of IT are computer systems and telecommunication systems, which together made it possible to provide information more exhaustively than before. In the McGraw-Hill Encyclopedia of Science and Technology, Information Technology been defined as “the field of engineering involving computer-based hardware and software systems, and communication systems to enable the acquisition, representation, storage, transmission, and use of information.”

The growth of application of IT in number of areas coupled with its success prompted many libraries to adopt IT and use it for various library operations and services. The success of the library is measured by the extent of use of IT. Initially, the computer applications were limited to data storage and retrieval only. With the advancements in IT, libraries are gearing up to make use of these technologies to provide the information
quickly. The application of IT in libraries is indispensable and is being adopted in the
libraries for collection development, classification and cataloguing, circulation, storage
and retrieval, reference work, dissemination, administration, preservation, conservation
and archiving. All types of libraries all over the world have been experiencing the value
of the application of IT for creating databases to making accessible the information held
in these libraries. The academic libraries are in the forefront to embrace IT for their
library activities and for providing services to their user community. The college libraries
are also gradually adopting the Information Technology realizing the potential benefits it
offers to the user community in this category of libraries.

Need of Information Technology in Libraries

Library is a social institution with the sacred responsibility of collecting,
organizing, preserving and disseminating knowledge. Information Technology has
revolutionized information management to the extent that information will no longer
confine to the four walls of the library. During the last few decades, information
technology became a major factor on the library scene. The IT offers tremendous
opportunities to provide solutions to some of the problems the libraries are facing these
days and has great potential for a variety of applications in libraries as it contributes to
improved quality, productivity and more effective services to the users. The impact of IT
is visible in each and every activity of the library. The libraries have now a wide range of
IT based solutions to meet the demands of the users. Thus, the need of information
technology in libraries arises due to the following reasons.

- Failure of manual systems and methods to cope up the increasing demand
  for efficient and effective services
• The ability of the technology to process huge amounts of information with great speed and accuracy

• Availability of information resources in electronic format

• Inadequate physical infrastructure for storing the documents and equipment

• Ever increasing cost of printed documents

• Increasing awareness and demand of users for information

• Rapid technological developments and increasing affordability of technology

• Decreasing budgets or financial support for the libraries

• The ability of the technology to make information accessible to users on various networks and to remote places

**Statement of the Problem**

Libraries around the world have been adopting and making use of IT, in particular the computer technology, to automate wide range of administrative and technical processes. The wide spread application of IT in libraries has created a profound impact on all aspects of present day library environment. The college libraries are no exception and these libraries are not far behind in the application of IT for the library operations and services so as to provide better facilities and services to their user community that primarily consist of students and the faculty members. There have been a numerous studies conducted on the application of Information Technology in academic libraries, particularly on the university libraries. However, there have been no systematic studies on the application of IT in the Degree college libraries in India. As a result, no insights are available as to how Information Technology has been introduced and used in the
Degree college libraries in India. The impact of application of IT on users in the college libraries is also not known and is not well documented.

It is in this context that the researcher has undertaken the study to know the status of application of Information Technology and the level of user satisfaction in the Degree College Libraries in Chandigarh. The study has provided useful information, particularly to the Degree College librarians and others about the application of Information Technology and its impact on the users in these libraries.

Objectives

The objectives of the study are as under:

1. To ascertain the availability of Information Technology infrastructure in the Degree College libraries in Chandigarh

2. To assess the extent of use of Information Technology applications for various library operations and services in the Degree College libraries in Chandigarh

3. To identify the problems encountered in the use of Information Technology in the Degree College libraries in Chandigarh

4. To assess the level of users satisfaction with Information Technology resources and services

5. To find out the impact of application of Information Technology on the users in the Degree College libraries in Chandigarh

6. To suggest measures to take full advantage of Information Technology to make Degree College libraries more resourceful for providing information services.
Hypotheses

The following hypotheses have been formulated for the present study:

1. All the degree college libraries in Chandigarh are automated with propriety software.

2. Most of the degree college libraries in Chandigarh are yet to develop their independent websites.

3. The degree college libraries in Chandigarh are in the initial stage of developing information technology infrastructure and implementation of IT for various library functions and operations.

4. A majority of the students and teachers possesses information technology skills

5. A majority of the students and teachers are using on-line catalogues (OPAC) of their college libraries.

6. A majority of the students and teachers do not access the electronic resources in their college libraries.

7. A majority of the users are satisfied with the available electronic resources and services in the degree college libraries in Chandigarh.

Universe of Study

There are ten Degree Colleges in Chandigarh offering graduate and post-graduate programmes in Science, Commerce and Arts faculties with well established libraries. The researcher included all these Degree College libraries in Chandigarh for the study in hand. However, for this study, the researcher has excluded the technical degree colleges in Chandigarh and also one more college which was recently established and offers
degree programme in Commerce only. Since all these colleges were not offering post graduate programmes, therefore, the post graduate students have been excluded for the present study. The list of Degree Colleges in Chandigarh is as under. The colleges marked with (*) were renamed in the year 2010.

1. Dayanand Anglo Vedic (DAV) College, Sector 10, Chandigarh
2. Dev Samaj College for Women (DSCW), Sector 45 B, Chandigarh
3. Goswami Ganesh Dutta Sanatan Dharma (GGDSD) College, Sector 32, Chandigarh
4. Guru Gobind Singh College for Women (GGSCW), Sector 26, Chandigarh
5. Mehr Chand Mahajan Dayanand Anglo Vedic (MCMDAV) College for Women, Sector 36, Chandigarh
6. Post Graduate Government College (PGGC) for Girls*, Sector 11, Chandigarh
7. Post Graduate Government College (PGGC) for Girls*, Sector 42, Chandigarh
8. Post Graduate Government College (PGGC)*, Sector 11, Chandigarh
9. Post Graduate Government College (PGGC)*, Sector 46, Chandigarh
10. Sri Guru Gobind Singh (SGGS) College, Sector 26, Chandigarh.

Thus, the universe for the present study consisted of the libraries of the above mentioned ten degree colleges in Chandigarh.

**Sample for the Study**

The sample size for the present study was limited to 25% users consisting of students and teachers of faculties of Arts and Commerce from each degree college. Out of this, 5% and 20% constituted students and teachers respectively. Since there are a large number of students (19322) in the faculties of Arts and Commerce, the sample was limited to 966 students, i.e. 5% of total students in these colleges. The total number of
teachers (411) in faculties of Arts and Commerce in these colleges is less, therefore, 84 teachers, i.e. 20% were considered as sample size. The following Table 1.1 shows the details of the sample size selected for the study in hand.

**Table 1.1: Sample size for the study**

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name of the College</th>
<th>Students (5%)</th>
<th>Teachers (20%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Arts</td>
<td>Commerce</td>
<td>Arts</td>
</tr>
<tr>
<td>1</td>
<td>DAV College, Chandigarh</td>
<td>93</td>
<td>45</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Dev Samaj College for Women, Chandigarh</td>
<td>18</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Goswami Ganesh Dutta Sanatan Dharma College, Chandigarh</td>
<td>41</td>
<td>45</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Guru Gobind Singh College for Women, Chandigarh</td>
<td>17</td>
<td>22</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>MCM DAV College for Women, Chandigarh</td>
<td>75</td>
<td>34</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>Post Graduate Government College for Boys, Sector 11, Chandigarh</td>
<td>93</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Post Graduate Government College for Girls, Sector 11, Chandigarh</td>
<td>115</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>Post Graduate Government College for Girls, Sector 42, Chandigarh</td>
<td>97</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Post Graduate Government College, Sector 46, Chandigarh</td>
<td>55</td>
<td>36</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Sri Guru Gobind Singh College, Chandigarh</td>
<td>53</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>657</td>
<td>309</td>
<td>60</td>
</tr>
</tbody>
</table>

Accordingly, the sample for the study consisted of 1050 users, out of which 966 were the students and 84 were the teachers of the faculties of Arts and Commerce in ten degree colleges in Chandigarh.
**Delimitations**

Only the faculties of Arts and Commerce were considered for the present study as these faculties existed in all the ten degree colleges in Chandigarh. The Science faculty could not be considered as not all the colleges have this faculty. Also the students at the post graduate level were not considered for the present study as also the teachers who were teaching at the post graduate level. This was because all these degree colleges were not offering post graduate courses.

The sample for the study has been limited to only 25% users – students and teachers of the faculties of Arts and Commerce in all the degree colleges in Chandigarh. The study covered the application of IT in the Degree College libraries in Chandigarh up to December 2011 and has no control over the new applications and future developments that may take place in these libraries.

**Research Methodology**

The questionnaire method was adopted for collection of data for this study, supplemented by interviews and face to face interactions with college librarians, students and teachers to gather additional information. A draft questionnaire was designed based on discussions with professional colleagues and related research studies. Two sets of structured questionnaires were prepared; one questionnaire (Questionnaire-1) for the Librarians and another (Questionnaire-2) to the students and teachers.

The purpose of the questionnaire for the librarian was to get data regarding general information about the college, library and IT infrastructure in the college library. The second Questionnaire meant for students and teachers was to gather data on general information about the users, knowledge of IT, usage of electronic resources and services;
satisfaction level of users on the IT based services and facilities in the college libraries, impact of IT on the users.

The Questionnaire-1 was designed and pre-tested with two librarians of the college libraries under study. The Questionnaire-2 was designed and shown to experts to review with regard to accuracy, order of questions and ease of understanding and use for collecting the data for the study and also tested on a few students and teachers from Dev Samaj College for Women, Chandigarh to find out the limitations. The questionnaires were revised taking into consideration the respondents’ comments and suggestions. The modified questionnaires were used for the final survey conducted between July 2010 and December 2011 in all the degree colleges covered for the present study.

The random sampling method was used to collect the data from the users. The questionnaires were personally distributed to the librarians of the degree colleges in Chandigarh. The students and the teachers under the study were also given the questionnaires personally with briefing about the importance of the study and also assured them their data would be kept confidential and would be used for research purpose only.

All the duly filled in questionnaires from the librarians of ten degree colleges were returned. In order to get the questionnaire returned from the population of the study, the researcher had to follow up with the students and teachers time and again. After a series of visits to the colleges and repeated requests to the students and teachers and also through professionals working in the college libraries, the researcher obtained the questionnaires returned from the population of 1050 students and teachers.
It was too big a difficult task for the researcher to gather the information particularly from the students. The responses of the users are analyzed using percentage calculations and discussed in the Chapters of this thesis.
References


