CHAPTER- 1

INTRODUCTION

The purpose of this chapter is to bring the audience the overview and nature of research study undertaken. The chapter commences with the introduction explaining the statement of problem, concept, background, definition, usage, scope and purpose of the study.

Periodicals are an important channel in meeting the scientists crave for publications outlets, play a mandatory role in scientific and technological enlightenment of a country. Their importance is growing day by day because it is a fact that mostly new inventions and startling demonstration of ideas first arrived as periodical articles and a large number of these articles do not consequently achieve publication in any other form. Many periodicals are dedicated to ingenious exploration and carry usually original and nascent information. Since periodical article is the prime means of transmission for the interchange of scientific information, to facilitate the researchers and academicians to avoid the duplication of research and to endure with the latest developments in their fields, libraries are indulge to endorse and obtain indispensable periodicals.

Periodicals, which include journals, magazines, newspapers, and annual publications often contain the most appropriate or exact information on any given topic, are important sources for up-to-date information in all branches of learning, are all examples of serials. Serials are publications issued at intervals over a period of time in successive parts bearing numeric or chronological designations that are intended to be continued indefinitely. When they are issued frequently and more or less regularly, they are called periodicals, journals, or, more popularly, magazines. Furthermore, magazine or newspaper articles from the past conserve valuable historical information about how people lived, what they thought about, and how they experienced critical affairs.
Among the Periodicals, journals are recognized as the quickest and popular media of the mass communication as scientists prefer to publish their research results in the form of articles in journals of national and international repute as these are widely circulated amongst scientific community. Thus these journals help them to remain updated with latest developments in their fields. Since the articles are essentially condensed treatment of subject matters, they are more liked by the research workers.

By their nature, periodicals accomplish a further range of very productive assignments impossible for books. Apart from research articles, they contain correspondence columns often of great importance, permitting exchange of views about papers published, (or any relevant topic). Many carry book reviews, obituaries, editorial comment, and abstracts. Current news, professional announcements, advertisements, are also commonly found. In many cases they serve as 'organs', often of an institution, society or group. (Osborn, 1955.)

Because of their informational and research value, periodicals are an obligatory attribute of most library programmes. No library could now manage without them. Their number has so intensified that their existing growth is, astoundingly three times that of world population. (Shafi, 2005).

As the growth has taken place in each sector of the society industrially and scientifically, the significance of periodicals and their curiosity is being felt more and more by researchers. Apart from the research results, periodical contain new and recent information about every field of the society. Periodical publication contains very often the first hand information about the research – in progression, furnished in a particular subject field, are very useful for the clients of academic and special libraries.

This is the age of specialization, miracles and marvels of knowledge outbreak. Periodicals are regarded the balanced food for research works and constitute the back bone of library collection. Books virtually may become obsolete somehow but periodicals can and to keep up with the onward march of
research and development. No wonder more amount is spent by libraries for acquiring periodicals than books.

Modern times have witnessed a phenomenon growth in literature. The literature is worldwide in origin, international in language, diverse in subject content, complex in form, uneven in quality, tremendous in amount and also expensive. The research literature in Science & Technology is being published in more than 50 different languages of the World. In scientific research about 95% cited literature is available in periodicals. Literature is growing so enormously that it has been estimated that in science it is doubling every 5 to 10 years. (Singh & Kumar, 2005). Therefore, the investigator has decided to conduct a study to identify the periodical use by PG students, Ph.D. scholars and faculty members, and acquisition procedure and policies being adopted in libraries of IIT Delhi, IIT Kanpur and Delhi University.

1.1 Statement of the Problem

To achieve the goals and objectives of the study a clear and defined statement of the problem is needed. The problem selected for the present study is entitled “Periodical collection in IITs Delhi, Kanpur and Delhi University library: Acquisition and Use”. The problem is selected by the investigator is to understand the policies and methods being adopted by these libraries to acquire periodicals and use of periodicals by the PG students, Research Scholars and Faculty Members of IIT Delhi, IIT Kanpur and Delhi University so that libraries can make further improvement in their periodical services depending upon the results and suggestions.

1.2 Definition of Terms

Periodical: The Librarian’s Glossary defines periodical as “a publication with distinctive title, which appears at stated or regular intervals, generally oftener than once a year, without prior decision as to when the last issue shall appear.” (Harrod. 1971).
Collection: *Oxford Dictionary and Thesaurus* (2001) defines collection as “the action of collecting or being collected or a group of things that have been collected.” (Elliot, Knight and Cowley, 2001).

**IITs:** IITs (Indian Institute of Technology) are the premier institutions established by the Govt. of India with the aim of providing meaningful education, to conduct original research of the highest standard and to provide leadership in technological innovation for the industrial growth of the country. ("Indian Institute of Technology, Kanpur", n.d.)

**Delhi:** Delhi, known locally as Dilli, and also by official name National Capital Territory of Delhi, is the largest metropolis by area and the second-largest metropolis by population in India. ("Delhi", n.d.)

**Kanpur:** Formerly Cawnpore city, administrative headquarters of Kanpur district, Uttar Pradesh, northern India, south west of Lucknow, on the Ganges river. The largest city of Uttar Pradesh and one of the largest in India, Kanpur has an area of more than 100 sq. mi (260 sq km). (McHenry, 1993)

**Delhi University:** Established in 1922, the University of Delhi (DU) is one of the premier universities of the country and is known for its high standards in teaching and research. (Ali, 2004)

**Library:** "A collection of books and other library material kept for reading, study and consultation." (Harrod, 1971).

**Acquisition:** “The process of obtaining books and other items for a library, documentation centre, or archive.” The term has been used here as a process to get the documents in library on being selected and approval granted by concerned authorities for their purchase. A strict definition of acquisition will include the ordering, claiming and receiving of materials. (Prytherch, 2000).

**Use:** According to *Random House Webster’s Unabridged Dictionary*, Use is “To employ for some purpose; put into service, make use of.” (Random House, 2002)
Oxford Dictionary and Thesaurus has defined Use as: The cause to act or serve for purpose; bring into service or treat in a specified way. (Wehmeier, 2003).

1.4 Objectives of the Study

Every work is incomplete in the lack of the objectives. The work done in lack of the objectives is always meaningless. The objectives determined in the case of the present study are:

i. To analyse the total institutional budget allocated to periodicals and to check the growth of periodical collection in Central library IIT Delhi, P.K. Kelkar library, IIT Kanpur and Central Reference Library, Delhi University.

ii. To study the process of acquisition of periodicals encompassing their mode of selection of print as well as electronic form.

iii. To know the problems related to acquisition of periodicals in the libraries under study.

iv. To find out frequency of print periodical usage by PG students, research scholars and faculty members and to ascertain how far periodical services have been utilized.

v. To examine the usefulness of arrangement of periodicals and their back volumes on the shelves in IIT Delhi, IIT Kanpur and Delhi University.

vi. To identify the awareness of e-journals, their frequency of use and the purpose behind using them.

vii. To ascertain priority in search techniques and find out the most popular search technique among users in providing frequent access to e-journals.

viii. To understand barriers that would discourage users in using e-journals and to suggest the ways and means for the effective use of the same.

ix. To know the use of periodicals through citation analysis of researchers and faculty members and establish a list of core scientific and technical journals for library users.
1.5 Hypotheses

The research work attempted to study the acquisition and use of periodicals including e-journals in the libraries of IIT Delhi, IIT Kanpur and Delhi University. In this concern the following hypotheses are aimed to be tested.

i. There exists significant variation in use of national and international periodicals among IITs and Delhi University library users.

ii. Users of IITs are better conversant with advance search strategies in comparison to Delhi University library users.

iii. There exists ample difference in satisfaction level of e-journals availability among IITs and Delhi University library users.

iv. Majority of users in participating libraries came across various difficulties while browsing e-journals.

v. Significant preference is being given to print journal citations over electronic citations by researchers and faculty members of IIT Delhi, IIT Kanpur and Delhi University.

1.6 Scope and Significance of the Study

The libraries in general and their periodical section in particular are experiencing pressing problems like literature explosion and consequent literature explosion i.e. inclining of periodical publications as well as articles published in them, creeping price, continuous shifting in thrust areas of research and birth of interdisciplinary research. In a nation like India the situation has turned chronic with inflation (devaluation of Indian currency) and fluctuation in exchange/conversion rates, static disproportionate library book budget, and increasing number of users/scientists.

The need, therefore, for optimum utilization of periodicals and maintenance of a manageable yet relevant collection becomes more acute than ever before. In order to have the optimum use of limited resources and communication of available knowledge, there is a need to relate the acquisition
of periodicals to their use. User survey is the most effective means of evaluating the periodical collection and its use of a particular library. The need is the most obvious in a country like India and the significance of such surveys has been pointed out by many.

As IIT Delhi, IIT Kanpur and Delhi University are famous for their academic excellence dealing with academic and research activities; there is high use of journals. So, only journal users (PG students, Ph.D. Scholars and Faculty Members) are selected for conducting this study to identify the periodical use by them, and acquisition procedure and policies being adopted in these libraries.

The work entitled "Periodical collection in IITs Delhi, Kanpur and Delhi University library: Acquisition and Use" is intended to bring out an overview of periodical acquisition and its usage in the libraries of IIT Delhi, Kanpur and Delhi University. The fundamental purpose of the study is to come across the acquisition of periodicals including their mode of ordering, selection and payment and the channels for acquiring periodicals (print as well as electronic) in the libraries of IIT Delhi, IIT Kanpur and Delhi University. The study helps to know about the growth and development of periodicals, purpose of using them, most popular periodicals, availability and use of various e-journal consortia and the satisfaction level of users with regard to existing periodical collection and services.

The selection and use of current periodicals by users reflect a process of examination, evaluation, acceptance and rejection of ideas. The investigator identify the core journals in the area of interest of users by conducting citation study in connection with availability of current literature in said libraries. The study put forward the pros and cons of collection in the above mentioned libraries and try to bring out users actual needs. The survey will also will try to identify the usage level of different e-journals consortia and various problems experienced by the users while accessing consortia based journals. At the conclusion the study laid down some significant points in the form of
suggestions derived from the analysis of data which in turn will help to enhance the use of periodical services in the libraries of IIT Delhi, IIT Kanpur and Delhi University.

1.7 Literature Survey

Prior to the launch of the study, a survey of related literature was undertaken. The purpose of this exercise is to understand the existing trends, outcomes and falls drops, so as to arrive at the right perspective. The research topic is partitioned into various sections and a search is made for related resource material in various journals, seminar/ conference proceedings etc. A bibliography is prepared of the most relevant and related research based articles. A detailed and in-depth study of these articles is made in chapter 2 and findings are pen down in chapter 8.

1.8 Methodology

Methodology has its own implication and importance in scientific investigation, because objectively any research investigation cannot be obtained unless it is carried out in a very systematic and planned manner. Scientific investigation involves careful and proper design, use of standardized tools and tests identifying adequate sample by using sampling techniques. Several techniques are adopted for collecting relevant and authentic data. Though there are number of data collection techniques are available among which worth mentioned embrace such as questionnaire, schedules, interview, observation, citation analysis, document review, psychological tests etc. The investigator has been used questionnaire, interview, document review techniques and citation analysis in data collection for the study. The investigator personally visited all three libraries under the study and approached the librarians and users of concerned institutes to collect necessary data.

i. Tools Used For Data Collection

In survey research questionnaire is widely used to gather data on the
particular problem. Questionnaires were administered to a sample of population in order to know their opinion experiences and attitudes. The premier advantage of this technique is that one can make broad range of generalizations from a relatively small number of responses.

- **Pilot Survey**

To spell out the validity of questions, the two questionnaires one for the chief librarian and the other for users were pre-tested before finalizing them. The main objective of pre-testing was to find out users opinion, the language used, to rule out ambiguities and doubts, if any so as to get target responses and results. During the entire exercise several suggestions were put forth from librarians and respondents. In the light of these suggestions several questions were manipulated and few new were also added in the final draft before being administered to the respondents.

- **Separate Questionnaires**

For this study two different sets of questionnaires were framed, one for librarians and other for users. Questionnaire for librarians was designed to get librarians view point on various issues related to collection, acquisition and use of periodicals in the three libraries. Questions have been included to collect information about library’s periodical collection, annual budget allocated to them, channels for acquiring periodicals and criteria for evaluating them. The detailed questionnaire administered among the librarians of the participating libraries has been given in the appendix I.

Similarly questionnaire for users contains questions related to the purpose of periodicals usage, use of various search strategies while using periodicals, problems faced while accessing them, periodicals consulted most, awareness of e-journals and consortia and need for training programmes. Most of the questions consists of multiple choices where respondents have been asked to tick mark their answer. The questionnaire has been appended as appendix II.
 Administration of Questionnaire

It is not feasible to collect large quantities of data having each and every library users in three different libraries. Therefore samples were selected by using stratified sampling method (having PG Students, Ph.D. Scholars and Faculty Members). Under stratified sampling, random sampling was adopted. Investigator visited all the three libraries and approached the concerned librarians seeking permission to collect necessary data. The questionnaires were administered personally among the PG Students, PhD Scholars and Faculty members.

A total of 297 questionnaires were administered in the month of February 2007 among the users of IIT Delhi library, 255 questionnaires were administered among users of IIT Kanpur library in the month of March 2007, similarly in the month of May 2007, 450 questionnaires were administered in Delhi University library among the PG Students, PhD Scholars and Faculty members. Out of which 240, 219 and 375 filled in questionnaires are collected back from library users at IIT Delhi, Kanpur and Delhi University respectively. 28 questionnaires from IIT Delhi library, 26 from IIT Kanpur library and 43 questionnaires from Delhi University library were rejected due to incomplete response. Finally 212 questionnaires from IIT Delhi, 193 from IIT Kanpur and 332 from Delhi University were furnished and used for data analysis.

The ultimate response rate from library users of IIT Delhi, IIT Kanpur and Delhi University is found to be 71.3 %, 75.68% and 73.77 % respectively. The response of users is shown in table- 1.

To evaluate the total collection, process of acquisition and use of periodicals in the libraries of IIT Delhi, Kanpur and Delhi University, a questionnaire was prepared for librarians and administered among all three chiefs. 100% response is received from librarians of IIT Delhi, IIT Kanpur and Delhi University. The response in shown in table-2.
Table: 1
Sample Distribution

<table>
<thead>
<tr>
<th>Categories</th>
<th>IIT Delhi</th>
<th>IIT Kanpur</th>
<th>Delhi University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PG Students</td>
<td>Research Scholars</td>
<td>Faculty members</td>
</tr>
<tr>
<td>Questionnaire Administered</td>
<td>160</td>
<td>95</td>
<td>42</td>
</tr>
<tr>
<td>Questionnaire Received</td>
<td>130</td>
<td>80</td>
<td>30</td>
</tr>
<tr>
<td>Questionnaire Analysed</td>
<td>120</td>
<td>67</td>
<td>25</td>
</tr>
</tbody>
</table>

(Figures within parenthesis are % age)
Table-2
Response from Chief Librarians

<table>
<thead>
<tr>
<th>Chief Librarian</th>
<th>Questionnaire administered</th>
<th>Questionnaire responded</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIT Delhi</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>IIT Kanpur</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Delhi University</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>

ii. Interview Method

As questionnaire method has certain limitations to collect the data, so the investigator also adopted interview method for data collection. The purpose behind interview was to fill the gaps in the information provided by the respondents in questionnaires and also to get additional information which normally people do not give in writing.

The investigator approached chief librarians and users and had an informal interview to clarify some doubts. Simultaneously, this also helped the investigator to collect the data on the areas which are not covered by questionnaires.

iii. Document Review

The investigator also consulted various printed and electronic documents such as annual reports, pamphlets, brochures, concerned library websites and other records of the libraries whenever is required.

iv. Citation Analysis

Citation Analysis is a technique of bibliometric study of literature based upon some degree of relationship between citing and cited articles or documents. Citation Analysis permits researchers to see how frequently a work has been cited in articles and is an invaluable tool for any literature review.

As IIT Delhi, Kanpur and Delhi University are dealing with various disciplines. It is not possible to include each and every subject for collecting
data. Computer Science, Mathematics and Physics are common among three libraries. So the investigator selects these three subjects for conducting this study.

In the present study, bibliographic citations of Doctoral theses available in libraries of IIT Delhi, IIT Kanpur and Delhi University during 2005-2007 were collected. The breakdown of the theses analysed is as follows: IIT Delhi 27 PhD theses, IIT Kanpur 22 theses and 29 theses in Delhi University in the disciplines Physics, Mathematics and Computer Science. As far as faculty publications in various journals and conference proceedings of IITs and Delhi University are concerned, the investigator personally collected publications randomly from faculty members belong to Computer Sciences, Mathematics and Physics. 47 faculty publications from IIT Delhi, 42 from IIT Kanpur and 33 faculty publications from Delhi University are collected in print and electronic forms. Citation analysis examined lists of references that accompany publication of faculty members and Ph.D. theses submitted in terms of certain pattern namely, document types, popular journals and the number of times an item is cited.

1.9 Sources of Information

Primary source of information such as annual reports, pamphlets, brochures, theses, concerned websites other records of the libraries are consulted whenever is required. Secondary source of information such as dictionaries, directories, text books both in print and electronic form are as per the need of the study also consulted.

1.10 Analysis and Interpretation of Data

The data which are collected from IIT Delhi, IIT Kanpur & Delhi University through various data collection techniques have been organized, analysed, compared, consolidated, tabulated and interpreted by using statistical techniques, tables, percentages and chi square test to verify the validity of results and in the light of above data, useful findings and conclusions have been
1.11 Standard Used for Bibliographic References

For providing the bibliographic references, American Psychological Association Formatting and Style Guide. (APA, 6th ed., 2009) format has been followed. Some examples are given as under.

Print Journal

Book

Article from an Online Journal

Wikis

1.12 Major Limitations of the Study
1. The present study consists only journal users of IIT Delhi, IIT Kanpur and Delhi University.
2. The geographical coverage is restricted to Delhi, and Kanpur.
3. The responses have been taken from P.G students, Research Scholars and Faculty Members and the data has been collected during the months of Feb-June 2007 only.
4. Owing to large number of disciplines, the investigator has restricted its scope to Computer Science Mathematics and Physics theses and faculty publications for the purpose of citation analysis.
5. Indicators such as in-house use, reshelving statistics, and photocopy statistics are ignored for measuring periodical usage because of non-availability of authentic records.
1.13 Chapterization

Chapter -1 Introduction

The chapter introduces the whole study undertaken. The chapter begins with explaining the importance of periodicals and background behind the research. It defines the terms used in the statement of the problem taken from renowned sources. In addition, objectives, hypotheses, scope and limitations of the study, and research methods used for the data collection and analysis have been explained.

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, findings and problems so as to arrive at a right perspective. The research topic was divided into various sections and a search was made for related research material in various journals, books, reports, seminar/conference proceedings, etc.

Chapter -3 Periodicals: An Overview

This chapter deals with brief description of periodicals, their definitions, historical development, importance, types, functions and problems. It gives an overview of electronic journals, their brief history, growth, definitions, characteristics, types, and difference between print and electronic journals.

Chapter -4 Acquisition of Printed Periodicals

This chapter covers the whole process of acquiring printed periodicals, various methods involved in their acquisition, problems encountered at the time of acquisition and solutions provided for the same.

Chapter-5 Acquisition of E- Journals

Acquisition procedure of E-Journals, management issues and the problems associated with them are provided in chapter 5. A synaptic account of various e-journals providers has been taken into consideration. The chapter also covers the major e-journal consortia initiatives taken at national and international level.
Chapter -6 Libraries under study

The chapter introduces the three libraries under study i.e. IIT Delhi, IIT Kanpur and Delhi University, their total collection, library budget, and major services in detail.

Chapter -7 Analysis and Interpretation of Data

This chapter deals with the analysis and interpretation of data collected through questionnaire, interview and citation analysis. This chapter has been divided into three parts. Part I consists of Librarian Analysis, Part II consists of User Analysis and Part III consists of Citation Analysis.

Chapter -8 Findings and Suggestions

This chapter covers conclusion, findings, suggestions and recommendation for further studies.

The last part of the thesis will contain bibliography and appendices. In appendix-I the questionnaire administered to the chief librarian, in appendix-II, questionnaire administered to users and in appendix-III, list of important journals in IIT Delhi, IIT Kanpur and Delhi University is given.
REFERENCES


