Chapter 2
Review of Related Literature
REVIEW OF RELATED LITERATURE

Review of related literature is very essential in a new research topic, because each research study has its own specific purpose. The purpose of the research is to discover answer to question through the application of specific procedure. The main aim of research is to find out the truth which is hidden and which has not been discovered yet.

Study of related literature implies locating, reading and evaluating reports of casual observation and opinion that are related to the individuals planned research project.

In any worthwhile study in a field of research, the researchers must have an adequate knowledge with the work that has already been done in the area of their research. Research worker must have up to date information about what has been thought and done in the area of their research.

The review literature should provide the reader with an explanation of the theoretical rational of the problem being studied as well as what research has already has already been done and how the findings relate to the problem at hand.

In brief, this chapter presents an overall review of studies conducted broad as well as in India in a chronological order regarding the topic. Investigator reviewed only those studies which are similar to the present study.

1) Jaguszewski and Miree (2000) studied that in the past, serial cancellations and storage decisions focused primarily on print resources. With the addition of electronic resources, librarians in large research institutions must now manage an integrated collection of both print and electronic formats. Identifies criteria
for these decisions and discusses issues that arise because of the complex nature of electronic resources.

2) Kushwah and Shivpal Singh (2001) study pointed out that print still predominates in journal publishing but they may fade very soon. Gradually, scholarly journals are moving towards reliance on digital forms. The studies have demonstrated journals use, usefulness and value. The scientists have steadily increased their reading, which according to a study done by National Science Foundation, was 90 to 106 articles per year in 1990.

3) Bauer (2001) studied that Libraries are experiencing rapid change as they add electronic resources. These resources are popular with patrons, but their usage is not captured in traditional library statistics. Libraries must find a way to represent the diverse data available for electronic resources in some meaningful way that allows for comparison with statistics for print resources. To do this, the Cushing/Whitney Medical Library has created two indexes, the Electronic and Print Usage Indexes. An index is a simple tool that combines data on items from a group into one number and so represents overall change in the group. The indexes at Cushing/Whitney show that in 1998–1999, patron usage of electronic resources more than doubled, whereas print use declined.

4) Seeds (2002) discussed patterns of use observed in a scholarly setting where severe remote library storage created greater incentive to rely on electronically archived journals (JSTOR). As awareness of electronic access increased, use of the equivalent paper collection declined. In fact, electronic use is on a significantly larger scale than that measured for paper. These observations permitted the author to confidently transfer all electronically archived journals to remote storage and to conclude that electronic journals can substitute for paper.
5) Sathe, Nila, Grad, Jenifer and Guise (2002) conducted a pilot journal-use study to test the hypothesis that patrons use print and electronic journals differently. During the month-long study, patrons completed sixty-nine surveys of electronic and ninety surveys of print journal use. Results analysis indicated that fellows, students, and residents preferred electronic journals, and faculty preferred print journals. Patrons used print journals for reading articles and scanning contents; they employed electronic journals for printing articles and checking references. Users considered electronic journals easier to access and search than print journals; however, they reported that print journals had higher quality text and figures.

6) Singh and Sharma (2002) explained the effect of electronics on the traditional role of the academic library as an institution that collects and stores information and markets available resources to its users. In the age of internet, the electronic information sources are very popular and highly cost effective. They are having an edge over print sources. For a librarian, a number of issues and challenges are associated with the usage of publication

7) Herring (2002) conducted a study on the use of electronic resources in scholarly electronic journals. Although information gathering use patterns in the traditional print environment has been studied for many years, the electronic environment presents a new and relatively unexplored area for such study. This article describes a citation analysis of research articles from scholarly electronic journals published in 1999-2000. The analysis focussed on the extent to which scholars are using electronic resources and the type and subject areas of online resources that are being preferred. Results indicates a growing reliance on electronic resources by scholars, a high occurrence of non traditional type of resources, and a relatively high use of interdisciplinary references.
8) Dilevko and Gottlieb (2002) conducted a study on print resources in an electronic age. While undergraduates typically begin researching assignments and essays using online sources, books and print journals remain crucial components of submitted work because of their completeness, accuracy, permanent accessibility, and in-depth nature. Online sources may be convenient, but they have shortcomings that make print sources necessary for submitting high-quality assignments.

9) King (2003) carried out a study and found that university libraries are rapidly moving toward electronic journal collections. Readership surveys at three universities with different levels of electronic journal implementation demonstrate how transition to electronic journal collections affects use patterns of faculty and staff. Although faculty use of personal print subscriptions remains significant, electronic personal subscriptions are used only infrequently by faculty even though this is an option available to them. On the other hand, electronic journal use is very high when available in library collections. Twenty-five year trends of reading by university scientists show substantial increases in average amount of reading with nearly all of this increase coming from library collections.

10) Lombardo and Miree (2003) study sought to determine whether library instruction could impact undergraduate business student’s attitudes and use of three materials: print materials, library databases and web resources. Over the course of a semester, pre/post instruction questionnaire were collected from 90 students enrolled in a business capstone course. Results indicate that after library instruction, students held more favorable attitudes towards print resources and used them in their research more than they had initially expected.

11) Waldman (2003) studied the freshmen’s use of library electronic resources. To encourage students' use of the library, and in particular of its
electronic resources, we need to understand what factors encourage students to seek out information in the library setting. Research has shown that self-efficacy influences academic achievement. This paper looks at the role self-efficacy plays in their search for information and use of the library's electronic resources, by surveying a class of freshmen at Baruch College. Their library and computer use were analyzed and correlated with their self-efficacy scores. Through statistical analysis, he found that use of the library correlated to the students' use of the library's electronic resources. He also found out that students who express an interest in learning about the library's electronic resources will be more likely to have higher self-efficacy.

12) Bodoma, Adams and Carmen-Lee (2003) in this article showed that however laudable the advantage of electronic books may be over physical print books, user preferences in every situation must be carefully analyzed before a paradigm shift from print to digital library resources can be successfully effected. The data for this paper come mainly from a survey of user preferences among students of the University of Hong Kong, which shows that an overwhelming majority (77%) of the respondents prefers print to digital.

13) Johnson (2004) conducted a study to find out user preferences in formats of print and electronic journals. The introduction of electronic journals and electronic versions of journals has made serial collection management more complex. Libraries may want to offer a particular journal in both print and electronic formats, but find that it is often not financially feasible. More publishers are charging separately for the print or electronic versions or charging a higher price for both bundled together. In order to make the decision about what format to purchase, librarians need to know the format preferences of the users.
14) Muswazi (2005) conducted a case study in which the objectives were to assess user involvement in print/ electronic resources (e-resources), integration, education and training, awareness, use and impact of e-resources at the University of Swaziland. Based on a questionnaire survey from a sample of first, final year and a mixed group of students, the results showed that users were not involved, user education inadequately covered e-resources, and users were not fully aware of and underutilized e-resources which consequently had a limited impact. The study recommends user requirements studies, comprehensive user education catering for varying student needs, installation of more computer terminals as well as user friendly access policies, aggressive marketing of e-resources and improvements in ICT infrastructure.

15) Bar-Illam and Fink (2005) showed that use of electronic journals increased with time, age or academic position was inversely related to the use of electronic media and journals. There was a gradual reduction in the use of printed journals as users preferred and used the electronic format more frequently. The use of a journal was not necessarily an indication of the preference of users. Accessibility and desktop access, home access, ease of retrieval and hyperlinks to outside content were the advantages of electronic journals and disadvantages of electronic journals mentioned were the lack of back issues and problems with reading a text from the computer screen.

16) Liu (2006) conducted a study on user perceptions, preferences and use between print versus electronic resources. The arrival and proliferation of electronic resources and digital libraries have a number of significant impacts on the use of print resources and traditional libraries. This study explores the extent to which graduate students in a metropolitan university setting use print and electronic resources. Graduate students seem to expect a hybrid of print and
electronic resources. They desire to meet their information needs through a mix of print and online resources.

17) Raza and Upadhyay (2006) conducted a study and findings showed that the researchers were aware of e-journals in AMU. Many research scholars accessed e-journals from their departmental labs and computer centres, for both research and to update their own knowledge, most of the researchers used both printed journals and e-journals, that study ended with the statement that e-journals would not replace the traditional print format but rather complement it as a new medium of communication.

18) Gardiner and Gobinda Chowdhary (2006) studied information behaviour of British university academics in three disciplines – computer and information sciences, business/management, and English literature. English academics make higher use of printed information resources, such as text and reference books, than academics of any other discipline included in this study; they generally tended to be the least frequent users of electronic resources such as full-text databases, indexing and abstracting databases, search engines, and internet sites. CIS academics generally tended to make greatest use of electronic-based information resources, and the least use of print-based information resources, and business/management academics fell somewhere in between these two disciplines. CIS academics were generally the most enthusiastic about the benefits of electronic resources, whereas English academics were the least enthusiastic about them.

19) Gon (2006) examined the use of print and electronic resources among the undergraduates at Monash University Malaysia and the Victoria University Programme in Sunway University Campus. The objectives were to find out the print and electronic information resources available to the undergraduates, their
perceptions of the use of information resources, the usage patterns and factors influencing the use of print and information resources. The main findings indicated that undergraduates relied upon and used the internet intensively. The undergraduate's perceived electronic resources that are subscribed by their respective universities in Australia and books to be more reliable and of higher quality than other resources.

20) Korobili, Irene, Tilikidou and Delistavrou (2006) conducted a survey to examine the use of library resources, focusing on e-sources, by the members of the faculty of a higher educational institute in Thessaloniki, Greece: to reveal the factors which influence the effective use of sources for academic duties; and to provide reliable information to both the administration and the library of the institute, with the aim of the improvement of library services. The great majority of the faculty of TEI uses printed sources more than e-sources, but they also use e-sources quite frequently. Use is mostly of books, websites and printed journals. Also, the results indicated that the use of e-sources is positively influenced by the respondents' perceived usefulness of resources, the convenience of access to the sources and their academic productivity.

21) Hannigan (2007) conducted a survey on 2,067 respondents, including undergraduate students (30.1%), graduate students (39.1%), faculty (12.5%), and staff (11.8%). Results were reported by question, broken out by status (undergraduate students, graduate students, faculty) and/or by discipline (Business, Humanities, Non traditional, Professional, Sciences, Social Sciences), and presented in tables or in the text. In general, most respondents (59.1%) were aware that the library provides access to electronic books. The library catalog and professors were the main ways respondents learned about electronic books. Approximately half (51.3%) indicated they had used an electronic book. Of those who indicated that they used electronic books (1,061
respondents), most (72%) had used electronic books more than once. The main reasons mentioned for choosing to use an electronic book included: no print version available, working from home makes getting to the library difficult, and searching text in an electronic book is easier. In answer to a question about choosing the print or electronic version of the same book, 60.7% responded that they would always or usually use print, and 21.5% indicated they would always or usually use electronic.

22) Kurata, Mine and Ueda (2007) carried out a study to show the position of electronic journals in scholarly communication based on Japanese researcher’s information behaviour and estimation. The survey method was questionnaire. The results showed that Japan researchers used electronic journals as a matter of course, and other electronic resources to some extend for accessing information, but that shift to electronic resources seemed to be not a transformation but a modification of traditional patterns of use. Researchers relied on traditional scholarly journals for accessing information and publication, although their recognition has begun to change.

23) Tenopir, King, Clarke and Na Zhou (2007) carried out a study and results showed that paediatricians read journal articles primarily for current awareness and most often rely on quick reading from print resources for current awareness, convenience and purpose of reading were key factors that explain reading patterns of paediatricians. Print personal subscriptions were convenient for current awareness reading. Electronic journals system was convenient for reading for research because they provided access to a broader range of journals.

24) Chandra Prabha (2007) study tracked journal subscription and format data for a sample of 515 journals in the Association of Research Libraries (ARL)
university member libraries from 2002 to 2006. During this period, subscriptions to journals in print format decreased by 32 percentage points, whereas journals obtained in electronic format increased by 34 percentage points. Findings show journal collections in ARL university libraries reached a "tipping point" between 2005 and 2006 and that, for the first time, electronic journals dominate print subscriptions. For over a decade traditional print journal collections in all types of libraries have been transitioning into hybrid journal collections. The resulting hybrid journal collections provide access to journals subscribed to as print-only, as electronic-only, or in both print and electronic formats, as well as access to selected, full-text journal articles in aggregator databases.

25) Dhingra and Mahajan (2007) carried out the study to highlight the level of the use of the available electronic journals. The article also discussed whether attitudes of the users change depending upon gender, age, access place and branch of study etc. The opinion of users on awareness and features of e-journals, comparative usage of print and e-journals etc. was collected using questionnaire method. The major findings of the study revealed that the frequency of usage of electronic journal is increasing day by day.

26) Asefeh Asemi and Nosrat Riyahiniya (2007) investigated the relationships between awareness and use of digital resources among students in Isfahan University of Medical Sciences. A total of 250 students were selected randomly as a sample. A structured questionnaire was designed for collecting data. The results were that 70 percent of students were aware of digital resources, but only 69 percent of them have used them; 62 percent were aware of offline databases, whereas only about 19 percent used them through the Central Library LAN network. About 70 percent were aware of online databases, accessible via the Central Library web site, and about 53 percent of respondents
have used them. A total of 64 percent were aware of the “CLBJ Database”, while over half of them made use of it. In total 87 percent of students felt that the available data resources met their information needs.

27) Mawindo (2008) found that users have a choice between print and electronic resources. The proliferation of information available in electronic format has been perpetuated by rapid technological advances. Users have a choice between print and electronic resources. At the same time, the use of these resources is determined by what is available to the users and what the users prefer. Problems that users encounter in accessing resources determine their preference for either the print or the electronic format. The purpose of the study was to evaluate students' use of print and electronic resources at the University Of Malawi College Of Medicine. Using the survey method and a self-administered questionnaire and interview, findings indicated that students used both print and electronic resources. However, print resources were more heavily used than electronic ones. The students also preferred print resources to electronic. A lack of computers and low levels of computer and information literacy contributed to the under utilization of electronic resources.

28) Dilek-Kayaoglu (2008) carried out a study on Istanbul University facility to examine their use of electronic journals in particular to determine whether the users would be pleased by the cancellation of the printed or parallel published journal subscription in favour of the e-only journals. The majority of respondents supported the transition from print to e-only. The faculty in the fields of natural sciences and health sciences gave the strongest support for the transition from print to e-only, while the humanities and social scientist gave the least support respectively.
29) Manhas (2008) conducted a study to analyze the patterns of use of internet and electronic resources, the internet skills of the dentists and problems faced by them while using the internet and electronic resources in dental colleges and hospitals of Punjab, India. Most of the respondents accessed the internet from the college, while 19.3% also access from home, 42.6% of the respondents use the internet and electronic resources for finding health/dental sciences information. A majority of the respondents felt fully satisfied with internet services and electronic resources and stated that the internet and electronic resources could not replace the print resources.

30) Anunobi (2008) found that before the advent of information and communication technology (ICT), academic libraries were the sole custodians of information, which was predominantly in print. ICT brought changes necessitated by new information packaging. Academic libraries are faced with managing hybrid resources (print and electronic) and are challenged to acquire the necessary skills. Furthermore, electronic information is eroding the monopoly of academic libraries as the sole access point to information. Nevertheless, academic libraries can maintain their place by serving as an access point to both print and electronic resources. This paper discusses the nature of academic libraries in the digital age including resources, the concept of universal access, and the role of the in universal access to print and electronic resources. It also presents and describes a conceptual model of resource access for academic libraries in developing countries.

31) Steve, Betty and Eleen (2009) conducted a study to examine the use of geology journals at Washington State University (WSU), before and after electronic access was provided to determine if the use of the print collection increased as in the previous studied at WSU of three other science disciplines.
In light of inflation and package deals, librarians need to understand how faculty uses journals.

32) **Kanta Kapoor (2009)** conducted a study and the purpose of this paper is to quantify the use of electronic journals in comparison with the print collections in the Guru Gobind Singh Indraprastha University Library. The paper finds that, although many more users at the University are accessing electronic journals, it is not affecting the use of the print collection. The numbers of transactions and photocopy requests of print articles are continuously on the rise.

33) **Agboola (2009)** designed two part questionnaire to elicit information on use of print and electronic resources by agricultural science students in Nigerian universities. 912 respondents from faculties of agriculture in three Nigerian universities completed the questionnaires. The results revealed that agricultural science students most prefer to use textbooks (42.1%) among print materials, while The Essential Electronic Agricultural Library (TEEAL) is the most preferred among electronic resources available in their libraries (52.2%). Major problems faced by the agricultural science students include inadequate access to full Internet connectivity and lack of skills on their part to use available electronic databases properly. The study recommends restructuring library collections by increasing the number of agricultural textbooks and databases to meet the information use and retrieval needs of agricultural science students. Other recommendations include establishing Internet-ready computer centres to complement teaching, learning, and research in the library.

34) **Sudharma Haridasan and Majid Khan (2009)** presented the fact that electronic resources are a significant part of library collections. A large amount is invested in the development and management of e-resources in the libraries.
The study aims to identify the acceptance of e-resources in the National Social Science Documentation Centre (NASSDOC) library in New Delhi, India and determine their usage, performance, degree of user satisfaction, and barriers faced in the access of e-resources. The major findings of the study indicate that respondents are aware of the e-resources (such as e-books, e-journals, e-encyclopaedias, e-theses, CD-ROM databases, e-mail, internet and the OPAC). Large numbers of research scholars and faculty members were using these e-resources for their research work.

35) Slater (2009) in this paper tracks the use of several hundred books at Oakland to determine if there are discernable differences in usage based on format. It also examines usage to determine if collections of books that were locally selected exhibit different usage than those purchased through a consortium.

36) Kumar and Kumar (2010) aims to examine the perception and use of e-resources and the internet by the engineering, medical and management academics in Bangalore City, India. Data were collected from 300 students and faculty members in selected engineering, medical and management colleges of Bangalore City. Study results show that the students and faculty who participated in this survey are aware of e-sources and also the internet. Even though a majority of the academic community use electronic information sources for their academic-related work, most of them prefer print to electronic information sources.

37) Kacherki and Thombare (2010) found the information seeking patterns of the library users. They examined how the developments in information technology have made drastic changes in the way the information is collected, stored, retrieved and distributed. They also discussed advantages and
disadvantages of e-journals and suggested that printed and e-journals are complimentary.

38) Munira Nasreen Ansari (2010) studied that technology has penetrated all areas of life and the use of information technology (IT) has work procedures and approaches. Libraries use IT for better services and satisfying diverse user needs. Libraries have transformed into digital and virtual libraries where books, journals and magazines have changed into e-books, e-journals, and e-zones. This has increased the global dissemination of information. Electronic resources are easily accessible in the remote areas. Electronic resources solve storage problems and control the flood of information. Print sources are being digitized. There was a great need to study the use of electronic resources and investigate the factors that were a hindrance to their use.

39) Carter (2011) found that student participants did not know how to navigate the e-books presented to them compared with their print counterparts. There was a lack of awareness on the part of participants about e-books in general: the students were unaware that e-books were available through the library catalogue; they did not know that e-books have indexes as print books do; and did not know the differences among platforms offered by the library. All of these facts point to the importance of user education. The authors note the importance of testing of e-book platforms by students, faculty, and librarians prior to committing to purchase particular platforms. The authors note that more research is needed on user interaction with e-books, how e-books are used to assimilate information, and how groups other than undergraduates search e-books.
40) Sharon Premchand-Mohammed (2011) conducted a study, the purpose of this paper is to describe the challenges and examine the impact of the transition from print to electronic resources at a medium-sized academic library at a multi-campus Caribbean university, The University of the West Indies (UWI), with particular reference to the St Augustine campus. Libraries have successfully built a “hybrid” collection of print and electronic resources despite challenges with information and communications technology (ICT) infrastructure, balancing costs, licensing model and strategies for selection, acquisition and management of electronic resources. The paper focuses on the experiences and lessons learnt in moving a collection from print to a hybrid of print and electronic resources.

41) Rajeev Kumar, Gulia and Neenu Bhasin (2011) conducted a study and stated that a modern library is not a collection of printed books and printed journals. It is much than other materials. Today the library involves the fast changing e-environment of publishing. So the professional and academic librarians are facing a lot of problem due to static budget and exponential price hike of library collection and need of user for information is also increased day by day. There is rapid and dynamic change in the new generation library with the emphasis of e-resource. Consortia can become an excellent way in the process of collection, digitalizing organizing and making excess the electronic resource. A consortium is essential among libraries to cope limited budget, rising price for subscribing periodical and ever growing user information need. E-journal consortium is nothing but evolving a form of cooperation among the libraries which come together to share journals electronically. These revolutionary steps are providing scholarly resource including peer reviewed journals, databases abstracts, proceedings etc.
42) Sunil Tyagi and Ashok Kumar (2011) conducted a study to determine use and impact of Electronic Information Resources on quality of research in Pharmacopoeia Libraries in Northern India, Preferences of the Scientists towards print and electronic information resources. A total of 40 questionnaires were distributed to the selected sample for the current year; 34 valid samples were collected and analyzed. The result showed a growing interest in online journals among the Scientists of Pharmacopoeia Libraries in Northern India. The survey showed that majority of respondents marked that library possessed useful online journals and databases for the scientific community. Awareness among the users about the availability of online journals was found highly satisfactory. Online journals were mostly used for research needs. The Electronic Information Resources is better for accessing current & Comprehensive information. 100% marked to a very high extent electronic resources have become a substitute for printed materials.

43) Rojeski (2012) in this paper presented the result of a pilot program at Dickinson College where select reserve books for a class were purchased as e-books and linked through the course management system. The paper aims to shares the results of survey data, a focus group session, and usage statistics to evaluate the pilot. The study found a much higher use of e-books over print reserves. The survey and focus group responses also found a relatively high student satisfaction with the use of e-books, despite some reported use problems.

44) Dhanavandan Esmail and Nagarajan (2012) conducted a study to identify how electronic information resources are utilized by academic library users and specific trends that can be seen among faculties and students. E-resources usually consist of e-books, e-journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs, which are likely to be the alternative to
the print media. Further the study also examines the user pattern, acceptance, perceived importance and satisfaction on electronic resources over print resources. The major findings are students are leading users of e-resources in terms of respondents. Majority of the users (42%) indicated that they preferred print version of resources for their convenience, 36% of users from the computer science & information technology.

45) Groote and Dorse (2011) conducted a study to determine the impact of online journals on the use of print journals and interlibrary loan (ILL). Results of the statistical analysis showed print journal usage decreased significantly since the introduction of online journals. This decrease occurred regardless of whether a journal was available only in print or both online and in print. The decrease in use of the print collection suggests that many patrons prefer to access journals online.

46) Wu and Yeh (2012) found that student prefer electronic resources than printed materials, studies indicated that many electronic titles were left unused. A total of 443 students completed the questionnaires. Results indicated that most students agreed that library electronic resources were important to their study, but they did not use the resources frequently. Law correlation was found between student’s levels of computer competences and their frequency familiarity and perceived importance of electronic resources.
REFERENCES


REVIEW OF RELATED LITERATURE


