CHAPTER - III

REVIEW OF RELATED LITERATURE

The study of review literature is an important aspect in any research through which one understand the past trends in research output in any particular discipline. A review is a significant step to get clear pictures of what has been done and suggested already with regard to problem understanding. The study of the previous research findings gives a hint to the budding area of fresh research.

An attempt has been made by the researcher to collect the literature and studies which are related to the problem taken up for this study. The attempt is to highlight the finding of some of the studies related to this topic conducted which helps to undertake the present study in a systematic manner. A number of studies have been carried out on the awareness, usage etc., regarding electronic resources in the library and the studies are briefly listed below.

UNIVERSITY

In a study Kanakachary (1989)1 “User’s Survey of Engineering College Library, Osmania University, Hyderabad: A Case Study” revealed that 66.7% users were satisfied, while 33.3% were dissatisfied with the quality and standard of periodicals on subscription in college library.
Nearly 85% users were unaware of catalogue and more than 90% users were not satisfied with physical facilities. Clee and Maguire (1993) “Library Environment and Library Usage” concluded that although individual factors in library environment do effect users’ perceptions, it is the total library environment that makes greatest effect. Marshall et al (1993) brought forward that more students used libraries in problem based learning than in traditional programmes. Sanjeev Kumar and Mishra (1993) found that in NIFT library users were visiting library mainly for borrowing books followed by use of reference material and periodicals.

Jefferson and Hussain F (1998)² conducted a study on “Using the internet as a teaching resource”. It discusses how internet may be used to support learning and teaching, the motivation underpinning the need to use internet and the results show that in general spend 1 to 5 hrs on the internet during a week.

Paul F Burton (1998)³ conducted a study on “Electronic Journals: A study of usage and attitude among academicians”. The study aims to assess the attitude towards e-journals and examines the current level of use of these publications by university academics in five faculties. Consideration is given to both users and non-users, examining why they use or do not use this medium. The perceived advantages and
disadvantages of electronic publications are also examined. The principal limiting factor is that of time to find electronic journals; academics initially simply need time to come to terms with the new technology and to locate electronic resources.

Hart J L et al. (1999)\(^4\) emphasized the aspect that user education is to be provided for ensuring the optimum use of electronic resources. Here the authors argued that libraries should place greater emphasis on outreach to the faculty, improved marketing strategies and desktop access to information. At Texas A and M University and increasingly greater portion of the University Library’s budget was being spent on electronic resources and services. This study, a survey of a random sample of the faculty and teaching staff, was designed to determine whether these resources and services were being used by the targeted population and, if not, why. The results of the study indicated that lack of information was the greatest obstacle to use the electronic resources/services.

Majid and Abazova (1999)\(^5\) conducted a study entitled, “Computer Literacy and use of electronic information resources by academics: A case study of international Islamic University, Malaysia” and the study finds that persons who are computer literate are frequent users of internet and make best use of online resources.
**Chandran (2000)** made a study on “Use of internet resources and services in S V University, Tirupathi”. The study has found that a connection to internet helps a user to access different kinds of services which are offered through internet such as e-mails, e-journals, online database, OPAC etc., The researcher has also attempted to measure the perception of academic community towards e-resources and the findings are that most of the users are in the age group of 20-29 and they use it for e-mail purpose. Training should be given to make best use of the e-resources available on the internet.

**Saleh Al-Baridi and Syed Sajjad Ahmed (2000)** conducted a study on developing electronic resources at the KFUPM University. This paper presents an overview of the development of electronic resources at King Fahd University of Petroleum and Minerals library. It highlights the experiences in developing these electronic resources which are essentially provided as an alternative to the print and microform collection, in order to satisfy the information needs with greater speed, accuracy and efficiency.

**Ahmed, Syed Sajjad (2002)** has explained the management changes necessary to enhance web-based services in the Arabian Gulf Libraries. The study aimed at analyzing as to how to manage changes and challenges faced by the libraries and for the foreseeable future, and
the study attempted to find the communication within. The objective of
the study were to assess the current status of the web-based service
offered by the selected Arabian Gulf University libraries and to find
methods for improving the awareness, providing orientation and training
for users. The motto was to enhance the quality of web-based service.

Adika Gifty (2003) has analysed that lack of access to current
materials in libraries of universities in developing countries is a major
problem that hinders research and teaching. Interlibrary loans and
document delivery projects have not solved this problem by themselves.
The Internet makes it possible for users to have access to large volumes
of information irrespective of their geographical location. The three older
universities in Ghana are all linked to the Internet. The assumption then
is that their faculty now have access to current information through the
Internet. Research results show that in spite of the benefits of the
Internet, its use among faculty is still very low. The main reasons for this
are lack of access to the Internet and the need for training. Clearly,
university authorities need to take immediate steps to provide general
access points for faculty through computer laboratories. Again, the
expertise of librarians, information professionals and computer scientists
needs to be tapped to provide training and refresher sessions for faculty
to keep up to date on harnessing the immense potential of the Internet as a source of information for teaching and research.

Tinashe Mugwisi and Dennis N Ocholla (2003) attempted a study of internet use among academic librarians in the Universities of Zimbabwe and Zululand” (South Africa). The purpose of the study was to examine internet use, trends by academics and librarians at the Universities of Zimbabwe and Zululand, with specific reference to the use of resources for research and teaching. A survey by means of a questionnaire was conducted among the study population at the two institutions. Preliminary results indicate high computer and internet skills among librarians from both institutions. Inadequate training in the use of internet resources and lack of awareness among academics and other potential users are also highlighted. Despite these problems, the study reveals that there is a great potential for internet use and appreciation among academic librarians and users in the two institutions.

Another survey was conducted by Choukhande and Kumar (2004) named “Analytical Study of Information Needs and Use Pattern of Faculty Members and Research Scholars of Amravati University.” Author concluded that the purpose of user’s visit to library largely depends up on the free time available to them. Teachers preferred book
trade catalogue, bibliographies, indexes, abstracts, addition lists issued by library and periodicals to know current literature in concerned fields. Purnima (2005) “Information Needs in Higher Education: A Study of College Faculties in Manipur.” Author ascertained the information needs of college and university faculties. Survey revealed that majority of the college faculty members needed information for academic work, whereas university faculty members needed information to update knowledge and for research work. Most of the faculties of colleges and university were unaware of the use of IT, because of lack of infrastructure in libraries.

Judith Licea de Arenas, et al. (2004) have discussed about a growing concern for universities is developing a new educational model in which the student is educated both for future social responsibilities, and where information literacy is viewed as a lifelong learning requirement. Thus, there is a pressing need for empirical analyses to identify the extent to which university students are information-literate. Therefore, an investigation of university students from two institutions in the USA and Europe was carried out in order to determine how they use their libraries, information and computers. It was found that there were similarities and differences between the two groups of students from the University of Murcia, Spain, and the National University of Mexico.
Vicente Angel de, et al. (2004) have discussed the use of electronic information services by staff at GCU. It is part of a wider study which reports on usage by both staff and students. It builds on previous work at Leeds Metropolitan University, and as the user population at GCU is well understood the outcomes contain useful baseline data for comparison. It reports on the views of 97 respondents out of an academic staff of about 700. The freely available Internet was the most widely used source, which some respondents viewed as a more appropriate source of vocationally orientated information than pass worded databases. Less than a third used the catalogue to find EIS, which raises questions about the future of the catalogue as a free-standing comprehensive resource. Non-use of EIS was rarely due to difficulty of access or use. Staff were pessimistic about their student's skill levels in using EIS.

Adeyoyin, Samuel Olue (2006) have ascertained the information and communication technology literacy level among the staff of Anglophone (English-speaking) university libraries staff and their counterparts in francophone (French-speaking) university libraries in West Africa. A survey was conducted among the professionals, paraprofessionals and other members of staff of 28 university libraries comprising 24 anglophone university libraries and four francophone. The result of the findings showed that out of about 370 professional
librarians, only 179 of them were ICT literate while the remaining 191 professional librarians were ICT non-literate. This constitutes an overall percentage of 48.38 percent for the literate professionals as against 51.62 percent for ICT non-literate professionals. Also, out of 526 paraprofessionals, only 84 of them were ICT literate while the remaining 442 were ICT non-literate. This also constitutes 15.97 percent for the literate paraprofessionals as against 84.03 percent for ICT non-literate paraprofessionals. Other staff totaled 1,471. Only 190 of them were ICT literate while the remaining 1,281 were ICT non-literate. This also constitutes 12.92 percent for the literate other members of staff as against 87.08 percent for ICT non-literate other members of staff. Only two categories of skills, literacy and illiteracy, without gradations between these categories could be considered. The questionnaires were not design to catch the grades of these two categories of skills. The paper concludes that of all the 28 university libraries surveyed, only the 40 Senegal university professional librarians have an ICT literacy level of 100 percent. Thus other West African university libraries should encourage all their professional librarians, as well as other staff, to become ICT literate. The paper contains original work relating to the differences between English and French-speaking university staff as regards ICT literacy and as such will be useful for library technology planners and educators.
Adikata and Anwar (2006)\textsuperscript{15} “Student Library Use: A Study of Faculty Perceptions in a Malaysian University”, revealed that teachers played an important role in promoting the use of libraries by students.

Ahmadu Bello University, Zaria”brought forward that power outrages, slow Internet service and insufficient computers were the factors affecting the provision and use of electronic information resources at Ahmadu Bello University.

Ahmed Elhafiz Ibrahim (2006)\textsuperscript{16} has reported findings from a survey conducted to measure the use and perception of the United Arab Emirates University (UAEU) faculty members of electronic resources. The study pointed out that frequency of use of electronic resources was low; reasons cited were lack of time because of the time needed to focus on teaching; lack of awareness to electronic resources provided by the library; ineffective communication channels and language barrier.

All the researchers in science subjects frequently look for e-mails whereas 62 per cent researchers in social science and 20 per cent researcher in humanities have e-mail accounts. The study recommends that academicians should be encouraged to use electronic information sources and they should be given proper training for the use of online information sources.
Emojorho, Daniel et al. (2006) have analysed a study that aimed at looking at the extent to which staff of Delta State University, Abraka, Nigeria, are acquainted with and use information technology facilities for academic pursuit. The main instruments used for collecting data were questionnaires and interviews. Simple percentage was the statistical method employed. Data gathered through the use of the questionnaire and interviews reveal that most of the staff are not only aware of the existence of information technology (IT) facilities, but also employ them to satisfy their academic desires. From the study, epileptic power supply was adjudged the worst problem encountered in the use of IT facilities, while other problems include high internet service charges, unreliable telecommunication infrastructure, internet traffic congestion due to limited bandwidth and unsatisfactory performance of internet service provider. The study acts as an eye-opener to the staff and management of Delta State University, those of institutions of higher learning in Nigeria as a whole, as well as the government of the day, as to the true state of affairs relative to how far and well we have advanced in the application of IT for developmental purposes in a world that has gone so far in it, and try as much as possible to bridge the gap.

For the study 200 questionnaires were distributed among researchers: 80 for science, 80 for social science, and 40 for humanities.
The findings of the study reveal that 90 per cent of Internet use by the researchers in science was for academic purpose whereas only 30 per cent in social science and 5 per cent in humanities use it for academic purpose.

**Genoni, Paul, et al. (2006)** have discussed to explore the way in which the internet and e-research are changing the nature of scholarly communities and the relationship between researchers and libraries; and to suggest how librarians can become more engaged with the e-research process. A survey and focus groups investigating internet use by academic staff and research students at Curtin University (Western Australia) for e-research and scholarly communication purposes. The survey questioned respondents on their formal and informal scholarly communication practices and the extent to which these have changed due to internet access. Further questions explored the extent to which respondents' use of the library had been impacted by internet access to services. The survey and focus groups indicate that research users are positive regarding the usefulness of the internet for research purposes and for expanding their scholarly community, but their attitudes are also marked by ambivalence. In particular they report that the internet may not replace the need for some more traditional forms of scholarly communication. Respondents report making less personal use of the
library, but greater use of library services. The paper concludes with observations about changes to scholarly communities and the opportunity offered for academic librarians to develop the concept of e-research literacy as a means of enhancing their engagement with scholarly communities.

**Khaiser and Madhu (2006)**19 “Expectations and Perceptions of the Users of the National Law School of India University Library (NLSIU): A Study”. Investigators ascertained the expectations and perceptions of users about the facilities and services offered by National Law School of India University Library. Total 150 questionnaires were distributed and 124 were received back. It was found that 88% users visited library daily, but faculty members were not the regular visitors to library. All the users rated library as an excellent, very good or good. Users wanted easy access to library and new books on emerging subjects.

**Manimekalai A, et al. (2006)**20 in their study “Internet Use Pattern among the students in Annamalai University” primarily focused on the extent and pattern of use of the internet among 150 students in Annamalai University. The study investigated the relationship between motivational variables (intrinsic and extrinsic), demographic variable and the internet usage activities (messaging, downloading, browsing and purchasing). The findings revealed that the higher the class, more the
usage of the internet resources. Irrespective of the faculty or subject, the students’ work on the net was in the same frequency. It was also shown that perceived ease of use, perceived usefulness and perceived enjoyment are the important drivers of internet usage.

**Naushad Ali and Hasan (2006)**
undertook a survey of teachers to assess the library and information services of Aligarh Muslim University library under title “Library and Information Services in Central Library of Aligarh Muslim University from the Teacher’s Point of View: A Survey”. Approximately 86% users responded to questionnaire. Survey brought to light that most of the users were visiting library to collect teaching material and borrow books, while approximately 14% teachers visited for research purpose. Majority of the teachers were not satisfied with overall functioning of library.

**Preeti Mahajan (2006)**
brought out the level of internet use by researchers at Punjab University, Chandigarh, India. The author made an attempt to study the use of Internet, the level of usage and the usefulness of the Internet by the researchers at Punjab University in all three fields of education namely Science, Social Science and Humanities to find out their impact on their academic routines.
Kinengyere, Alison Annet (2007) have revealed Uganda has gone a step forward in ensuring that information resources available for researchers and students are maximally utilized. Academic and research libraries are participating in supporting and achieving the missions of their respective institutions by teaching the competency of information literacy (IL). This paper seeks to examine the effect IL has had on the usage of electronic information resources in academic and research institutions in Uganda. It aims to focus on the innovations that Makerere University Library (the biggest and oldest academic library in Uganda) has undertaken to ensure that library users (the Makerere University community and other collaborating universities and research institutions in Uganda) are trained on how to access a variety of available information resources, evaluate the information and apply it to address their needs.

Data were collected for the study using interviews to both library staff and users of the selected institutions: two library staff in charge of e-resources and ten students/researchers were interviewed from each institution. However, user statistics for the years 2004-2005, as well as the IL training sessions conducted, were the main sources of information. The study focused on academic and research institutions - Makerere University, Uganda, Martyrs University, Nkozi and National Agricultural Advisory Services (NAADS).
Biradar B.S, et al. (2008) in their study explored university students’ and teachers’ perceptions regarding their use of search engines for retrieval of scholarly information. The study was conducted among teachers and students of Kuvempu University. The study also examined the factors that influenced the use of search engines, search strategy for information retrieval and the methods by which students and teachers learn skills for searching. The study observed that 100% of students and 97.9% of teachers used search engines for information retrieval. Google and yahoo received the highest overall ratings. It also revealed that majority of respondents took help from their friends and help option of search engines to develop the skills for searching.

Kanniyappan, et al. (2008) in the article “use and impact of e-resources in an academic and research environment; a case study” described briefly a survey conducted at Anna university library, Chennai to find out the use of different types of electronic resources and services and their impact on the academic development of faculty members. Also described the problems faced in using the electronic resources and satisfaction of users in getting the required information. Analysis of 150 filled questionnaires from the different categories of teaching community revealed that all the respondents used computers, online services and majority of them used e-journals, internet, WWW for the research and
study purpose. Majority of the respondents felt that printed journals will not become obsolete in the near feature and most of the faculty members were aware of the availability of e-resources.

Sadanand Y Bansode and Shamprasad M.Pujar (2008)\textsuperscript{26} conducted a study to understand the purposes of use of internet, methods of locating information and search techniques used in retrieving the information by the research scholars of Shivaji University,Kolhapur. The study found that research scholars use internet for their research and communication purposes. It conclude that more awareness about internet resources and training in the use of the same needs to be provided by library professionals.

According to Sharma (2009)\textsuperscript{27}, the second highest preference in terms of e-resources usage after e-journals is the Web and e-mail with 30 (57.69\%) and 41 (78.84\%) among teachers, whereas 23 (76.66\%) and 18 (60.00\%) among research scholars use them, respectively.

Kaur, Baljinder and Verma, Rama (2009)\textsuperscript{28} have analysed the issues like use of electronic information resources, its impact on the collection of print and electronic journals its awareness among the users, and the places where the users are accessing these resources. A survey was conducted in the academic year 2006-07 at Thapar University,
Patiala. A total number of 504 users from the undergraduate, postgraduate, research scholars and faculty members were selected and their response was obtained with the help of questionnaire. The findings show that the users from all these categories were using e-resources; the awareness about e-resources encourages users to use such resources to the maximum; and the users are using computer centre and hostel more for accessing the information. The impact of e-resources was visible from the decrease in number of printed journals in comparison to the increase in number of electronic journals. The use of e-journals has increased manifold. The printed materials is being quickly replaced by the electronic resources.

Khan, Abdul Mannan and Ahmad, Naved (2009) have found out the level of awareness and use of e-journals by the researchers of the Aligarh Muslim University (AMU) and the Banaras Hindu University (BHU) - both central universities funded by the University Grants Commission. A well-structured questionnaire is administered to the research scholars of the AMU and BHU to collect data regarding the use of e-journals. The survey reveals that most of the research scholars are aware of the availability of e-journals and largely use them for reference purposes in their research work. They fully agree that with the usage of e-journal the quality of research work improves with enrichment of
appurtenant contents and materials leading to high-quality manuscript. It is however found that lack of training is the obstacle in proper and full utilization of e-journals. The present paper consists only of e-journal users and the geographical area is restricted to AMU, Aligarh and BHU, Varanasi. The scope of the paper can be extended to additional centrally funded universities. An intra-comparative study could also be made between some select central and state universities for users of e-journal. There are a number of studies on the use of e-journals, but this is the first of its kind within Indian central universities. As such, it should pave the way for research in other Indian universities as well as elsewhere.

**Patil and Parameswar (2009)** conducted a study on the use of electronic resources by the faculty members and research scholars in the Gulbarga University, Gulbarga. The data for the study was collected through questionnaire and analysed to understand information needs of the faculty members and research scholars in various PG Departments in the university. The study revealed that the electronic resources available in the Gulbarga University Library were much helpful in fulfilling their information needs. It was found that the necessary training must be given to the teachers and research scholars in using electronic resources.
COLLEGES:-

Lord J (2003)\textsuperscript{31} has discussed various aspects of access to electronic journals at the Royal College of Nursing (RCN). RCN had been offering remote access to electronic journals since 2001. Ensuring that the service was used effectively by the RCN’s large membership with different information literacy skills in UK and abroad is a challenge. A study outlined the various strategies employed to meet that challenge. RCN library and information services also worked with RCN Colleagues, developing the award winning online learning zone to ensure that the e-journals are promoted within an online learning environment.

Lawoe (2006)\textsuperscript{32} brought forward during study of serials use at Kwame Nkrumah University of Science and Technology Library, Kumasi that undergraduates were using journals significantly, as lecturers were recommending them. Gaps were found in collection development.

Vaishali Choukhande (2007)\textsuperscript{33} studied the “Use of Resources by research scholars in College Libraries of Amaravathi City” with special reference to electronic resources. The main objective of the study is to ascertain the main channel of communication in the changed and changing environment, to study the use, acceptance and impact of electronic resources over traditional ones and to ascertain the researchers’ preference for information sources.
LIBRARY:-

**Gupta (1973)**34 “Users Survey of the Laxmibai Nagar Branch of the Delhi Public Library”. Author examined the characteristics of users, use pattern, and users’ views about collection, services and facilities. Half of the respondents considered library collection inadequate while all most all the users were satisfied with services of library. Biswas et al. (1986) executed a survey titled “Central Secretariat Library: Users and the Pattern of Use-A Survey” to identify real users, their information needs, pattern of use and scope for new services. Survey led to conclusion that shortage of space has effected library collection and services.

**Krisiddappa et al. (1989)**35 “Information Use Pattern of Indian Historians”. Questionnaires were distributed to 150 persons and 121 responded. It had been found that majority of the users were using books/ monographs frequently followed by use of journal articles. Almost three fourth of the users were facing problems in getting up to date information.

**Dupuis E.A. (1997)**36 discusses that technological changes that are occurring rapidly and the students entering colleges are bringing very disparate computer skills and attitudes. Some students are reluctant to embrace new technology; others demand electronic resources for all assignments. By considering the computer access and Internet resources
available to the elementary school students today, it is possible to imagine what a user will expect from the libraries tomorrow. Although college students may arrive at libraries with increased computer skills, their knowledge of electronic information may be lacking. It defines the information literacy with an overview of information literacy skills. The Digital Information Literacy programme at Texas University at Austin serves as a case study for integrating information literacy skills into traditional services and partnerships.

**Sharma P.L. (1998)** Describes that Information technology (IT) involves computers, electronic media, and satellite, telecommunication and storage devices. It has made a deep impact on the academic libraries. The emphasis of these libraries is shifting from collection to access. Academic libraries in India still face several challenges due to the emergency of IT. It lists all the challenges and deals in detail about one of the foremost challenges, i.e. manpower development in the context of IT. It discusses the provision of raising the facilities on IT in the library schools, inclusion in curriculum, short term training facilities by other organizations, refresher courses, participation in workshops, seminars, conferences, conventions etc. For their own survival and for survival of the profession, the librarians have to play their role effectively in future; otherwise they will be replaced by a new group of professionals.

**Wilkinson F.C. (2000)** Describes that the electronic references are becoming an increasingly greater part of reference publishing and reference
collections. At present an interview – style discussion among several US academic librarians and publishers, who provide valuable insights in to the current and future position of print and electronic reference materials and reference publishing. Topics covered include: the proportion of a reference collection in electronic format and the proportion of reference titles published in electronic format; the extent to which publishers are abandoning print version of reference resources and the librarian’s reactions to this trend; the impact on librarians and publishers about the marketing of electronic resources that have as their core existing print resources along with the expanded or updated materials and links; and the importance of the usage of statistics for electronics resources.

Carol Hansen Montgomery, (2000) This paper addresses another important organizational impact triggered by the migration of electronic journals that has received little attention in the literature: the changes in the library’s operational costs associated with shifts in staffing, resources, materials, space and equipment. A common assumption is that converting library journals to digital format will ultimately improve the library service and lower costs, but this is yet to be proven. Understanding the total costs associated with the library model for delivering digital information has now become a requirement for library survival since in the digital world, as opposed to print, the library has many viable competitors, Our goal is to develop a framework for assessing the shifts in personnel and costs that can be used for
planning and budgeting at Drexel and provide guidance to other academic libraries which are not yet so far down this path.

Large and Beheshti (2000) in their study, “The web as a classroom resource: Reaction from users” have found that the internet is seen as an important resource, but not at the expenses of traditional sources. Multimedia aspects of the way are not used to its full potential, because it is very difficult to incorporate the medium directly into an assignment expressing sound or action which takes considerably more cognitive effort and time than using text or pictures.

Crowley K, et al. (2001) have worked on the emerging research communities and the WWW. The study aimed at contrasting the possibilities of the WWW to transform communities of educational researchers with actual patterns of the use of the Museum Learning Collaborative web site. The findings of the study included the highlight patterns of user interaction that have emerged and discussed the problems and opportunities of creating shared research resources in emerging fields such as museum learning research. The finding had direct implications for three stakeholders; program finder, project researchers and the larger museum research community.
Dulle, et al. (2001)\textsuperscript{42} has assessed the capability of agricultural libraries in meeting researchers' information needs, finding out means used by researchers to cope with the scarcity of scientific information, and based on study findings, give some recommendations on how to improve agricultural library services in Tanzania.

Ikoja-Odongo (2001)\textsuperscript{43} ascertained the information needs of informal economic sector in Uganda under title “A Study of the Information Needs and Uses of the Informal Sector in Uganda: Preliminary Findings”. Author examined the use of information and role and impact of information in the growth and development of concerned sector. Opinions of population under study were collected through focus group discussion, interviews of informants and organizations and observations. Study revealed the need for simplification of information packaging and improvements in its delivery.

Lally Elaine (2001)\textsuperscript{44} studied the perspective of researchers on electronic scholarly communication. The study explored the scholarly traditions and technological changes among researchers. Scholars were visiting the libraries to keep abreast of new developments in their field and had their own subscription to import journals in their field concerned. The study has showed that internet has changed all this surprisingly. The study argues that researchers and research institutions
need to find new ways of working together in order to understand and take full advantage of the emerging forms and media for scholarly communications.

Shaheen Majid, et al. (2001)\textsuperscript{45} have investigated the factors that contribute positively in shaping users perceptions of library effectiveness. A questionnaire-based survey of five major agricultural libraries in Malaysia was conducted. It was found that the adequacy of collections, services and facilities were closely linked to the perceptions of library effectiveness. Certain other factors contributing positively to the perception of library effectiveness were the adequacy and effectiveness of library promotion, involvement of users in the selection of library materials, convenient library location, participation in user education programmes, availability of assistance for using library resources and facilities, and subject background of library professionals. The paper suggests that for any reliable library effectiveness study, all factors associated with user satisfaction should be investigated together.

Sukovic.S (2002)\textsuperscript{46} discusses that the appearance of electronic text within the libraries during the past several years ha been a significant development for booth the library and research communities. At the same time, electronic texts have become a great challenge to the traditional roles in the library, research and publishing communities. Development of electronic
textual resources mean dealing with the documents in new ways and in
different levels, often involving work on a document's content through text
encoding. This development challenges the library's assumed position in the
research process. Discussing were done about why libraries should be involved
in text encoding, particularly since text encoding affects information access and
preservation, which are traditional library tasks.

Ching, et al. (2002) have revealed that knowing how the library's
collection is being used and how patrons are feeling about its collection
are important for the evaluation of the library collection. The former can
be measured by conducting library collection use studies and the latter
through a user survey method. Another method is to check library
holdings against standard bibliographies. The citation analysis technique
was chosen to evaluate the collection of the Ministry of Education library,
Singapore. Results were counter checked with ILL data analysis results.
Books were the most cited (96 per cent) resources followed by journal
articles (1.5 per cent) and 69 per cent of the citations were published
between 1980-1994. The library had only 20 per cent of the citations and
the rest were supplied through ILL. Results show a need for a change in
acquisition policy with more focus on books, reduction in non-used
journals, and development of an efficient ILL.
Miller, R.G (2002) explores the issues related to the selection and purchase of digital content in academic libraries, including commercially-produced databases, electronic journals, and books and other electronic resources that are purchased from vendors and in-house digitization projects. Considers the degree to which standard collection management principles apply.

SannaTalha and Hanni Maula (2003) conducted a study entitled “Reasons for the use and non use of e-Journals and databases: A domain analytic study in four scholarly disciplines”. The aim of this paper is to contribute to the development of a domain analytic approach for explaining the use and non use of e-journals and databases. They identified and defined factors to account for disciplinary differences in e-journal use, outlined hypotheses to be tested more rigorously in future research, and test them initially on a limited data set. The empirical data were gathered as a part of a wider qualitative study exploring scholars’ use of networked resources in four different disciplines: nursing science, literature/cultural studies, history and ecological environmental science. The findings suggest that e-journals and databases are likely to be used most heavily in fields in which directed searching is the dominant search method and topical relevance the primary relevance type, and less in fields in which browsing and chaining are the dominant search methods.
and paradigmatic relevance the primary relevance type. The findings also support the Bates hypothesis that domain size has an important impact on the search methods used.

**Van Brakel P (2003)** revealed that intranets and portals are supposed to provide an infrastructure through which end-users can gain effective access to information sources needed to assist in daily tasks such as effective decision making, planning and research. This paper discusses the current lack of clarity on how to address the external information issue in conjunction with the current popularity of portals and their multiplicity, emphasising in particular the confusion in regards to what constitutes each portal type. The issue of definition intensifies when the term information portals becomes added to the current list of portal categories. Do the latter belong to a unique category of portals or should it rather be seen as an umbrella term for other portals? When is a portal an information portal? To conclude, what should a strategy entail to ensure that external information sources are perceived by an enterprise as of strategic importance?

**Wagner, A.B (2003)** provides an overview of the development of electronic resources over the past three decades, discussing key features, disadvantages, and benefits of traditional online databases and CD-ROM and Web-based resources considers the decision to shift collections and
resources toward purely digital formats, ownership of content, licensing, and user interfaces.

Palmer, J.P and Sandler, M (2003) discuss the choices academic libraries are making between digital collections and maintaining print collections and describes results of interviews with faculty at the University of Michigan that investigated their use of print and electronic journals. Topics include convenience; access; books versus journals; differences between subject areas; and archiving.

Anjali Gulati (2004) discusses the status of information and communication technologies usage in Indian libraries with special reference to special libraries and the efforts made by various institutions to propagate e-information products and services. This paper highlights the consortia efforts in India like JCCC Consortium, INDEST Consortium, CSIR E-journal Consortia, and UGC Infonet. It further discusses digitisation efforts in India at NISCAIR, New Delhi, IIITM, Kerala, C-DAC Pune, and the Digital Library of India. In addition it incorporates details on major information systems in India (such as NISSAT) and major library networks in India (such as INFLIBNET, DELNET, CALIBNET etc.). The paper concludes with challenges for library and information science professionals and an overview of initiatives taken by Government of India.
Brinkley Franklin and Terry Plum (2004) made a study on the “Library usage patterns in the electronic information environment”. This paper examined the methodology and results from Web-based surveys of more than 15,000 networked electronic services users in the United States between July 1998 and June 2003 at four academic health services libraries and two large main campus libraries serving a variety of disciplines. A statistically valid methodology for administering simultaneous web-based and print-based surveys using the random moments sampling technique was discussed and implemented. At the two main libraries, there were approximately 1.3 remote users for each in-house user of electronic information. Sponsored research (grant funded research) accounted for approximately 32% of the networked electronic services activity at the health sciences libraries appeared to use networked electronic services most intensively from on-campus, but not from the library. The purpose of use for networked electronic resources by patrons within the library is different from the purpose of use of those resources by patrons using the resources remotely. The implications of these results on how librarians reach decisions about networked electronic resources and services are discussed.

Elizabeth Kiondo (2004) discussed about the emerging issues in selection and acquisition of electronic information resources in
academic libraries of developing countries paying particular attention to the situation at the university of Dar es Salaam Librarian. First discusses in historical perspective the application of information technology in provision of information services and specifically the provision of electronic information services at this university. Then it identifies emerging and challenging issues related to selection and acquisition of electronic information resources. The emerging issues include the information technology skills of staff and users, technology infrastructure, financial resources and collection development and management policy. In conclusion, the paper strategizes the way forward to make selection and acquisition of e-resources contribute towards promotion of research, scholarly communication, teaching and learning at African universities.

**Haruna (2004)**

“Utilization of Information Resources and Services of the Kogi State Public Library, Lokoja, Nigeria”, found that 40.9% users of a public library were partially satisfied with library material and were using it because they did not have any other alternative. Swarna (2004) invited the opinions of students and teachers about B.Ed. college libraries in Andhra Pradesh on library collection, services, opening hours, facilities, rules and regulations, reading facility and organization of documents etc. Helen (2005) “The 2004 User Survey
at the University of Hong Kong Libraries evaluated the University of Hong Kong libraries and found that majority of the respondents preferred to use online journals than print versions, but on the contrary about 72% users preferred to use printed books over the electronic.

James Cory Tuckera and Matt Torrenceb (2004) expressed that there are many challenges facing new librarians in the academic environment, including collection development. This article analyses the topic of collection development and how it relates to new professionals in the field of librarianship. The article contains a literature review of papers discussing the collection development curriculum in library and information science programs, expected skills required of collection development offices, and library training programs for new librarians. The article also provides practical advice by recent graduates and their collection development experiences. Topics of discussion include acclimation to a new environment, collection development policies and procedures, liaison work, resource selection, and time management.

Phillips Linda L and Williams Sara R (2004) have analysed collection development and management literature of the past seven years reveals distinct trends among issues, philosophy, and practice. Digital age themes reflect the increasingly networked nature of the profession, with new attention focused on scholarly communications and
publishing, digital collection building, consortia collaboration, and quantitative assessment. Some issues that dominated the library literature a few years ago, such as access versus ownership and organizational structure, have been eclipsed by other challenges, such as the serials crisis, finance and budgeting, and licensing. Neither solved nor forgotten, have they taken backstage to trendier subjects. Publications on organization, training, professional development, management of print collections, and subject-oriented collection development from 1997 through 2003 generally indicate reliance on traditional skills and knowledge even though practitioners are applying practical approaches to new formats and types of media. More theoretical commentary on fundamental changes emanating from an increasingly networked environment comes from authors who explore the implications of collection building in the digital age and challenge readers to imagine a vastly different future for collection development practice.

Shaji (2004) has conducted a study “Internet Cafes in Kerala: A user analysis” by visiting 30 internet cafes in Kozhikode and Malapuram Districts for examining the URL accessed by the users. The study aid a questionnaire survey among users and 46 questionnaires were used for analysis; It revealed that majority of the internet café users belong to male and student categories. Majority of café users have average
computer awareness and the major source of getting awareness is friends. The study also found that internet has not led to any considerable change in the reading habit of the users.

**Vivian Ramzy and Sajjad Ur Rehman (2004)** have discussed about the under-utilisation of electronic resources. According to their study, electronic resources are vital, but extremely expensive and medical libraries are genuinely concerned about their effective use. It is a widely held view that low awareness and poor skills are among the primary reasons for their under-utilization.

**Gulati, Anjali, (2004)** in his paper discusses the status of information and communication technology usage in Indian libraries with special reference to special libraries and the efforts made by the various institutions to propagate e-information products and services. This paper highlights the consortia efforts in India at NISCAIR, New Delhi, IITM, Kerala, C-DAC pune, and the Digital Library of India. In addition, it incorporates the details on major information systems in India (such as INFLIBNET, DELNET, CALIBENET etc.). The paper concludes with challenges for library and information science professionals and an overview of initiatives taken by the Government of India.
Ani Okon E, et al. (2005) have investigated the extent of adoption of information and communication technology (ICT) in university libraries in Nigeria. Postal survey was the instrument used for data collection. Almost 60 per cent of the University Librarians out of the 29 university libraries surveyed. The results of the survey show that only six university libraries are fully computerized nine are about to be computerized; seven of the surveyed libraries have installed local area networks, five have online public access catalogue and only four libraries provide internet service. The major obstacles that influence effective adoption of ICT in university libraries are inadequate funds and the poor state of electricity in Nigeria. The federal government should increase the present level of funding of Nigerian university to improve the library development fund, which is the major source of funding available to university libraries. The poor state of electricity in Nigeria should also be improved by the federal government for sustainable adoption of ICT by university libraries. The paper proposes that computer networking of university libraries is feasible and recommends the development of the Nigerian university libraries network and academic libraries network.

Asemi, Asefeh (2005) has determined the present status of familiarity and use of digital resources. It was felt that use of digital resources is still poor among the medical students of the universities in
the developing countries. This study investigated the familiarity and use of digital resources by students through on-line and off-line databases of the Central Library, Central Library Books and Journals Database (CLBJD), and the CD Roms available in the academic libraries (MUI). The study revealed that the use of e-resources is associated with the familiarity of the same. The major reason is less use of off-line databases are infrequent periodic orientation and education to use off-line databases and these databases may not meet the information needs of the students.

**Fabrizia Bebilacqua (2005)** has investigated at the university of Parma e-journals titles from a user view point, in order to find out what influence the approach adopted by the library may have on the use of e-journals and what characteristics the organization of e-journals should have to enable and easy discovery of resources. The group of users appeared still reluctant to use e-journals, the main barriers to use being lack of awareness and limited number of relevant resources. Users were favourable to being provided with multiple points of access to e-journals. Their preference appeared to be based on the familiarity of the method and similarity to the organization of the physical library. The organization of e-journals adopted at Parma had the potential to meet the users expectations, but its actual implementation seemed to require
more effective promotions and user–centered design. This paper may prove useful to humanities librarians engaged in providing user effective organizations of e-journals and in encouraging researchers and students to use e-journals.

**Mohammed Haneefa K (2005)** has investigated the use of e-resources in special libraries in Kerala. The study explored the specific factors that promoted or hindered the use of electronic resources. It was conducted in 30 libraries. The study reported that majority of the special libraries in Kerala have no OPAC, even though most of them are at various stages of computerization. The study revealed that very few libraries are using commercial online databases. Only two libraries have a separate Digital Library. Only three special libraries are participating in library consortia and this is for accessing for e-journals. The study also revealed that all the special libraries in Kerala are providing e-mail and WWW facilities. Majority of the libraries are under study are providing access to e-journals.

**Paul A, Manda (2005)** has focused on the use of electronic resources available through the Programme for the Enhancement for Research Information (PERI) of the International Network for the Availability of Scientific Publications (INASP) in ten academic institutions in Tanzania, but the use of other resources is also considered. Although
both staff and students have the capacity to access the electronic resources, there is a danger that the variations in the levels of adoption and use of these resources will lead to an information gap between institutions and individuals scholars and researchers. Problem identified and included limited availability of basic technical and human resources, limited access to PCs by students, inadequacy of the end users training and limited levels of use of PERI resources. The paper made policy recommendations on training in the use and marketing of electronic resources for specific user groups and resources.

**Tamar Sadeh and Mark Ellingsen (2005)** have revealed an overview of the trends and standards in electronic-resource management (ERM). This paper examines the challenges that rapid growth in the number of electronic resources and in the complexity of managing e-collections has posed for libraries and traces the progress in developing tools and setting standards to address such challenges. Particular emphasis is given to the work of the Digital Library Federation Electronic Resource Management Initiative (DLF ERMI) to develop ERM systems not only for managing e-collections throughout their life cycle but also for aiding collection-development decision making. The integration of such systems in existing library environments and the mechanisms that make such integration possible are highlighted. This discussion will help
librarians who struggle with the challenge of e-resource management to set their expectations about the potential of future tools to assist them in their tasks.

Wallis, Jake (2005) has argued that there is a need for an information literacy skill set for citizens of the modern information society, and that the role of library and information professionals may have to evolve, from intermediaries to facilitators and trainers. An opinion piece based on the author’s experience in digital library research, as a citizen of an information society and as a worker in the knowledge economy. That citizens of information societies have direct access to a bewildering range of digital information resources. Librarians and information professionals face less demand for their traditional role as intermediaries. Information literacy is defined and described as a vital skill set for citizens of information societies. It is suggested that librarians and information professionals are needed to pass on these skills to citizens at all levels of society for economic, social and personal empowerment. The paper reflects the perspective of the author - it is not supported by quantitative data (notoriously difficult to collect on information literacy). Provides suggestions on how the library and information profession can retain their relevance to society in the networked age. This is the particular viewpoint of the author, with a
diverse range of examples cited to back up the thrust of the paper. It describes how information literacy is required to interact effectively with the digital environment on an emotional as well as an intellectual level.

Naushad Ali, (2005)\textsuperscript{69} to examine the use of electronic information services (EIS) among the users of the Indian Institute of Technology (IIT) library in Delhi, India, both questionnaires and observational methods were used for data collection where 300 valid samples were collected. The analysis of data collected covers the awareness of EIS services, use of e-journals, advanced search facilities, acquaintance with electronic information sources, the purpose of using e-information, problems faced by the users while using EIS, infrastructure facilities available and the satisfaction level of the users. It is found from the study that Boolean logic and truncation are the most often used search facilities by IIT users. Lack of printing facilities, terminals and trained staff are the major reasons that would discourage the users from accessing the EIS. The survey also reveals that some 60 per cent of the users face difficulties while browsing e-information.

Appleton, Leo (2006)\textsuperscript{70} reported upon the design, implementation and findings of a research study investigating the perceptions of electronic library resources within the UK further education sector. While such resources are widely available to the sector, very little qualitative
investigation has been done as to its impact upon teaching and learning and how it is viewed by those who have access to it. The research uses a case study in which staff and students at three separate further education colleges are encouraged to explore and share their experiences of using electronic library resources. This is achieved through structured interviews with teaching staff and focused student discussion groups. Extensive reference to relevant literature is also employed as a method. The findings of the research are entirely qualitative, and are reported through a sequence of annotated quotations, which reveal personal experiences and perceptions of using electronic library resources and the influence and impact they have had on teaching and learning activity. The findings are limited to one case study, using three different colleges in the Merseyside area of the UK. The qualitative data provided through the research provides insight into electronic resource use within a cross section of the further education sector. It is therefore of use to those studying the impact of electronic resources, particularly within the further education sector. The research provides evidence which can be used to inform future e-resources policy. The findings can also be used to shape e-resources guidelines for practitioners in the further education sector.
King, Sandie et al. (2006) have investigated a survey into staff perceptions of the UK-wide information and communications technology (ICT) training conducted under the People’s Network programme for public library staff. A web-based survey was undertaken across several prominent UK mailing lists, seeking staff views on issues such as the usefulness of the training provided, and any perceived gaps in training that existed. The survey also asked what types of ICT queries staff regularly encountered. It was found that while the staff found the training rewarding, there were concerns at the lack of ICT troubleshooting in the programme, and the reliance on an off-the-shelf training programme not specifically designed for libraries, namely the European Computer Driving License, or ECDL. The paper suggests that ICT training for library staff should be built around problem solving and troubleshooting, rather than generic skills, in order to match the kinds of queries encountered in the front line of libraries. The paper is useful for anyone involved in designing library training programmes, or for researchers or students interested in the ICT skills necessary for librarians and the types of ICT queries encountered in the workplace.

Korobili, Stella et al. (2006) have examined 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. A census survey, using a structured questionnaire, among the faculty of the Technological Educational Institute of Thessaloniki was conducted to examine the frequency of use of resources, mainly e-sources, and to reveal the impact of demographic or academic situational characteristics, the assumed positive influence of academic productivity, perceived usefulness of resources and access to e-sources on the use of e-sources as well as the assumed negative influence of barriers and computer anxiety on the use of e-sources. 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. It was also found that the use of e-sources is higher in the School of Business Administration and Economics among those who hold a PhD degree and among younger members of the faculty. 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. The examination of the computer anxiety rating scale (CARS) provided evidence that the less anxious the faculty feel about PCs, the more frequent users they become. Further research is needed to measure how faculty interact with
information, what kind of electronic sources they prefer, what search strategies they use, as well as whether their information needs are satisfied. This research needs to be duplicated to other universities in Greece to determine whether the results can be generalized for Greek academic faculty. University administrations need to improve library facilities, to include more workstations for access to electronic sources, as well as to improve the marketing and communication of these e-resources. This research tries to fill a gap in the literature, which has underemphasized so far the need for assessing and measuring the use of library resources in Greek academic libraries and the examination of the factors that influence this use.

Margaret Markland (2006) in the study, Institutional repositories in the UK: What can the Google user find there? Investigated the efficiency of the Google search engine at retrieving items from 26 UK institutional repositories, covering a wide range of subject areas. One item is chosen from each repository and four searches are carried out: two keyword searches and two full title searches, each using both Google and then Google scholar. A further search tests the retrieval of the item from the repository interface. Known information seeking behavior was taken into account when interpreting the results. However some skill would be needed to evaluate the different versions of texts retrieved and
accessing the repositories through more sophisticated harvesting services might prove a better option for the scholar.

**Omekwu and Charles Obiora (2006)** have discussed a critical overview of the contribution of information technology to the current shift from information to knowledge processing. It situates that shift in the context of the management challenges for librarians from the developing countries. The approach adopted was to review the development challenges of developing countries, the in-trends information handling and the transition from information to knowledge management systems. The next approach was to examine statistically, the internet usage status and information and communication technology facilities in Africa. Based on the data provided and discussed the final approach was to draw up critical roles for developing countries’ librarians in the knowledge age. The findings indicate the abysmal state of internet usage and ICT facilities in Africa in particular and the rest of the developing countries in general. Librarians will be called upon to provide authentic and reliable information, evolve strategic alliances, participate in network activities and contribute to the bridging of the digital divide. They will emerge as technology experts, guides, scouts, researchers, analysts, knowledge engineers, editors, navigators, gatekeepers, brokers and asset managers. Conclusively, librarians will need to acquire new skills to access net
resources, and develop new strategies and services to meet the challenges of the knowledge age. The results and discussions imply that it is critically important for information professionals from developing countries to begin to re-evaluate their roles in terms of how they contribute to the management of technology and information in the knowledge age. They must participate in information and knowledge creation, undertake information resources documentation, provide an information identification service and evolve new means of resource preservation.

Ray Lonsdale and Chris Armstrong (2006) have investigated the role of the University Library in delivering information literacy skills relating to the use of e-resources to secondary schools in the UK. Six forms of collaboration were identified with a range of levels of information literacy skills evident. Collaboration is characteristically ad hoc, with little involvement of sectoral collaboration for school pupils. A fundamental lack of understanding of the respective roles of secondary school and university librarians was demonstrated. The first qualitative study that has explored the issues surrounding information literacy skills relating to the use of e-resources across the secondary and tertiary education sectors in the UK.
Sami, et al. (2006) have reviewed the impact of information technologies on users of libraries and to understand the problems encountered in their information technology (IT) usage by reference to the concept of "technostress", the inability to cope with the new computer technologies in a healthy or positive manner. A literature review was undertaken to further our understanding of the influence of IT based services on the users of libraries. The paper provides a literature derived set of information about library users who initially find it difficult to cope with the new technology and experience anxiety (termed "IT anxiety", "technostress" or alternatively "technophobia"). This is bound to affect their adoption of IT technologies negatively. They may eventually begin to avoid contact with computers. Since this avoidance strategy is highly impractical in the modern IT dependent world, the various causes of technostress must be analysed, so that users can be trained to overcome technophobia. The conclusions in the present paper are based on articles from different sources and not on any field study. Being a review article, it reflects the problems encountered by a range of users in different countries. The paper also pragmatically provides factors to be considered in designing a training module. The paper organises information collected from different sources and presents a consolidated picture of the problems encountered by users in exploiting computers in libraries, while suggesting the means to overcome these problems.
Safley, E (2006)\textsuperscript{77} provides an in-depth literature review of e-book usage and a discussion of how different e-book collections were used in a university. In conclusion, safely argues that “the demand for all things electronic is infiltrating into monographs in the form of e-books” and that “the closer libraries can get to giving customers segments of text, the more useful the item becomes.”

Kibbee, J (2006)\textsuperscript{78} investigates issues faced by academic research libraries in providing virtual reference services to unaffiliated users. These libraries generally welcome visitors who use on-site collections and reference services, but are these altruistic policies feasible in a virtual environment? This paper reviews the use of virtual reference service by unaffiliated users to determine their expectations, assess level of demand, and provide recommendations on how libraries should respond. Virtual reference desks can serve their primary constituency and function as a public good for external users if they understand and articulate their role as mediators in the information seeking process.

Van Scoyoc, A.M and Cason, C (2006)\textsuperscript{79} examine undergraduate students' research habits in a strictly electronic library environment at a large public university. Unlike most information commons, the campus' electronic library is not housed within a traditional library space and provides access to electronic research materials exclusively. This study
finds that undergraduate students in this electronic library rely primarily on Internet sites and online instruction modules (for example Blackboard or WebCT) for their research needs rather than university-funded research sources. Additionally, academic class status has no significant impact on whether students use either the library’s OPAC or the university-funded electronic databases for their research needs. The authors discuss possible reasons for these findings, new pedagogical practices as indicated by the results, and define areas for further research.

**Leo Appleton, (2006)** The purpose of this paper is to report upon the design, implementation and findings of a research study by investigating the perceptions of electronic library resources within the UK to promote the education sector. While such resources are widely available to the sector, very little qualitative investigation has been done as to cast its impact upon teaching and learning and how it is viewed by those who have access to it. The findings of the research are entirely qualitative, and are reported through a sequence of annotated quotations, which reveal personal experiences and perceptions of using electronic library resources and the influence and impact they have had on teaching and learning activities.

**Don Dickenson, (2006)** As a part of the 2006 Colorado Academic Library Impact Study, undergraduate students and the faculty from nine Colleges and universities were asked to provide information about the services
they used at their institution’s library. They were also asked about their success in accessing the resources through their own library and other libraries. Computer access is utilized by the students far more than by the faculty.

The use of interlibrary loan services is much more widespread among the faculty members than the students. Only slightly more than half of the surveyed faculties (52%) feel that they can usually find the print periodicals they need through their institution’s library.

**Alison (2007)** stated that to examine the effect of Information Literacy has had on the usage of electronic information resources in academic and research institutions in Uganda. It aims to focus on the innovations that Makerere University Library (the biggest and oldest academic Library in Uganda) has undertaken to ensure that library users are trained on how to access a variety of available information resources, evaluate the information and apply it to address their needs. Information Literacy is very vital in influencing utilization of e-resources. Information Professionals are needed to pass on IL skills to library users, while library users should endeavour to find out what information is available online for their consumption. Their attitudes and perceptions also influence the level of utilization.
Anna Marie Johnson (2007)\textsuperscript{83} has discussed the information may be used by librarians and interested parties as a quick reference to literature on library instruction and information literacy. The purpose of this paper is to set out to provide a selected bibliography of recent resources on library instruction and information literacy. Provides information about each source, discusses the characteristics of current scholarship and describes as sources that contain unique scholarly contributions and quality reproductions.

Barbara Elam (2007)\textsuperscript{84} studies the “Readiness or avoidance: E-resources and the art historian”. The aim is to study the information seeking behavior of art historians. The study emphasis on the impact of electronic resources and digital image databases on the research methodologies of today’s art historians. Although art historians depend on using the library for research, many have a limited awareness of electronic resources and have not fully developed the skills to utilize them to their fullest potential.

Cook Sir Albert (2007)\textsuperscript{85} has studied “The effect of information literacy on the utilization of electronic information resources in selected academic and research institutions in Uganda”. The aims of the study were to find out whether Uganda moved a step forward in ensuring information resources available for researcher and students and
maximally utilized, to find whether academic and research libraries were participating in supporting and achieving the mission of their respective institutions by teaching the users on how to access a variety of available information resources, evaluate them and apply them to address their needs.

*Davies, Ron (2007)* has described the experience of developing a library portal to provide integrated access to research information at the same time as an institutional or enterprise information portal was being implemented. The paper presents a case study. Valid grounds for implementing vertical, specialised library portals alongside horizontal institutional portals include reduced risk, faster implementation and reduced maintenance costs. Organisations seeking to provide integrated access to distributed information resources must consider library portals. This case study reveals that in practice there is little risk of overlap between institutional and library portals. Both types of product are complementary. However, some integration issues remain a challenge.

In research article “*Expectations and Perceptions of the Users of Public Libraries in Mysore City: A Survey*” *Nikam and Chandershekra (2007)* examined the expectations and perceptions of users including children, young adults, women and old towards public libraries.
Opinions of 200 users were collected through a structured questionnaire. About 90.50% users considered public libraries either as more important or extremely important. Users were not satisfied with the helpfulness of library staff. Respondents did not find it easy to locate the needed reading material from libraries.

Janine Schmidt (2007) has highlighted that as the younger generation of born digital library users and even well-established scholars rely increasingly on Google, or its new products for information resource discovery and access, libraries are finding it increasingly difficult to ensure that their own well structured websites and information services are being utilized appropriately. This paper aims to highlight some of the changes occurring in the information environment and suggests ways of marketing library services effectively to today’s users. The paper finds that libraries no longer operate in a “come and get it” environment and new ways of outreach are described which ensure that librarians are out amongst their communities, creating an awareness of the services available and ensuring effective use of resources through a variety of approaches used in university libraries in Australia and at McGill University in Montreal, Canada. This paper provides useful information on the changes occurring in the information
environment and ways of marketing library services effectively to today’s users.

Kumbar et al. (2007)⁸⁹ “Use of Periodical Literature in the University of Agricultural Sciences Daharwad: A Case Study” examined the extent of use of periodical literature by agriculture scientists and found that most of the users considered print journals as better version than electronic journals, as 74.36% chosen print journals and 25.64% opted for electronic version.

Margam Madhusudhan (2007)⁹⁰ has examined the use of internet among the research scholars of the Central Science Library (CSL), University of Delhi. The prime objective is to find out the current trends in information search through internet by the research scholars and type of problems faced by them in their research work. The study finds that Boolean logic, truncation and wildcards are the most often used search techniques, web directories, while subject gateways are least used navigational tools, and the researches are beset with the problems of inadequate computers with internet facilities, slow internet connection and lack of skills and training. This is the first comprehensive study of the use of the internet by the University of Delhi science research scholars. Its findings should help CSL, University of Delhi in its plans and programmes related to effective and efficient use of internet to fulfill
information requirements of the research scholars and also proposes proper internet searching training to research scholars to keep up-to-date on harnessing the immense potential of the internet as a source of information for their research work.

Boissy, R et al., (2007) present an informative overview of the changes in journal publishing and subscription management from mid 1990’s through mid 2000’s. The authors devote the first half of the article to discussing how publishers and subscription agents handled pricing of print journals. The second half focuses on those two parties’ practices of managing electronic journals.

Hernon, P et al., (2007) examine the possible cessation of print journals from different perspectives. For librarians, an electronic-only journal environment would lead to questions about perpetual access, faculty’s reaction, and a subscription agent’s role. For authors and readers, there would be concerns over the integrity of published works, the change in citation rates, and reliable and affordable access. Publishers, on the other hand, would have to consider authors’ and subscribers’ reactions as well as journal branding. The author also discusses various issues involved in archiving electronic journals. In conclusion, she states: “If we want to end print, we must have bullet-
proof digital archiving of electronic journals. We are making progress, but there are many, many issues still to be settle

Johnson, R.K and Luther, J (2007)\textsuperscript{93} examine the issues associated with moves toward electronic-only publication of journals, based on interviews with academic librarians and journal publishers. Noting that publishers and libraries today find themselves in an extended transition zone between print-only and e-only journals, the report investigates forces driving change for libraries and publishers, particularly financial exigencies and user expectations. Just as libraries are straining under the burden of subscribing to dual formats, publisher financial statements also reflect the additive effect of producing dual formats. However, the responsibilities of the library to support users and provide long-term access can act as brakes on the transition to e-only journals and a move to e-only entails adjustments to a publisher's marketing and production operations as well as cultural adjustments to the online publishing environment. As these adjustments are made, the report concludes that the role of the printed journal in the institutional marketplace faces a steep decline in the coming 5 to 10 years. Issues emerging from this study suggest the need for a fuller examination of and response to obstacles impeding the transition of journal articles fully into the digital networked environment, including: (1) New business models;
(2) User expectations; (3) Publisher success stories; (4) Library success stories; (5) Preservation; and (6) Version of record.

**Chinnasamy K et al. (2008)** made a survey on the usage of electronic resource by management students of Jansons School of Business, Coimbatore. They also studied the impact of electronic resources on the academic work. The study reported that the students used electronic resources for academic and the frequency of use was very high.

**Gopalakrishnan et al. (2008)** “Information Use Pattern by the Academicians: A Case Study of NIFT Centres in India”. A survey was conducted to examine the information needs and information use pattern of the academicians of seven institutes of fashion technology in India. Authors suggested having functional and effective collection development programme to meet information needs of users and need to popularize the less used services to ensure their optimum utilization, conduct regular user education programmes, acquire both print and non-print material, move towards digitalization, etc.

**Jacqueline Borin and Hua Ji (2008)** have analysed that currently there is a need for an updated assessment model that addresses and reflects the ongoing diversity of issues related to collection
evaluation in academic libraries. The purpose of this paper is to provide conceptual guidelines and a model to support collection evaluation and assessment in this time of unstable and constantly changing patterns of information. This paper bridges two different collection evaluation models, collection-based and user-based. It provides a different perspective to a body of literature that is mostly best practice-based. The new model suggested here addresses a current need generated by a changing information environment. It adds a new approach to the body of literature in the area of collection evaluation.

**Lakan (2008)**97 “Availability and Utilization of Electronic Information Databases by Staff of the Agricultural Complex.

**Pertti Vakkari (2008)**98 explored how the use of electronic information resources had influenced scholars’ opinion of their work, and how this connected to their publication productivity. The data consisted of a nationwide web-based survey of the end-users of FinElib, the Finnish Electronic Library, at all universities in Finland. Scholars felt that the use of electronic literature had improved their work considerably in several ways. This influence could be differentiated into two dimensions. The first one was improved accessibility and availability of literature, and the second was more directly related to the content and quality of scholarly work. The more direct influence of e-resources use
on the content of scholarly work was, however, not associated with publication productivity. The results seemed to imply that investments in academic digital libraries were beneficial for researchers and for the universities.

Selwyn, Neil (2008) has addressed students’ engagement with the internet as a source of academic information for their studies. In particular the article explored how academic information for their studies. In particular the article explored how academic use of the internet is patterned by a range of potential influences such as students’ wide internet use, access and expertise, their year of study, gender, age ethnic and educational background. Analysis of these data suggested that students’ academic internet use is most strongly patterned along the lines of gender and subject-specialisation rather than other individual characteristics or differences in technology or expertise.

Nelson, M.R (2008) looks at some of the hype and the reality of e-books in higher education. An e-book is an electronic book that can be read digitally on a computer screen, a special e-book reader, a personal digital assistant (PDA), or even a mobile phone. In other words, e-books are consumed on a screen rather than on paper. However, underlying this simple and seemingly obvious definition are some important distinctions that may make an e-book something other than just a "PDF
version of the printed book.” These differences lie in the electronic nature of e-books, which are changing the nature of what a "book" is within an electronic context. Higher education is expected to be at the forefront of the wave of e-book adoption over the next two years. Some experts predict that 2007-2009 will be transition years for the higher education e-book market, with large growth expected in both digital textbooks and digital library collections. Publishers and campuses alike are exploring the use of e-books and other forms of digital content. Such explorations in the educational markets may signal a tipping point in e-book usage on college campuses from occasional oddity to a mainstream technology in less than five years.

Gowda and Shivalingaiah (2009) conducted a study under title “Attitude of Research Scholars towards Electronic Information Resources: A Survey of University Libraries in Karnataka” to examine the preference of research scholars towards print and electronic resources and effectiveness of usage of e-resources among users. Nearly 58.12% respondents indicated their preference towards print resources over electronic resources. The preferences of users depended upon the nature of resources available in libraries, while usage of electronic resources depended upon the type of IT infrastructure available in libraries.
Mahesh, G et al. (2009) have identified the modes of digital content creation for digital libraries and discuss the associated copyright issues with the types of digital content. Prevalent copyright laws in India in the context of digital content have been studied and issues related to specific types of digital content have been discussed. In addition to two known types of digital content, namely born digital and turned digital, a third type, gained digital has been delineated. It is found that extant copyright laws, particularly in India, allow scope for forming opinions with regard to digital content thereby giving room for insecurity for digital content creators. Copyright laws in the context of World Intellectual Property Organization and India only have been discussed. The paper will be useful to digital content creators and digital library managers/administrators to understand copyright issues relevant to the digital library. The classification of digital libraries based on content as has been delineated in this paper is an original work and has reported for the first time. The linking of digital content with the copyright issues makes it useful.

Shashi P Singh (2009) stated that power point presentations were used in a demonstration to explain how to use various types of e-resources and databases, both subscribed and in the public domain. Based on the feedback analysis, it was found that instruction materials
was useful (94.90%), 88.47% respondents are now better prepared to use e-resources and WWW services and 92.80% of respondents agreed that the programs were suitable for their information needs. Regarding the post-program awareness of e-sources, 94.01% of respondents agree that they are now more aware. An information literacy skills demonstration package was prepared for regular use with faculty members, research scholars and post graduate students to make them competent to find access and use information more efficiently. This would fulfill the aim of developing individuals’ intellectual capabilities of independent and lifelong learning.

**Sudharma Haridasan and Majid Khan (2009)** have analysed 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. It also attempts to find out the users’ views about computer literacy among the social scientists. The major findings of the study indicate that respondents are aware of the e-resources. Large number of research scholars and faculty members are using these e-
resources for their research work. Many faculty members strongly agreed with the necessity for computer and internet literacy to access information. A majority of users were satisfied with the e-resources available at the NASSDOC library. This is one of the first survey conducted to identify the need and importance of e-resources in a specific Indian library (NASSDOC) as well as the requirement for information literacy to enhance the use of available resources in the social sciences. It should pave the way to show the value of such e-resources for scholarly research in India.

Swain Dilip K and Panda K C (2009) in their study entitled”Use of electronic resources in business school libraries of an Indian state: A study of librarians opinion”, looked at the prolific growth of electronic resources during the last decade. This survey attempts to measure the quantum of e-resources accessed in the academic ambience Business School Libraries in Orissa (India). Furthermore, the study aims to highlight problems and constraints faced by the information professionals in accessing e-resources and delivering electronic information services with some constructive suggestions and remedial measures for the ensuing bottle-neck. The paper highlights the availability of e-sources and critically examines the quantum of their use in Business School Libraries of Orissa and the crucial role played by the
information professionals in providing electronic information services to users through the findings based on responses from structured questionnaires. The SPSS package is used for the analysis of data. The paper arrives at the conclusion that the internet-based e-resources are being well used compared with CD-ROM databases. Premier web search options like Google and Yahoo! Are the most frequently used search engines, while the other searching options are less used. Availability of some key online databases is exclusively confined to only a selected few B-school libraries of the State.

Sudha, S.T and Harinarayanan N.S (2009)\textsuperscript{106} Use of e-resources by professional and non professional College students and its optimum utilization level of satisfaction derived and the problems encountered while browsing information and felt fairly better satisfaction by suing E-Resources to support their academic and research activities.

Tahir, Mohammed, et al. (2010)\textsuperscript{107} have assessed the use of electronic information resources and facilities by humanities scholars at the universities of Punjab, Lahore, Pakistan. The humanities still stick to the printed information sources but they pay good attention to electronic sources. Most of them have access to computer and internet at office and home. Keeping in view the positive trend of the humanities towards modern technology, universities and libraries should give more funding
to provide electronic resources and facilities in the arts and humanities disciplines. Special training programme for faculty of humanities should be organized. This is the first study on this topic in Pakistan. The results can be useful to design services and facilities in humanities and libraries and information centers in Pakistan and other developing countries.

**CRITICAL REVIEW**

The majority of the study focuses on the use of internet in academic institutions. The survey method was adopted for the study and random sampling techniques were used to select the sample for the study. Multivariate analysis, regression and correlation analysis were used to analyse the data. The review of related literature of both Indian and foreign studies has revealed that very few attempts have been made to study e-resource usage among University teachers and research scholars. Hence, the researcher has made an attempt to study the “Impact of e-resources and User Perception in Professional Education: A Study on Puducherry region”.
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