CHAPTER - 1
INTRODUCTION

The developments in computer technology have drastically changed the way in which data is collected, retrieved and disseminated. As an impact of these technologies, manual information retrieval systems have been transformed into automated retrieval systems and have emerged as an excellent tool for information retrieval. It concerns all the activities related to the organization, processing, and accessing of information in all forms and formats. It is designed to enable searchers to find relevant information from an organized collection of information to satisfy their specific needs. Furthermore, the introduction of Information and Communication Technologies (ICT) in information processing techniques has completely changed the concept of information retrieval from automated to online information retrieval systems. This transition from automation to online systems has greatly affected the use of library resources.

Furthermore, the developments in information and communication technologies have expanded the scope of information retrieval systems from automated retrieval systems to online retrieval systems. Online information retrieval systems had started to emerge with the initiation of computer applications in information handling and processing, and in the past few decades, these systems have undergone several changes in their searching and retrieval capabilities. The internet and World Wide Web have made it available online anywhere at anytime. These are mainly designed to retrieve documents or information from remote database(s) that may contain abstracts or full texts of documents, such as articles, references sources, legal documents, statistics and so on, as well as multimedia information (Chowdury, 2010). Thus, in recent years, the online information systems have become an important tool of information access and retrieval and are considered as a significant source of information in academics.

Many online databases began as printed indexes to the literature of specialized subject domains. The early databases were in the form of electronic indexes to scientific and technical literature in medicine. Now, there are thousands of online databases that are produced by a number of government and private organizations. Learned societies and professional organizations have likewise been active in the
production of databases (Alberico & Snow, 1985). MEDLINE was the first online
dial-up service, introduced in 1972 and was offered by the online service providers,
Dialog (Lockheed) and ORBIT System Development Corporations (SDC). Now, the
searchers can access these databases either through database producers, or online
service providers/ vendors (Chowdhury & Chowdhury, 2007). Furthermore, advances
in computer memory allowed construction of very large databases, which enable fast
retrieval of information. Along with developments in national and international
telecommunication technologies and networking technologies have facilitated real-
time, interactive, online global access to these databases to a large number of users
(Gash, 2000). Since then, online databases are continuously growing in number and
providing different modes to access a multitude of information sources.

The widespread development and usage of online databases have a profound
impact on academic and research activities. These are the organized collection of
information with which users can easily access their information either on-site or
remotely. Online Databases comprise a wide range of information sources including
Gash (2000) acknowledged that the electronic databases are of central importance to
anyone who performs literature searches as they cover a wide range of subject areas
providing access to millions of logically arranged references of different types of
literature such as journals, books, reports, conference papers, patents, standards,
theses and dissertations and government publications, etc.

Today, libraries are continuously transforming their collection and services on
the one side, but on the other side, they are facing problems of shrinking budget and
increasing cost of information resources (Thanuskodi, 2013). Therefore, to overcome
these problems libraries are now looking for online databases as a means of acquiring
a wide range of information sources at an average cost. Furthermore, to justify the
amount spent on acquisition and provision of online database services in libraries, it
becomes necessary to determine the use of these significant sources of information. In
addition, the planning for budget also depends on the understanding of how
information resources are used by the patrons. Hence, the present study attempts to
obtain the data regarding the use of online databases in select universities to justify
the expenditure on acquisition and maintenance of online databases.
1.1. NEED AND SIGNIFICANCE OF THE STUDY

The research study that has been undertaken here is an attempt to assess the Use of Online Databases in Faculties of Social Sciences and Arts in Central universities in Delhi and UP, which will be useful in addressing the issues and problems related to the use of online databases in the concerned universities.

1.1.1. Need

In the last few decades, online databases have become an important information source for research and learning, and now these are considered as an essential component of the online collection of any library. Online Databases are an excellent tool for online information searching, which are widely used in various fields of education, particularly in the Science and Technology. Therefore, for optimum use of these resources, the proper assessment of online databases and its services becomes requisite. However, several studies have been conducted to measure the use and impact of online databases in science-related fields, and these have yielded positive results. Hence, this fact makes it requisite to identify the importance and use of online databases in the field of Social Sciences and Arts.

Besides, libraries are nowadays spending a huge amount of money on providing access to online resources to their users. In this regard, Nicholas, Huntington and Watkinson (2003) also recommended that libraries and their parent organizations should provide an overview and reasons for their expenditures made on access to digital resources. Thus, this impel to assess the use and value of such resources and to identify and understand the databases that are in use, as the cost of the information sources can only be justified by its use. This study will also provide recommendations to improve the usage of these valuable resources. Furthermore, there is no published study found on the topic of investigation with similar objectives to identify the use of online databases. Therefore, the present study will be helpful in providing a better understanding on use of online databases subscribed by the select university libraries.

1.1.2. Significance

The study aims to identify the importance and use of online databases in the fields of Social Sciences and Arts. The results of the study will help to:

- Make optimum use of Online Databases in the field of Social Sciences and Arts.
• Identify the issues that restrict users in making use of online database services.
• Improve library services in terms of reviewing the existing database services in libraries.

Therefore, the findings of the study will be helpful in improving organization and provision of online databases in libraries, enhancing the awareness and use of online databases, especially in the field of Social Sciences and Arts.

1.2. STATEMENT OF THE PROBLEM

The problem selected for the present study is entitled “Use of Online Databases in the faculties of Social Sciences and Arts in Central Universities of Delhi and Uttar Pradesh: A Comparative Study”. The problem attempts to understand the use of online databases in the Faculties of Social Sciences and Arts in Central Universities of Delhi and UP.

1.3. OBJECTIVES

The objectives of the study are:

i. To assess the awareness of online databases among the users in the faculties of Social Sciences and Arts of select central universities.
ii. To study the process of collection and management of online database among the libraries of the surveyed universities in Delhi and UP.
iii. To determine the library facilities and support services for online database use in the libraries of the select universities.
iv. To compare the use of online databases among the users of the faculties of Social Sciences and Arts in the central universities under study.
v. To assess the impact of online databases on the users in the faculties of Social Sciences and Arts of the universities in Delhi and UP.
vi. To determine the barriers in the optimum usage of online databases among the users of the select universities under study.
vii. To identify the level of satisfaction regarding the use of online databases, its collection and services among the users of the faculties of Social Sciences and Arts in the select libraries in Delhi and UP.

1.4. HYPOTHESES

The study addresses the following hypotheses:

i. There is significant difference in the level of awareness of online databases among users (Faculty Members, Research Scholars and
Postgraduates) from faculties of Social Sciences and Arts in the Central universities of Delhi and U.P.

ii. There exists significant difference in the collection of online databases among the libraries of select universities in Delhi and UP.

iii. Impact of online databases is higher among the users of the faculties of Social Sciences and Arts in the central universities of Delhi as compared to users of the faculties of Social Sciences and Arts in the central universities of UP.

iv. There exists a significant difference in the purposes of using online databases among the users of central university libraries in Delhi and UP.

v. There exists significant difference in the satisfaction level with respect to the use of online databases among the users of the faculties of the Social Sciences and Arts in the central universities of Delhi and U.P.

1.5. SCOPE AND LIMITATIONS OF THE STUDY

Libraries today are adopting different technology enabled services for providing online sources and services to their users in a more efficient way. Availability of online resources has added new dimensions in modern library services. Therefore, in the present study an attempt has been made to carry out in-depth study to gauge the use of online databases in select universities.

1.5.1. Scope

There exist seven central universities in Delhi and UP. It has been observed that the best input regarding the use of online databases could have been collected from those universities, which have higher grade in academics and research and are having proper infrastructure to provide online database services. After thorough investigation, the four prominent central universities have been selected for the study. Thus, the present study includes the four central universities of Delhi and UP, viz. Jawaharlal Nehru University (JNU), Delhi, University of Delhi (DU), Delhi, Aligarh Muslim University (AMU), Aligarh and Banaras Hindu University (BHU), Varanasi. The target population for the present study included librarians and users of online databases (Faculty Members, Research Scholars and Postgraduates) from the faculties of the Social Sciences and Arts among the select central universities in Delhi and UP.

The University of Delhi has decentralized education system; it has two separate campuses along with several colleges. Therefore, for the study, data has been
collected only from the main campus of Delhi University. The profile of the libraries under study is included in Annexure III.

1.5.2. Limitations

The major limitations of the study are as follows:

- The study was limited to the faculties of Social Sciences and Arts in the four central universities of Delhi and UP, i.e. DU, JNU, AMU and BHU. These are the oldest and established universities of Delhi and UP and are renowned for its education system in terms of research and teaching.

- The databases acquired through UGC consortia and other sources by the libraries have been covered in the study, while other online databases, such as OPAC and Open access online databases have not been included in the study.

- The Faculties of the Social Sciences and Arts of select universities have been considered as a unit for the study. As, the data collected from the Faculties of Social Sciences and Arts from all the universities under study observed negligible differences in the responses, so the investigator decided to merge the data of both the faculties as a single unit and a comparative study at state level (Delhi and UP) has been undertaken. In addition, the users of the faculties of Social Sciences and Arts were using the same online databases for their requirements. This is also a reason that the investigator preferred to conduct the research among the users of Social Sciences and Arts in central universities of Delhi and UP rather than the two faculties.

- There is disparity in the distribution of subjects in the various faculties and schools of the universities under study. The investigator has not ventured into the different subjects and there location in either of the subjects. For the purpose of this investigation, the subjects that constituted the departments/ schools have been considered as they existed under the faculties of Social Sciences and Arts in the universities under study. In JNU, the schools that constituted the subjects that are generally covered by the rest of the universities have been selected by the researcher based on the understanding developed by the existing literature and practice within other university systems in the country. The schools considered in
this study includes Schools of School of Language, Literature and Culture, School of International Studies and School of Social Sciences.

1.6. METHODOLOGY

Research methodology is a systematic way to solve the research problem. It has its own implications and importance in any investigation, as objectivity in any research investigation cannot be obtained until it is carried out in a systematic and planned manner. According to Busha and Harter (1980), Research Methodology is the pattern of procedures by means of which the identified problem will be studied. It is concerned with population under investigation, sampling techniques and size of the sample, place and timing of the study to be conducted, operational definitions of variables relevant to the research topic and techniques to be used for data collection and analysis. Thus, it involves careful and proper adoption of research design, use of standardized tools and tests, selection of sample by using appropriate sampling techniques, methods of data collection, systematic tabulation of collected data and use of relevant statistical methods for analyzing the data.

In order to accomplish the objectives and to collect the relevant data, the investigator has chosen survey method to determine the extent of use of online databases by the users of select libraries and services provided by the concerned libraries to their users. The nature of this study was best served by the use of the survey method, as this method is characterized by selection of sample from a large population to obtain empirical knowledge of contemporary nature. It is the most effective means for assessing the use of online databases and its impact on education and research. This knowledge allows generalizations to be made about characteristics, opinions, attitudes and so on, of the entire population being studied. According to Powell (1985), survey research is better suited for studying, exploring and analyzing relationships among a large number of cases. The methodology adopted for collection and analysis of data regarding the use and services of online databases in select university libraries is divided into the following sections:

1.6.1. Document Review

An exhaustive survey of related literature was undertaken before starting the work for proper understanding and orientation of the research work. The purpose of this exercise was to understand the concepts, developments, existing trends and techniques and other aspects related to the use of online databases. The investigator has consulted various primary and secondary sources for the study. The data relevant
for the research work has been collected from both printed and electronic sources of information and these are categorized as:

(a) Primary Sources: Scholarly Journals, Theses, Annual Reports, Websites of the concerned libraries.

(b) Secondary Sources: Encyclopedias, Indexing & Abstracting Journals, Magazines, Textbooks, Online resources, Dictionaries, Digital libraries, Brochures.

1.6.1.1. Literature Survey

A thorough search is made for related materials in different types of information sources, i.e. primary and secondary sources. The documents consulted for the study mainly includes journals, conference proceedings and books. A conceptual framework of the literature surveyed is categorised according to topic into different sections as shown in figure 1.1.

**Figure 1.1: Conceptual Framework of Review of Related Literature**
The researcher reviewed the related literature to identify survey instruments that could be adapted for the study and a bibliography is prepared of the most relevant and related research based articles. While reviewing the literature, there was no as such published literature available on the topic of study. The reviewed literature of related documents has been presented in Chapter 2.

### 1.6.2. Data Collection Methods

Several techniques are available for collecting relevant and authentic data. Being empirical in nature, the study is conducted using survey method constituting of two structured questionnaires. Questionnaires were used for collecting necessary data to achieve the objectives laid down for the research problem. The foremost advantage of this method was that a broad range of generalization could be made from a relatively large number of responses. Questionnaires were administered to a sample population in order to know their opinions and attitudes. For sample selection, the investigator used quota sampling and convenience sampling to collect data from a large sized population. Thereafter inferences were drawn from the responses of the representative sample of the total population.

#### 1.6.2.1 (a) QUESTIONNAIRE

Questionnaire is one of the most popular instruments for survey based studies. It is a tool to collect primary data from the diverse, large and widely scattered groups to conduct meaningful research work. To generate a reliable questionnaire, the investigator asserted to conduct a thorough review of all the literature related to the study and categorized them to generate questions for collecting the data. Questionnaires were prepared keeping in mind the objectives and hypotheses proposed for the study.

- **Questionnaire Design**

  As discussed, the investigator has designed the questionnaires keeping in mind the objectives and hypothesis of the study. Individual statements of the questionnaire were formulated using the related literature reviewed and the research objectives of the study. While designing the questionnaire, enough care has been taken to develop the questions that will accurately provide the required data that made the study comprehensive by including all necessary aspects without compromising with its ease and objectivity. The queries made through questionnaires are formed in such a way that the relationship of one question to another is readily apparent to the
respondent. Depending upon the need of the questions, the questionnaires included various types of questions such as dichotomous (Yes or No), multiple-choice and Likert five point and three point scale. To collect the necessary data for the study, the investigator designed two sets of questionnaires, one for the librarians and another for the users of the concerned libraries.

The questionnaire for the librarians was framed to take librarians’ opinion on facilities that facilitated the use of online databases and on other issues associated with it. It consists of a number of questions arranged in a definite order and style. The questions covered in the questionnaire are divided under the following heads:

- Collection of Online Databases
- Budget Allocated
- Collection Development
- Acquisition and Access
- Access and Usage
- Problems Related to Online Databases
- Facilities Provided by the Libraries
- Support Services
- Satisfaction and Training regarding the Use of Online Databases

The questionnaire designed for users is also based on the structural pattern covering various aspects such as:

- Awareness
- Use of Online Databases
- Search Process
- Features of Online Databases
- Impact of Online Databases
- Library Facilities and Support
- Problems and Satisfaction

Questionnaires thus designed, was subjected to the pilot testing to check the validity and relevance of the questions included in the questionnaire. After that, questionnaires were redesigned and administered for data collection. The investigator personally visited all the four universities under study and approached the librarians of the central libraries and users of concerned universities to collect necessary data.
The detailed questionnaires that were administered among the librarians and users are appended in Appendix-I and Appendix-II respectively.

1.6.2.1(b) USAGE STATISTICS

Online databases are sources of electronic documents acquired and popularly accessed in universities, for research and teaching purposes. The usage statistics of the databases are maintained by the vendors as well as the libraries. The transaction log in universities is not properly monitored and maintained, but the usage statistics from vendors are available with the concerned universities. According to Bernon (2008), although libraries use tools, viz., proxy log and IP addresses to assess the use of online databases, but they are reliable to measure databases usage discipline wise.

Nevertheless, the study attempts to acquire the necessary statistics from the respective libraries to assess the use of databases in the libraries of Delhi and UP.

All the libraries under study have subscribed to online databases under the UGC-INFONET Programme. The investigator has collected all the data required for the years 2013 and 2014 from the three libraries, i.e., AMU, BHU and JNU. A variation is found in the available number of databases and the databases pertain to a broader subject coverage, it was difficult to use the databases discipline wise, i.e. the Social sciences and Arts. So, the common databases having the desired subject coverage have been identified to compare the most used databases for the study. The list of databases have been appended in the profile of universities (Appendix III).

1.6.2.2.Pilot Survey

Pilot study was conducted to test the validity of the questionnaire designed for the data collection. It helps to ensure the conceptual clarity of various aspects covered in the questionnaire, standardization of questions, simplicity of language used and also to know drawbacks, defects, ambiguities, if any that exists in the questions. This pre-test was conducted to determine whether the questions asked generated the data required for the study. Both the questionnaires prepared for librarians and users were administered among the users in the Central University of Himachal Pradesh as part of the pilot study during the month of September 2012.

Questionnaires were distributed to the librarian and selected research scholars and postgraduate students registered in the School of Life Sciences and Mathematics and School of Computer& Information Science of Central University of Himachal Pradesh. The reason for choosing these groups of students for the pilot survey was that they all possessed similar characteristics as those research scholars.
and postgraduate students registered in the faculties of Social Sciences and Arts in the four selected central universities under study.

The pilot study was quite helpful as a number of feedbacks and suggestions were received from the respondents. All the suggestions were critically analyzed and needful modifications were made in both the questionnaires, wherever found necessary. One of the points expressed by some of the respondents was the lack of clarity of the questions. The question related to the awareness, where the option 'Yes/No' was modified to levels of awareness (extremely aware, neutral, etc.). This helped in making a distinction between the status of users regarding awareness of online databases. In another question, the option of “Home” that was used as an access point was replaced with “Remote access”, and some more options were added to the questionnaire. Some questions were also removed on the basis of the suggestions given from the respondents. Thus, based on the comments received from respondents in the pre-test, and the assistance from the library staff of the central university of Himachal Pradesh, the final questionnaires were developed for the study.

1.6.2.3 Population and Selection of Sample

In order to achieve the objective of the study mainly two variables were taken for detailed analysis, i.e. Librarians and Library users. The population from which a sample was drawn included faculty members, registered research scholars (Ph.D. and M.Phil.) and postgraduates from the faculties of the Social Sciences and Arts at DU, JNU, AMU and BHU.

As far as the selection of respondents among the users were concerned, it was not possible to collect data by taking responses from each category of the population. Therefore, the investigator used the quota sampling technique with the combination of convenience sampling. For sampling, the total population is first divided into three groups based on the academic status, viz., Faculty Members, Research Scholars and Postgraduate students. Then, in each quota, a number of questionnaires were distributed to a sample population selected through convenience sampling until each quota was filled. Special care was taken to select a representative sample from the total population of students during sampling. The researcher selected a sample of 757, 367, 268 and 486 out of total population of 7566, 3672, 2682 and 4863 users respectively in the four surveyed libraries for this study i.e. DU, JNU, AMU and BHU. The total number of population and sample selected for the study is shown in table 1.1.
1.6.2.4. Questionnaire Administered

The survey was designed to assess the use of online databases subscribed by the chosen libraries. It also focused on users’ awareness, preferences, problems, satisfaction, and expectations for library’s online database services. It was designed to assess users’ needs and services provided by the libraries for the use of available online databases. In this study, the investigator tried to find out the specific online database that were highly used as a source of information for the purpose of study and other purposes by the users. To determine the use of the library's online databases, the survey was conducted during the period of March 2013- April 2014.

A set of questionnaires were distributed among librarians in the central libraries of the concerned Universities to determine the online database use, its collection and related services provided by the libraries. The investigator distributed the questionnaires to the librarians and collected back the completed questionnaires from them for data analysis.

The questionnaires designed for users were distributed to faculty members, research scholars, and postgraduate students to determine the use and differences in usage of online databases among the users of the faculties of the Social Sciences and Arts in the select universities in Delhi and UP. Data was collected from the users of

Table 1.1: Total Population and Sample Population

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Faculty of Social Sciences</th>
<th>Faculty of Arts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DELHI</td>
<td>UP</td>
<td>DELHI</td>
</tr>
<tr>
<td>Faculty Members</td>
<td>DU</td>
<td>JNU</td>
<td>AMU</td>
</tr>
<tr>
<td>DU</td>
<td>16</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>JNU</td>
<td>164</td>
<td>93</td>
<td>141</td>
</tr>
<tr>
<td>AMU</td>
<td>33</td>
<td>177</td>
<td>49</td>
</tr>
<tr>
<td>BHU</td>
<td>26</td>
<td>144</td>
<td>66</td>
</tr>
<tr>
<td>Research Scholars</td>
<td>57</td>
<td>108</td>
<td>49</td>
</tr>
<tr>
<td>JNU</td>
<td>575</td>
<td>1076</td>
<td>487</td>
</tr>
<tr>
<td>AMU</td>
<td>178</td>
<td>177</td>
<td>120</td>
</tr>
<tr>
<td>BHU</td>
<td>144</td>
<td>144</td>
<td>131</td>
</tr>
<tr>
<td>PG Students</td>
<td>33</td>
<td>177</td>
<td>49</td>
</tr>
<tr>
<td>DU</td>
<td>26</td>
<td>144</td>
<td>66</td>
</tr>
<tr>
<td>JNU</td>
<td>575</td>
<td>1076</td>
<td>487</td>
</tr>
<tr>
<td>AMU</td>
<td>178</td>
<td>177</td>
<td>120</td>
</tr>
<tr>
<td>BHU</td>
<td>144</td>
<td>144</td>
<td>131</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>153</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td>3091</td>
<td>1528</td>
<td>1510</td>
</tr>
</tbody>
</table>
concerned faculties of select universities in between March 2013 to April 2014 during peak hours, i.e. 9 a.m. to 1.00 p.m. and from 2.30 to 5 p.m. on all working days. The questionnaires were distributed to users to collect data. A total of 964 questionnaires were administered in the faculties of Social Sciences and Arts respectively in the University of Delhi during the month of March, 2013. In JNU, overall 442 questionnaires were administered in the School of Language, Literature and Culture, School of International Studies and School of Social Sciences in the month of March, 2013. The Aligarh Muslim University was covered in the month of October and November in 2013, where 347 questionnaires were distributed in both the concerned faculties. In BHU, 705 questionnaires were administered during the period of March to April, 2014.

1.6.2.5. Response Rate

The investigator distributed questionnaires to the librarians of central libraries of select universities and got back the completely filled questionnaires. In DU, a total of 964 questionnaires were distributed among the library users, out of which, a total of 757 completely filled in questionnaires were selected for the analysis. In JNU libraries, 442 questionnaires were administered to the users of online databases in the faculties of Social Sciences and Arts. Among the 442 questionnaires, 396 were returned back where twenty nine were found incomplete. Thus the investigator considered only 367 questionnaires for analyzing the data. For this purpose, in AMU, the investigator administered a total of 347 questionnaires to the users of online databases. Out of which 305 questionnaires were returned back, 37 of them were found incomplete, thus the investigator considered 268 questionnaires for analysis. In BHU, 705 questionnaires were administered, among these questionnaires, 641 were returned back out of which 155 were found to be incomplete. Thus, the investigator considered only 486 questionnaires for data analysis.

A total of 2458 questionnaires were distributed among the library users of select universities, out of which 2231 were returned back, while 1878 were selected for data analysis and the total response rate was 76.40% (Table 1.3). The ultimate response rate from librarians of the central university libraries is 100 percent as shown in table 1.2. The response rate of online database users of DU, JNU AMU and BHU are found to be 78.53 percent and 83.03 percent, 77.23 percent and 68.93 percent respectively. Thus, indicating that the interest in the use of online databases and survey responses were high among the users of JNU. For better understanding, the
overall response rate of the librarians and users is shown in table 1.2 and table 1.3 and university wise questionnaire analyzed is shown in figure 1.2.

**Table 1.2: Librarians Response Rate**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Category</th>
<th>DU</th>
<th>JNU</th>
<th>AMU</th>
<th>BHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Number of Questionnaires Administered</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Number of Questionnaire Received</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Number of Questionnaire Analyzed</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>Response Rate (%)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 1.3: Administration of Questionnaire and Response Rate of Users (FM, RS and PG)**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Library</th>
<th>Number of Questionnaires Administered</th>
<th>Number of Questionnaire Received</th>
<th>Number of Questionnaire Analyzed</th>
<th>Response Rate (%)</th>
<th>University wise questionnaire analysed (%) (Out of 1878)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>DU</td>
<td>964</td>
<td>889</td>
<td>757</td>
<td>78.53</td>
<td>40.31</td>
</tr>
<tr>
<td>2.</td>
<td>JNU</td>
<td>442</td>
<td>396</td>
<td>367</td>
<td>83.03</td>
<td>19.54</td>
</tr>
<tr>
<td>3.</td>
<td>AMU</td>
<td>347</td>
<td>305</td>
<td>268</td>
<td>77.23</td>
<td>14.27</td>
</tr>
<tr>
<td>4.</td>
<td>BHU</td>
<td>705</td>
<td>641</td>
<td>486</td>
<td>68.93</td>
<td>25.88</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2458</td>
<td>2231</td>
<td>1878</td>
<td>76.40</td>
<td>100</td>
</tr>
</tbody>
</table>

**Figure 1.2: University Wise Questionnaire Analyzed**
The above figure shows the percentage of University wise distribution of the questionnaire. The collected data was coded to sort respondents by the group and to track survey outcomes. Collected data were, tabulated, interpreted and analyzed through suitable statistical techniques.

1.6.3. Data Analysis

After collecting the relevant data for the study from DU, JNU, AMU and BHU using various data collection techniques, such as questionnaires and literature review. The responses given in the questionnaires were coded and classified by reducing data into homogenous groups as to draw meaningful relationship. The statistical counting was done for each response by using self designed coding sheet and the data was processed for further calculations. The data was organized, analyzed, compared, consolidated, tabulated and interpreted by frequency counts, percentages and applying statistical tools. The software package SPSS have been used to verify the validity of results. In the light of above data, useful findings, recommendations and conclusion have been drawn. Based on analyzed data, findings, conclusion and suggestions have been drawn. A detailed analysis and interpretation of data is presented in Chapter 1.

1.7. TERMS USED IN THE STUDY IN THE STATEMENT OF THE RESEARCH PROBLEM

• **Use**

  According to Merriam Webster Dictionary (2012), Use is, “a method or manner of employing or applying something”. The term ‘use’ refers to accessing of online databases by different types of clientele, which include faculty members, research scholars and postgraduates in the faculties of Social Sciences and Arts in universities of Delhi and U.P., i.e., Delhi University, Jawaharlal Nehru University, Aligarh Muslim University and Banaras Hindu University for fulfilling their information needs.

• **Online Database**

  The term online database is defined by the Law dictionary (2012) as, “a web-based filing system used to store information or records, accessible by using web scripts. Use often requires a paid subscription.” It serves as a source of data for assessing the use, which includes subscribed databases accessible online by the users of the selected universities under study. It is a source of information that provides information in different forms (journals, books & theses, etc.) and formats (HTML, PDF, etc.). The select libraries are subscribing to different types of databases, i.e.
Bibliographic, Full-text, Multimedia and Numeric databases, etc., to make online
sources available to their registered users. Online databases provided by the
universities have been used as such for the study.

- **Faculties**
  
  The Macmillan Dictionary (2015) defines the term ‘faculty’ as “a branch of
teaching or learning in an educational institution”. The term faculty represents the
faculty of Social Sciences and faculty of Arts as mentioned in the respective
universities. The faculty of Social Science includes, Department of Economics,
History, Sociology, Psychology, Library Science, Political Science and Education,
etc., while the faculty of Arts includes the following departments; Department of
English, Philosophy, Languages, Linguistics and Fine Arts.

- **Central University**
  
  The Ministry of Human Resource Development, India (2015) defines Central
University as, “a university established or incorporated by a Central Act”. It is set up
by an act of Parliament under the purview of the Department of Higher Education in
the Union Human Resource Development Ministry and funded by the University
Grants Commission (UGC) for its maintenance and development. There are 46 central
universities in the country according to the list published by the UGC as on 20 May,
2015.

- **Delhi**
  
  According to Collins dictionary (2012), Delhi is, “an administrative division
of North India, formerly a union territory”. It is the capital of India and also is the
intellectual hub of Indian education system. It encompasses three renowned central
universities, i.e. University of Delhi (DU), Jamia Millia Islamia (JMI) and Jawaharlal
Nehru University (JNU).

- **Uttar Pradesh**
  
  The Oxford English dictionary (2012) defines Uttar Pradesh as, “a state in
northern India that borders on Tibet and Nepal; with its capital as Lucknow. It was
formed in 1950 from the United Provinces of Agra and Oudh”. It is a state of north
India, where the education system is quite old and established and the academic
institutions are growing at a very fast pace. There are four central universities in U.P.,
i.e. Allahabad University, Aligarh Muslim University, Babasaheb Bhimrao Ambedkar
University and Banaras Hindu University.
1.8. STANDARDS FOLLOWED FOR BIBLIOGRAPHIC REFERENCES

The investigator has followed American Psychological Association Reference Style (APA, 6th ed., 2009) for providing the bibliographical references. The prescribed standard of APA for giving in text citation, references at the end of each chapter and in the bibliography has been followed. Examples of different authorship are as follows:

Citation in the Text

(i) **Single Authorship works**

Computerized database is one of the outcomes of an application of computer technology to education and research. These are gaining attention from educators because of their potential for developing in students the very important skills of logical thinking, problem solving, and information handling (Parisi, 1985).

(ii) **Multiple Authorship works**

Electronic resources provide 24x7 access to a wide range of information at anywhere irrespective of time and location; and are widely appreciated and used by the user community. The users consider these electronic sources and services as important and valuable for their academic and professional activities (Bar-Ilan, Peritz & Wolman, 2003).

Citation in the Reference List

(i) **Book (Print)**


(ii) **Book (Online)**


(iii) **Encyclopedia (Print)**


(iv) **Encyclopedia(Online)**


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(v) **Journal Articles (Print)**

(vi) **Journal Articles (Online)**

(vii) **Theses**

(viii) **Web sources**

(ix) **Reports (Online)**
http://0-files.eric.ed.gov.opac msmc.edu/fulltext/ED267812.pdf

1.9. ORGANIZATION OF THE STUDY
The study entitled “Use of Online Databases in Faculties of Social Sciences and Arts in Central Universities in Delhi and Uttar Pradesh: A Comparative Study” is organized under the following chapters:
Chapter 1  Introduction

The chapter briefs the whole study undertaken, begins with the basic concept of online databases and background of the research. It includes the statement of problem, objectives, hypotheses, scope, significance and limitations of the study as well as definition of terms. Further, the chapter describes about the research methods used, methods for analysis and interpretation of data, organization of the study and standards used for bibliographic references.

Chapter 2  Review of Related Literature

Prior to launching the study, a survey of the related literature was undertaken. The purpose of this exercise was to understand the already existing trends, research gap, findings and problems to arrive at the right perspective. The research topic was divided into various sections and a search was made for related research material in various research journals, reports, seminar/conference proceedings etc.

Chapter 3  Historical Background of Online Databases

This chapter provides a detailed description of online databases and its background. The concepts, definition and types of online databases have been discussed in the chapter. This chapter covers the examples of online databases in the field of the Social Sciences and Arts like JSTOR, ScienceDirect, Emeraldinsight etc.

Chapter 4  The Art and the Social Sciences: An Overview

This chapter also provides an all-inclusive understanding of the disciplines, i.e., the Arts and the Social Sciences. It provides an outline of historical developments, concepts and organization of the subjects under these two disciplines.

Chapter 5  Data Analysis and Interpretation

This chapter deals with the analysis and interpretation of data collected through the survey. The chapter is divided into two parts, Part-A consists of analysis of librarian’s responses and Part- B deals with analysis of users’ responses. Further, the chapter illustrates different statistical tools that are used for analysis and helps to make generalizations of the study.

Chapter 6  Findings, Conclusion and Suggestions

This chapter covers findings, suggestions and conclusions of the study. The research areas for future work are also provided in the end.

The last part of the thesis contains Bibliography and Appendices. The questionnaires administered to the librarians and users are provided in Appendix I and
II respectively, and the profile of libraries understudy is included in Appendix III (list of databases).

1.10. SUMMARY

The shrinking budget of libraries, accompanied by steady growth of online resources, such as online databases have created the need to evaluate online collections in terms of its use and effectiveness. This has also forced libraries to develop strategies for sustaining key programs to maintain access and availability of online resources. Therefore, the current study is designed to determine the use of online databases in the four prominent universities in Delhi and Uttar Pradesh.

This chapter presents an overview of the entire study by stating the objectives, hypotheses and scope of the study. It illustrates the problem areas with which the study concerns itself. The limitations of the study as realized by the researcher have been defined in this chapter. It brings out the complete description of methodology along with the tools and techniques used to collect and analyze the data. Brief definitions of terms used in the study and the organization of the study have been provided in this chapter. The findings of the study will enable librarians to take informed decisions about online database collections, services and promotional activities. It will also help librarians to determine whether the available online database is serving the needs of users in the faculties of the Social Sciences and Arts as well as which database subscriptions should be dropped or added. In addition, the survey will bring forth those issues that were previously unasked and therefore unanswered.
REFERENCES


