CHAPTER – 2

REVIEW OF LITERATURE

The study has included Reviews of literature of more than 80 research articles, books; seminar and conference papers and reports search through various modes of learning with the help of search engines. There are literature which focuses on economic, access, legitimacy and instant instruction. E-journals may be integrating part of scholarly process. E-journals may more dynamic instructions than print journals. The peer-review process engine reliability and indexing resources. There have been three factors, i.e. economic, space and access. There has been continuous growth in e-journals. The emergence of technology and its change support the increasing frequency of e-journals over print counterparts e-journals are hardly translated in print journals while reverse process is easy.

The other difficulty is indexing of e-journals as these not always follow the rules of traditional publications. Majority of e-journals are also not included in the standard scholarly indexes and virtually unavailable to scholarly research because of their uncertainly permanence in academic world. There are many issues relating to use and unused of e-journals:

(i) Availability not permanent,
(ii) Full text searching is not ensured,
(iii) Access ability and stability problem,
(iv) Cost effectiveness,
(v) Text maturity and authority issue, speed of publication,
(vi) Article Length,
(vii) Media and hyperlink issue,
(viii) Lack of standardization,
(ix) Citation issue,
(x) Quality,
(xi) Permanence,
(xii) Indexing and abstracting coverage.

The majority of journals are intellectually and technologically valuable and such journals are scholarly journals published by reputed publishers. They have newness and updated with information. The important issues are as under:

(i) Two decades before there was no interaction between the publishers, authors and the users. What publisher published has a gap for library. Electronic publishers removed this problem by online publishing.

(ii) The publishers in print field started to produce electronic version of existing print journals and charge print based fee for electronic version or site licences which are more expensive than the equivalent print version. Moreover, the conversion of print journal in electronic version seems to be high, which effected the budget of the library.

(iii) It was also observed that electronic journal was more costly than print journals because of the infrastructure expenditures. The main reason was that the data published in journal would be acquire as digital data and its collection and dissemination could be more costly than print.

(iv) There are many factors which determine the price of e-journals. These are(1) Production cost (2) Frequency of journal (3) Pages (4) Illustrations (5) Different users, (6) Different libraries (7) Different publishers (8) Exchange rate (9) Circulation statistics. All these factors effect the production and marketing of scholarly journals.
(v) The charges of electronic journals are higher than print journals. Publisher use software to convert print journal to electronic journal. (Software Adobe Acrobat) such softwares are capable to provide proper production mathematically and statistically.

(vi) There may be few e-journals of lower quality than print journals and not preferred for reading.

(vii) Traditional resources are durable and contents cannot be changed. While the content and the resource can be vulnerable to alternation and data log users may trace the originality of traditional resource but it is not possible for e-resources. E-resources may be preserved for further generation, if it ensure that software and hardware will not change over a time. Electronic record may be migrated if new hardware and softwares are developed and read ability is to keep up with the technological advances, otherwise the e-resources can be read after a span of 20 years.

(viii) Electronic journal also face archival problem. It has been a consideration before the libraries to decide which journals are to be preserved. Some persons have the opinion that e-journals will be accepted widely until are resolved.

(ix) There is a issue whether the library should include e-journals in bibliographical record as it find difficulty in cataloguing. Electronic journals are gaining reliability but being financial and technical skills. Print journals are portable and facilitating its use without any limit to location and time and by anybody. But it is not possible without infrastructure. Print journals have smooth and usable without any restriction. E-journals are consulted on monitor like technical job, which discourage reading habits.
No doubt that the electronic environment and electronic library enforcing organizational change and also change in infrastructure and put the library in a challengeable position in the field of library management. These challenges are accepted because of information technology strongly and effectively providing right information at right time and at right place.

**Millson-Martula C. (1988)**. The author described that rationalization of books in sizeable literature has been considered in collection Management. There have been few studies on e-journals and their use and the impact of online journals on the use of print collection. The author reviewed the purpose and methods of journal used studied. He discussed the importance of more effect as use factors for retention and deselection decisions and the low use.

**Garfield, E. (1990)**. The author discussed the selection process of journals and application of theory of Thomson Renters in promoting communication coverage of world’s most influential and retrospective information retrieval needs. The author analysed the demand of journals and found that 50% of citations generated by collection came from 300 journals top 300 journals produced 30% quality articles published. But this component is changeable and changes constantly reflecting the evaluation of scholarly topics.

**Milna D. and Tiffany B. (1991)**. The author reviewed and found that the importance of weight for retention or deselection decisions have varied considerably and low use ranging from zero to four per year. On the other hand the authors pointed out that reshelving count under estimated overall usage in case of monitoring of serial usage. It is because many users reshelved issues. But this method missed browsing and scanning uses which may account for three quarters of all journal use.
Sosteric, Mika (1996). The author examines the economy of scholarly publications and discussed individual electronic scholarly publication projects which have become challenge to publishing houses. The author suggested some ways which have responded publishers. The new technologies and its continuous emergence has posed a threat to scholarly publication system and its funding. It was also a warning about the intellectual fallout of a move away from collectively funded scholarly communication project.

Joshwick, K.E. and stierman, J.K. (1997) discussed factors responsible for the use of e-journals. He enumerated three factors, i.e. cost, convenience and time which are considered to be users decision to obtain journal articles. Library users were able to print articles retrieval online at no charge. Users also spent on photocopying articles from print journals. The hidden printing cost does not absorbs photocopying cost. The printing of online journals and its archiving savers time and convenient to users. The remote accessing to databases has been on advantages of any point access.

Milton, S. (1998). He examined the full text on CD-ROM have generally measured use by undergraduate students of Eastern Washington University, which experienced a significant decrease in inter library loan. It correlated with introduction of full text CD-ROM databases and a concurrent decrease in print material use Milton further discussed the importance of Full text databases but more about quality of information, author creditability and subject validity.

Murphy and Greenwood (1998) stated that young faculty members have significantly showed confidence in seniors in the use of computers in teaching. Computers help in higher studies through information computer technology. He further mentioned the task can lead to greater regular efforts. He concluded that
users should be encouraged to increase their computer skills. It is argued that we all have different style of learning and approach learning in different ways. Although this would seem self-evident, attempts to theories and classify such learning styles are less than convincing. A person have one particular learning style but use different learning styles and different intelligences in different contexts, different subjects and in different knowledge domains and in response to different learning aims and goals. He might use a different style for solving a quick problem – say how to use Skype for my podcast – than for learning German.

**Veen (1998)** described that the lack of initial training of faculty was a serious obstacle to ICT use and implementation. He suggested for more serious training of information computer technology and enhance their ability to teach and guide with the help of e-learning tools. He further mentioned that the academic experience at personal level and adopt technology to increase their efficiency and by applying mental energy providing learning opportunities to students.

**Ascroft, L. and Langdon, C. (1999)**. Modern College and University libraries house printed books and journals and electronic resources. Both type of documents are acquired, retrieval and delivered on demand. The diversified change in information and knowledge technology increase the scholarly e-resources. To implement a new paradigm for automation of service of library is essential for academic achievements. There are difference of opinion about the use of computers as incompatible with traditional requirement of teaching within the potential improvement through computer technology. Print resources are important for information. They are selected and involves current information and updated from time to time by not immediately as it takes time to publish updated journal on a particular date or period. There are experts who prepare information, modify the
previous information or create new information and present it in physical form of electronic journals. Print resources are reliable and can be produced in physical form. Selected or scholarly journals are the choice of a good library. It is always published by a reputed publisher. These are also reviewed by reviewer or experts. The print journals are supposed to be fair and accurate as they influence the reader and attract them for scholarly information.

Mckey (2000) indicated that in an online environment the total student experience needs to be considered and describes the infrastructure support required as having four levels.

The administration would be provide in accordance with an agreed service level agreement, which ensured a customer care focus was maintained at all times.

Simon, E.J. (2001) stressed on the importance of resources, their feasibility. Resources should be readily accessible for use. Before internet traditional resources played significant role in learning and teaching but these print resources were no easily accessible to all. They were also expensive. One leader can read one book at one time. If there are two readers, it will need two books at a time. On the other hand if we have electronic version of the book, it may be accessed simultaneously by many at one time. In the modern ICT era e-books and e-journals have become inevitable and needed to convert the print version into electronic version. Each associated and unit libraries have specialized collection, such as library of Faculty of music and Fine Arts have a collection of more than 1800 gramophone records along with audio-video cassettes. The South Campus library have a specialized collection of Plant Molecular Biology, Biochemistry, Biophysics, Microbiology and operational research. Moreover, the Central Science Library of Campus has specialised of Ambedkar Centre for Biomedical Research and Department of Agro Chemical and Pest Management have developed an its
unit of women studied and development centre and no-collegiate women’s education Board.

**Schmerizer (2001)** stated that Deans and Heads are considered as technology leader and their experience has been proved to be helpful to develop an understanding how technology can be improved, which may be helpful to teachers in their instructions in classrooms. Further discussed that the vision and adequate planning of leader are necessity to achieve aims and objectives. The information communication technology has contributed in effective teaching and Learning and the behavior. This could be possible through e-learning implementation in Universities. The tools and the processes to access, retrieve, store, organize, manipulate, produce, present and exchange information by electronic and other automated means. These include hardware, software and telecommunications in the forms of personal computers, scanners, digital cameras, phones, faxes, modems, CD and DVD players and recorders.

**Ertmer et al. (2002)** stated the role of the leader of the school, i.e. Principal who could play an important role in facilitating the use of technology in schools. He highlighted the developments in professional skills in teachers. Conversation has gained more importance and focus on hardware as well as infrastructure. He discussed that teachers are now participating in variety of professional development activities but it can be more effective if professional training is provide to teachers.

**Dilevko, J. and Gottiele, L. (2002)** described the importance techniques and methodology that it can be more effective with experience and reliability and give best results. The author discussed the role of librarian and his best practices on library environment. He further discussed the contribution of information
technology in the perspective of best practices in librarianship. There is continuous expansion of electronic publication and proliferation of electronic resources which needed control and joint efforts to collect e-resources and provide its services via package have their own sharing e-resources. Many libraries have their own network at local level and also national level ant served the users through collaboration partnership in the form of consortia. The consortium purpose is not mere limited to sharing the resources, but also to establish a consortium at national level for Indian academic libraries. Library cooperation is new phenomena but consortia is stills ascent stage and speedy grew during last decade. It has been accepted and renewed in all library sections. Library consortia is a group of libraries, who agree to pull all their resources by allowing its access jointly and to all other institutions either through ILL or borrowing privileges.

Jeevan, V.K. J. (2002) described the used of information resources. He examined the issue to use of information resources by professionals and non-professionals among the University students. The author further observed of users. Male and Female using information resources and their level of professional and non-professional for use information resources.

Digital Library Federation (2002). It the report of federation necessary focus has been put on electronic resources particularly on evaluation of e-resources after purchase. Librarians and the leaders are facing challenges for collection development. Librarians are need to be careful and should not compare statistics from one time to frame with other time frame drawn. Every formats differ in standards from time to time and measuring use across all the formats in which the information is accessed.

He explores the usefulness of e-journals and usage statistics. He developed three metrics and three benchmarks based on those metrics which assess the value of print journals and further transformed to address and completely new area of application, evaluation of potential purchases. The benchmarks, metrics and statistics developed, provides a framework for assessing both current collection of e-journals.

Montgomery, Caral Hanson (2002) discussed the comparison of print with electronic journals collection and user related cost. He gave a detail account of Drexel University library which was funded by U.S. Institute of Museum and Library services. The fund was provided to study the impact of a library’s shift to e-journals on staff and costs. A comparative analysis was made and developed a model for use by the libraries. The study findings were that e-journals are more cost effective on a per use basis. E-journals were widely accepted and extensively used. Although a large number of other terms are in vogue – information portals, super portals, vortais, hubs, network, directories, digital libraries, virtual libraries, and clearing houses. These terms all refer to a single access point or website to which users can go for particular information, and sometimes, as well, for a range of other services such as news, weather information, and discussion forums.

Tenopir, Caral (2002) discussed that many studies have been conducted about the feeling of users about print and electronic resources. The council summaries and analysed more than 200 publications focusing on use of electronic library resources. He discussed variety of research methods applied, i.e. observation, interviews, experiments and transaction log analysis. He concluded that faculty and students prefer electronic resources, print is still used for reading in certain discipline, Books have been more popular in print media. Most e-journal user still printout articles, subject experts use hyperlinks to view related articles,
personal subscription continued to decrease, students use internet more etc. Moreover, students bring web searching habits to their use of electronic scholarly materials and find difficulty in adopting many information resources, interfaces and search systems.

**Melgbza, Dauline and Mennel, Pamela A. (2002)** discussed the unrestricted to users in academic libraries through internet and widespread availability of full text e-resources and print resources offered for their studies and researches. But the wide area of knowledge and its availability has put the libraries to guess the reliability and validity. He also discussed the priorities and preferences of users regarding e-resources, their selection criteria. Questionnaires were distributed and data collected and analysis viewed the research and curriculum need and adequately of resources. The Centre is keeping pace with new technologies joined quite few national level consortia. The University has also approved a policy decision for e-journal collection development in order to provide efficient services to the users with their seamless accessibility.

**Montgomery, Carol Hansen (2002)** described that the Draxel University decided to analyse and evaluate the impact of e-journals, their cost on staff and the use. A comparative study was conducted and develop a model for the better performance of the library and the increase in using the e-journals. It was found that storage cost was low and considerable which has also encouraged the widely use of electronic journals. One more technology “Gopher technology has supplemented by WWW and attracted the librarians and researchers, which could made publications without intermediaries of communicable field. The publication created through World Wide Web was qualitative and promising. The new journals were not so accepted and popularized that impressed users, because of
many limitations of computer and timeliness. On the other hand, authors were interested to publish their articles in new journals.

**Gupta, Deep Raj (2002)** discussed microforms, their treatment and storage process in various public and government institutions and libraries. They promote biological attack and various other kinds of image degradation. The author further discuss various apparatus, equipments and procedures and services to indentify the extent and nature of the problem.

This approach is generally applied in business and industries. The other main research approach is qualitative. It involves subjective approach, subjective assessment of opinion, behavior and attitude. It generates results either in non-quantitative form or which is no rigorous quantitative analysis, for example group discussion, project techniques and depth interviews.

**Jordon, Jay (2002)** discussed in digital libraries for OCLC and cooperation efforts and participated at international level. During last decade there have been tremendous change in library services and activities and also as a profession libraries found them instability but they should not feel insecurity. There is tremendous proliferation of e-publishing and thus knowledge which required necessary dissemination and retrieving and provide the information needed by the users. Digital libraries are able to allow quick and right information at any time and at any location.Slowly we are discovering – or rather learners are discovering new uses of the technologies for learning. Instant messaging, file sharing, social networking. And of course blogging. A growing number of reports have documented how the so called net generation uses computers in their everyday life. Moral panics have emerged about the amount of time spent in front of the computer and the dangers to open internet access. As so often happens when
confronted with something new, the reaction of the education systems is to control and to ban it. Young people are told to turn off their mobile phones to go into their lessons on communication.

But it is not just the appeal of communication which is drawing young people to these technologies. It is the ability to create, to share ideas, to join groups, to publish – create their own identities which constitute the power and the attraction of the Internet for young people.

Raza, Mossom, M. and Eqbal, Monawwar (2003) described the era of development in the field of electronic journals. In digital environment e-journals are made available free of encharge. There are many issues to be considered while retaining e-journals, which can be resolved with the cooperation and collaboration of publishers, librarians and vendors of e-journals.

Wilsen, Jane and Bennett, Moya (2003) discussed the South thawes library and information service and its various programmes and projects organized in 2002 for the access to electronic journals for National Health Services users in South East of England. He further discussed the problem faced in processing the projects. He also discussed disparity faced in the accessibility, I.T. infrastructure and lack of central purchasing. He presented an approach and solutions to easy accessibility and centralized gateway to maintain consistency of access the print and electronic resources. The publication of journals has been limited to avoid more cost. Print publication has created space problem and becoming more costly and moreover, to took publishing delay and so information was never current. The automation has changed the cycle of publication from print to electronic due to computer processing and telecommunication. A book or the journals are to be accessed by users. Technology continued to improve rapidly and introduction of optical Disc Technology (CD-ROM), as a storage medium, networking development in
hardware and software linked with person computer File Transfer Protocols (FTP) to transfer file on networked computers and web browsing and Microsoft internet explorer, have revolutionized information access to latest information.

Aghoola, A.K. (2003) discussed the process and standard of preparation of academic lectures for the instructions of e-learning at the Islamic University, Malaysia. In his survey the response rate was 98% of respondents. The findings revealed that e-learning training has been significantly predicted for training confidence and reliable and its adoption to class teaching by faculty. There are two important influences of e-learning training i.e. readiness and adoption. Libraries also consider the change as what and which e-journals should be acquired to their potential users. The information used through various medias and tools, i.e. web, personal computers, cellphones, blackberries, iPods, PDA and other portal information and communication devices. Print collection has groven so much that it was the main collection of the library but its growth had inefficiency in growth and escalating cost. But it was a question how can information can be packages and distributed to distribute it to the needy users. The publication growth was multidimensional and its packages are distributed. The growth of literature grew in complex fashion.

Natrajan, M. (2003) described the importance of e-resources and their significant role in the present environment of information and communication technology. The author highlighted the main issues of electronic resources. He further described the concept and meaning of e-resources as they are useful and providing access to information. Electronic resources. He concluded that issues and challenges of e-resources and their access is faced by the librarians. As a result, an e-learning system can important knowledge packages (i.e. collection of learning objects described through the knowledge packaging format), interpret the rules
included in them, and present different knowledge routes to each learner, according to his/her profile, thus facilitating personalized learning. Moreover, adaptive knowledge packages (i.e. adaptive learning material) can be easily interchanged and re-used across different e-learning applications and services, thus promoting on-demand, personalized learning.

Verma, Rekha (2003). He discussed the need of e-learning and e-resources and their advantages to meet the needs of the users. Further described the rendering of services through e-resources to the academic community. In modern libraries e-resources has become popular, easy to access, easy to use and also reliable. It is significant to search relevant information in a time frame for the informational professionals, researchers and scientists. E-resources are more useful because of their easy, accessibility. He concluded with need of users awareness about utility of resources.

Anderson, Jonathan (2004) discussed the ways of challenges and issues. Information Technology has changed our life. In schools learning and teaching is imported with help of information and communication technology. I.T. has developed the potentially of the teachers and e-resources improved their skills and professional competency of teachers.

A practical solution to the problem of too much information is the emergence of global gateways to online knowledge networks in particular fields. These global gateways might be more familiarly known as web portals. Whatever the term used, global gateways provide a necessary filter to help reduce information overload. Even more importantly, the filtered information has been evaluated before placement, and often links to sources and resources are accompanied by brief descriptions or annotations. Like the rapid growth in
information, the number of web portals has similarly increased markedly in recent years.

COX, J. (2004) discussed various issues relating to online and use of electronic books viable over the long term in the academic environment and to build strong research collection and providing high level services to users. He further described the usage, elements and trends of e-books and managing it in academic libraries. Both users and information professionals access e-books and access and update their knowledge and research. Electronic resources have many benefits, i.e. storage, reduce maintenance cost and reducing staff. The most important is the acquiring the value added resources and their optimum use. The other effort is to engage the skilled or professional staff. There efforts are computer literacy, development of middleware for searching and access of information. During the last five years University have transformed their sources to e-resources and developing e-service to meet the users need. Universities are producing e-publications through faculty and scientists and more dynamic interaction with information communication technology.

Sehaffer, Shamma (2004) described the preferential trend of electronic journals from print version. There have been rapid growth of electronic resources available in library most of the information resources are available in both formats: journals, magazine, science etc. Research libraries subscribed both formats of the same source, though the cost was adjusted to library budget. There are other type of users who know the where about of resources of library and where they are kept. They use them without any assistance. They also suggest books and journals not available in library. They use Xerox facilities and study in the department to avoid
noise or phone disturbances. On the other hand many user do not find the library a quite reading place. They prefer to access e-journals and other e-resources.

Librarian known this fact that many users visit library with less frequency because of slow change in library activities. It needs physical configuration of library. Librarians also make survey for the reasons of less visits and think of remedy for betterment and increase in visits. It has been experience that users of science and technology discipline visit more frequently than the users of social science and humanity discipline and they consult more e-resources, particularly e-journals.

**Siebenberg, Tammy R. and Galbraith, Betty (2004)** discussed print and electronic journals and their use in science and technology discipline. He made a survey of Washington state university and the selection criteria adopted by the libraries. The selection and evaluation of e-journals have changed that users have taken more interest in e-journals. It has used the use heavily in comparison with print journals. Though some electronic journals are not used more, but it does not effected the trend of heavy use of electronic journals.

**Dulyani, Taha and Marghalani, Mohammed A. (2004)** described Saudi Academic libraries which have started the use of electronic resources since 1992. He also investigated the changes in e-journals, Bibliographical and fulltext databases and printed journals collection and acquisition of terms of number of titles. He further described the budget, acquisition programmes and cost of e-journals. The author distributed questionnaire distributed in academic libraries in Saudi Aradai. He further analysed the difference of use among print and electronic media, increase and decrease of electronic journals.

**Gierch, S. and Klotz, E.A. (2004)** discussed the impact of information technology and said that web technology and internet has changed the way of
information, its store retrieve and commutative process in libraries. Modern libraries have moved their way towards digital environment and services and improved access to digital resources for the maximum use of the e-resources more attractive and realistic. He further explores the use of e-resources and explain their nature, features, types and accessing requirement. He further discussed the web based services, their popularity, merits and demerits and also the future prospects.

**Franklin, Brinley and Plum, Terry (2004)** stated that open resource models of education field has emerged as a response to prices, high quality learning (including text books). He further discussed the proliferation of e-reader device and the changing trends in publishing electronic products. Educational resources should be open and depend on open contents. Open text books are offered by commercial publishers or available in repositories. Open text books are questionable about their accuracy and reliability of their contents. Text books are designed based on content for courses as per need of the students and course curriculum. The world’s most popular Internet search engine, Google announced (19th February 2004) that it had added a billion pages to its gigantic store of 4.28 billion pages. A problem arising from this growth is how to sift through the enormous number of ‘hits’ that result from most search queries, such as the three and a half million hits for the entry e-learning noted at the beginning of this paper. Not only is the number of hits far too many to look at in a single lifetime but many of the Web pages in Google’s vast database are of dubious quality, or may even have changed location or disappeared since being indexed. For this reason, it is now a recognized convention to indicate in a list of references the date when a website was accessed.
Strouse, R. (2004) discussed learning process and the impact of technologies. E-learning is referred to international use of networked information and I.C.T. in teaching and learning. E-learning means online learning. It is also known with other terms like virtual learning, distributing learning, networked learning and web-based learning. Electronic learning involves all educational activities carried out by a group or the individual working online or offline.


In essence, the factors to support the total student experience of the learner for an online module need to be considered long before the learner embarks on a course of study. The materials themselves also need to be developed long before the learner enrolls. The tutor therefore needs to plan ahead and have materials ready for the end of the learner’s programme of study even before they start on day one. Indeed, many of the traditional processes that an academic has undertaken need to be reconsidered. Rather than being a deliver of learning, the academic, e-moderator or a tutor as they are now being called, is a manger of the learner’s experience.

Stasicka, A. and Stemposz, E. (2005). The author described various methods of e-learning and its delivery to users. He identified different types of electronic resources used in e-learning through internet. The author further described the future of electronic learning and the computer application. He gave a detailed list of companies serving e-learning activities.
Ali, Naushad (2005) described the information services provided by IIT Delhi library to its users. The survey was made, Questionnaire issued and data analysed and covered information services and resources. He also described facilities of searching, acquisition and acquaintance with e-journals and the purpose of using e-journals. He discussed related problems of accessing, i.e. lack of printing facilities, shortage of terminals, lack of skilled staff and limited hours. He found that 60% users face such problems. He suggested for more improvement of information services and the serious consideration of users need and their requirement.

Johry, Nutan (2005) discussed indexing services and its importance in library services. He described the library indexing services as an important discipline. It guide the user to search or locate the documents. The author evaluated major indexing services in the field of social sciences. He concluded that the indexes should be organized as a database.

Kumbhar, Rajshekhar D. (2005) described that librarian generally does not marketed the products. There is more need to aware the public about the products and the objectives they need. Marketing and TQM (Totally quality Management) are interlinked and make the products more valuable. TQM involves the customers need whether the products and services are according to customers expectations. The TQM enable a library to evaluate the quality and usefulness of library service.

Sadeh, Tomar and Ellingsen, Mark (2005) discuss an overview position of standards of electronic resource management. The author further explained the rapid growth in the quantity of electronic resource and various complexities in managing electronic collection building in libraries. He further described the e-resource management initiatives to develop e-resource management to make it a
decision making system. He also developed a mechanism to standardize the collection management. He felt need of a collaboration among vendors and customers and combined efforts of standards and industry initiatives to built a standard system design which can meet the changing requirement of electronic resources.

Jena, Shashi Kanta (2006) described the wide area of national library. It has many discussion of consider and effect of electronic acquisition of their organizational structure. He analysed the status of CD-ROM and the discouraging print documents. He made a complex calculation with various overlapping categories considered. It can be take a variety of forms, its size, structure and nature of the library. In the beginning there was a challenge before the publisher how to migrate print journals to e-journals. As electronic environment is more dominating, it started to serve the journals in CD-ROM product. It became very popular quickly. Search engines were created to locate the e-journals. Infact more and users need more and more data electronically for their studies and research. Print products were scanned and put on service electronically. Scanned data was converted to bitmapped images. Though this work was complex to put the product in electronic characters. The reasons behind the increased demand of users was mainly due to many issues:

(i) It give quick access and can be read at office desk
(ii) These are cheaper if infrastructure is properly established.
(iii) It saves paper products and publishers money.
(iv) They are more current and many be updated at hand.
(v) They are just-in-case and just-in-time.
Feether, C. (2006) described accessing and preserving of information as an old function of a library and information centres. Electronic resources provide viable solutions to library problems like easy access, preservation methods, large storage medias and minimum space with multimedia documents and remote access to information collection. He defined information resources, print or e-print which satisfied the information need of the users through internet. There is a human nature that the thing which its more costly, is exploited to the most of achieve maximum benefit. Getting the most from e-journals which is fairly costly. If user is aware about the journals related to his studies, there is hardly and need of any awareness programmes. In large university libraries few users are supposed to require information of e-journals of their subject for which an awareness programme is organized by the library or efforts are made by marketing group of publisher. The publishers have a network of experts to aware the library and users to aware them about their products. It is their marketing strategy.

While evaluating marketing trend about e-journals and efforts of library to increase their use and encouraging and motivating the users, it has been the result that information seeking behavior of users has been changing dramatically in the electronic age. University libraries have not adopted electronic based product services and more users are still search for print version to obtain their relevant information. Librarians also experience that users are still prefer electronic version and desire for electronic access for information retrieval behavior.

There is economic pressure before the libraries to direct shift from print version journal subscription to electronic journals and databases. Print journals have low priority than the past because of availability of e-journals and low cost. The budget has been shifted to electronic products. There have been many reasons
of rapid transition from print to e-journals and the market policy of increasing the electronic products for better future of libraries and the users.

**I.I.T., Delhi (2006).** The institute organized workshop organized and conducted by central library, IIT, Bombay and sponsored by INDEST – AICTE consortium. The objective was to alert the participants on IPR issues and usage of e-resources. Libraries are providing access to e-books and journals with consideration of space of time. Library professional in creating the information and providing services. The workshop covered e-collection, e-library, e-thesis and e-dissertations.

**Hibbetts, Bernard (2006)** discussed the future of legal e-periodicals and the internet use. The author made a challenge that electronic journals in legal low discipline have an important role to play. Internet offer network services and enrich e-publishing and legal learning through legal e-journals.

**Famunmi, B.A. and Paris, Mathew (2006)** described the concept and meaning of digitalization its purpose and performance. He further discussed communication theories and illustration cited. Digitalization is a process of converting print documents in the digital form and preserve them. Many challenges are faced in process which are to be redressed like human problems, technical problems. The author concluded with the remark that digitalization is an essential in modern education system.

**Banks Julie and Procht, Carl (2007).** The author interviewed three editors of electronic journals and five emerald group and discussed various problems and issues pertaining to the electronic journals. He also defined peer reviewed journal articles, the role and responsibility of editors and their work performance. The role
of editorial board and the formation of editorial board was also discussed. He also highlighted the topics of interest for publication in future issues. The mechanism of publication was also explained without any consideration of formats. Electronic, if once indexed on CD-ROM and then on web, full text databases are ready for use with the help of indexing and abstracting vendors also demonstrate the specific part of the article in databased created them to highlight the specific features of e-journals to attract the readers to access such databases, specially scholarly, referred and full text journals.

Subscription is an important component or media as it ensure the guarantee of perpetual access to the journals in the databases. Library subscribe database, not an article. Library when cancel subscription to journals, that is database to be cancelled and publisher remove such journals from database and prepare a new agreement for the modified databases for a certain period. Every library has tight budget.

Dhingra, Navjyoti and Mahajan, Preeti (2007) discussed the proliferation of knowledge and e-journals. During last two decades e-journals had rapidly increased and also their use. A survey was made of Punjab University Library and the use of e-journals by the students of the University. The authors also studied the level of use of available e-journals in Punjab University library. The authors concluded with the problems and issues faced by students in using e-journals.

Naidu, G.H.S. and Rajput, Prabhat (2007) discussed the future development of libraries and the direction and trend in digital environment. He further discussed storage facilities at University college Ireland and the impact of digital knowledge products for future development and explore an emerging
intellectual landscape. He described the future of print technology and storage of knowledge. He suggested to discard print product and apply electronic products.

Sathpathy, Sunil Kumar (2007) described the electronic environment. ICT is influencing the work of organization and libraries. Similarly the work of library professionals has been changed. The literature is available in print as well as electronic form. Libraries are facing big challenge in selection of electronic resources as in case of print resources. The author further discussed the concept, print and e-print resources and their differences, merits and demerits.

Chidambaram, Shiva, S. (2008) discussed various resource discovery tools and the experiences made useable of their use in libraries. Further discussed search system to meet the specific need and its improvement. He reviewed the related literature and observation and description of varied software through website. He described various issues and challenges in federation search system and its function in digital world and the users. The use of electronic journals is also depend on the digital technology of searching and publishing and also scholarly behavior. No doubt digital environment had dramatic impact on information seeking and reading pattern of user.

Tenopir and King (2008) has given some facts that:-

(i) Scientists have developed their reading habits of searching and citation.
(ii) They access articles provided by the library.
(iii) The user, particularly of Science and technology field, have broader range of sources of articles and access to all resources of library.
(iv) They also access other resources like author websites.
An article remain in existence for many years and hence old articles are also accessed fairly over the years. The accessing have increased by 6-7 times more.

There are difference tasks to which e-journals were put: (1) Monitoring one’s discipline (2) Teaching and research (3) Different ways of accessing.

Mallikarjun, Dora, Bulu Maharana (2008) discussed open source softwares which created new initiatives and opportunities in the information management. In modern time libraries are largely benefitted by open source software and enrich their libraries and applying them in various activities of the libraries for acquiring, disseminating and organizing information efficiently. He gave basic ideas of open source software and their suitability applying in building institutional depositories, digital contents, websites, library automation and web based services.

Kothayaki, S. (2008) described the role of library in society in electronic environment and its services effected by information technology. Moreover the e-environment will improve the library services and the quality to serve the users. He described some important features of the modern library and the change in its activities. In 21st century libraries are adopting new technology of ICT as its application is playing a vital role in streaming the modern libraries. The author concluded that e-resources are very useful and commonly used.

Sinha, Reeta (2008) described how electronic learning is implementation successfully and dependent on the extent of the needs of the users and a group of users. He further discussed the need and concern of e-learning of various stakeholder group and drives their responsibilities and fulfilling the responsibility
mentioned in stakeholders matrix and this caused the encouraging step of the success of e-learning in higher education.

**Dhanavandan, S. and Esmail, Mohammed S. (2008)** stated the change and challenge faced by libraries relating to print and electronic resources. It is also necessary to libraries in developing countries to participate and contribute in changing environment of knowledge development. ICT has provided many new opportunities to improve their resources and services. The author further discussed ICT tools used by library professional in Tamil Nadu by making analytical study cross tabulated by gender and age.

**Kaur, Balijinder and Verma, Rama (2009)** described the use of e-resources in IIT library, Delhi. The main focus was on users the services and their choice. Moreover, the study was also made on place which the user access information. The author also discussed the preferential issues of print and e-print journals. He distributed questionnaire and collected data and found that the use of e-journals are increasing because of awareness of users. The author further described the need of e-resources and the awareness of users about e-resources and the type of services provided by the library in this direction. Most of the publishers offer print and online access to their journals. Prices vary. There may be free access to print journals. On the other hand an access fee may be for print with online subscription.

**University Library, Maryland (2009)** discussed collection criteria, guidelines for free web-based resources and necessary guidelines for e-publications and protection. He further explained that there is increasing trend of e-resources. It was the academic priority of collection development without and difference of print and e-resources. University libraries formatted guidelines for selection, review, approval and technical process. The necessary issues of licensing, access,
ownership, standards, multimedia, bibliographic, full databases, e-journals, software were also discussed. Internet facilities were increased to meet the needs of the users.

Singh, Rajesh and Jindal, S.C. (2009) discussed the impact of Information Communication Technology on library and information centres. He also described the role of library information centres in the programme of teaching, learning and research. The author enumerated the objectives of various ILP (Information Literacy Programmes), which were carried out by the Delhi University Library System (DULS). The author further described informacy literacy programmes of DULS and discussed its effect on library services and library professionals. The budget of academic institutions is shrinking and many problems have arisen due to shrinking budget and non-availability of electronic resources and libraries are facing problems to fulfill the needs of the users. This has forced the information providers to think new system to meet this situation. They thought of resource sharing programmes particularly in case of electronic journals.

Sharma, Chetam (2009) stated the position of library of Indraprastha University and the use of electronic resources by the user community. He discussed the proper use of library resources. Users have their choice and the library pay attention to the need of the academic community in regard to online resources.

Bajpai, R.P. and Mol, Vidyut K. (2009). Library is an important unit of an organization which provide information to academic community in higher education. But libraries are facing acute problem due to financial crunch and limited resources. In I.T. environment libraries have played a revolutionary function in provide online access facilities through internet. There have been many efforts to avoid much financial problems by establishing institutional repositories
and subscribing consortia to access e-journal based resource sharing programme. These efforts have been boon to academic library.

Jharotia, Anil Kumar (2010). The author discussed new technology i.e. information communication technology and the touch screen technology applied in libraries like 4G wireless system, facial recognition and skin texture analysis, surface computer and tough light etc. He stated that the user can understand the vast development of the I.T. in society by going through these technologies. These are much more helpful to the society. The development of ubiquitous computing may offer new opportunities for the use of ICT for learning.

Secondly – and possibly more important from a didactical point of view – is the embedding of computer based communication within the tools of the workplace. This offers the opportunity to develop learning environments whilst simultaneously accessing and shaping the production and business process through such interfaces.

In other words the context in which learning takes place becomes the context in which the learning is to be applied and the nature of the learning interface – or the learning materials become the occupational tools with which the work process knowledge is carried out. Whilst ubiquitous computing is not yet fully developed, there are a number of pilot activities with the use of mobile devices and with new interfaces to learning and working.

Natrajan, K. (2010) discussed the present development of information technology and its creation and dissemination of e-resources in digital environment, its easy process and preservation. In e-libraries there has been an adoption of electronic form of resources. This movement has changed the attitude e-print form. The librarian, as well as publishers who were managing the process
of information traditionally have developed systems of e-library. E-resources are
digital forms and accepted by majority of scientists for their researchers.

**Chaurasia, Neeraj Kumar (2010)** discussed the importance of books and
said that books are important media of study and learning for human culture.
Libraries are the heart of the organization or institution. Now traditional libraries
are moving towards virtual libraries or so called electronic libraries. The mode of
production process of dissemination and information seeking behavior are
changing rapidly to electronic environment. Publishers have started producing
electronic products, usage of e-books. The author gave an overview of various
factors of e-products including e-books.

**Olle, C. and Borrego, A. (2010)** described the increase of number of electronic
journals in consortia subscribed by academic libraries of catlonia (CBUC). He
further explained the change in information behavior about diversity of resources,
strategy to make the journals uptodate and rendering personised information
service. His findings were that readers access information in large number from
more discipline. Due to complexity of library interface, more use was web tools
search engine. The access of thesis are not easy because it is not easily available.
Most of the thesis are manuscript form and hardly printed as the copyright of thesis
are mainly vested with the researchers or the policies or rules for making the thesis
and availability to outside users are framed by universities and by India
government at national level.

Digital form is always better and beneficial. This is also applicable with
thesis and dissertations as the academic community find it easy to access, easy to
use, easy to retrieval, download and also for dissemination and retrieval of data.
Digital form is benefitted to enhance the use of research process and reach to
evaluate the findings. It also help in pursuing research and easy reach to the conclusion.

Digital version of thesis provide access to contents in more structured way and help the research to search information by accessing resources easily. In fact, thesis are not more accessed because of many restrictions and limitations of their use. But the electronic thesis are open access and can be accessed many times in comparison with print version that are available only inter-library loan. All university libraries and the research institute are making efforts to make the research institutes are making efforts to make the thesis available in electronic form. So, that these may be available more openly and used to the maximum. It needs coordination at University level. It is being done in few countries in systematic manner. There are countries like India where cooperative efforts are being made. The sharing involves legal, copyright or plagiarism issues by the library or the author. It also consider the preservation programme.

The pilot study and the digitalization of abstract of thesis was done by the Kerala Agriculture University in 1988-89 but could not be fully successful due to lack of retrieval efficiency and user friendliness. Many full text of thesis were also digitalized. However, for the last decade all Universities have directed the researchers to submit their thesis and dissertations in soft copy along with print copy. The change and effective transition from print to digital and changed pattern of context management and information delivery has experienced the need of websites for effective information services. The digitalization of thesis has many advantages which the scientists and students felt.

Singh, Vinod Kumar (2010). The author discussed about e-learning effect on society. He described the e-learning platform i.e. software to provide technical
infrastructure through which e-learning activities can take place. Author agree that there is proper definition of e-learning which is University accepted. There are many problems arises when applied e-learning methods. He described six activities of e-learning platforms. The author proposed a visual techniques based on definition. He concluded with applying e-learning for comparing and evaluating its platform.

Sarkar, Barun and Amit Kishore (2011). The author purpose of this article is to find out whether e-print books are replacing print books and influencing e-resources usage. The traditional book publishing is changing rapidly. Electronic publication has taken place of print publishing. He put a question whether print survives or completely put out of market. This UNESCO web portal is additionally valuable in that it provides direct access to the organizations key educational publications in the area of information and communication technologies. All titles may be downloaded in PDF format thus ensuring exact replicas of the original printed books. The following titles, would be of interest to readers of this paper, are freely available to be downloaded in full text to all who have an Internet connection.

Jaiswal, Shikha (2011) described that electronic resources are very important resources of information for modern society globally. Electronic resources have been most popular and preferred by researchers in modern world. He focuses on application of e-resources in digital era and application in modern libraries. He concluded that library and information centres have accepted challenge to adopt electronic resources for access information and develop the library service. He gave stress on need, type and evaluation of electronic resources from time to time. Libraries have accepted the challenge to satisfy their users by
providing current information by browsing digital resources and their favourite titles: use prefer to scan latest the latest issue of print version even when electronic version is available. E-journals are increasing day by day. When electronic journals of print format are available in sufficient number, user prefer electronic journals. On the other hand when favourite journals or titles are not available in electronic form because of licensing barriers.

**Tyagi, Sunil (2011).** He discuss the knowledge and the demand of information in modern society and current need of the users in libraries. A learning process is better if learning is demanded, presented at any place, anywhere and served and delivered at any place to meet the specific requirements of the academic community.

**Vashishtha, Seema (2011)** stated that journals are very important resources of a library. The tremendous increase in ICT have made amazing boost to e-publishing. The much products are published in electronic form and may be made available to users by accessing information through internet and network. During recent decades e-journals have been an immense resource of information. The scholarly publications are being produced in e-print in comparison with print version. These are stored in CD-ROM and can be accessed online. Two decades before the users had to rely totally mostly on print based journals. Print based information resources are less important today but still 52% of researchers find their way to consult print based journals very useful, including current and back volumes in print form. There is more number of users particularly in arts and humanities find print resources useful. The greatest inter disciplinary difference pertain to archive in print or special collection in print. This is because that more efforts have not been made in this discipline.
There have been a practice in the past that users were confined to read in the local or nearly libraries and consulted printed journals for their study and research. But later they used to go outside the premises to consult journal for print and e-print both, if article is not find or available in full text locally. The researcher started pursuing electronically the e-journals because of major implications for collection management policies. The interlibrary lending became simple for accessing articles.

Ali, Naushal and Nisha, Faizul (2011) assessed the awareness and use among researchers of central science library of DU. A survey was made and found that 60% of the library users are using journals for their researchers. Print versions of journals is also used similar to electronic journals. Keywords are most used to search the articles of e-journals by research scholars. The use of data of publication was used minimum. The users faced few problems like slow downloading of PDF.

There are many users who are not aware area e-journals. The value of peer reviewed journals content is an indicator of quality is shared by all participants users are generally preferred peer review journals and make heavy use of them. E-journals is a bunch of articles which are also cited. They also search articles by author and subject within a specific collection. Many prefer PDF version but many criticized them.

Miller, Jade and Khera, Otta (2012) examines the infrastructure of Technology Acceptance Model (TAM). This study is limited to Kenya and Peru digital libraries. The author further explained factors in adoption of digital libraries. The data were analysed to explain all measures of use and usefulness of TAM. The application of TAM was implemented in developing countries guided by local circumstances and specifications. The growing need of e-journals has enhanced the
responsibilities of library professionals. Particularly in software use, proxy server, RFID and web based searching techniques. Faculty use to come library often and library make them aware with latest e-resources and technique to search them. Specialty in faculty does not mean their full awareness effectively and respond appropriately. Libraries take responsibility to provide users with branding articles and e-journals and make licensing more easy.

Publishers give trial to its first article or journal via e-mail. WWW have developed the market links with other resources also. Libraries also seek new ways to communicate users with new e-resources acquired or added to library collection. Library also help users via WWW, electronic references, chat rooms and other interacting ways.

However, users are changing their behavior with the change in search techniques, publication behavior and their role.

Wema, Evans and Manda, Paul (2012) discussed the impact of e-resources usage in academic libraries of Tanzania. Workshops were organized and necessary training was imparted, which was supported by INASP. It gave facilities of providing access and usage of electronic resources. Institutions of Tanzania organized travelling workshops in 2002. A survey was made and review the sampling of activities to identify the skills.

Kaur, Amritpal (2012) examine the academic attitude towards e-journal use. It was a survey and a questionnaire was prepared and distributed to seek the opinion of the users. It was found that the main cause behind the preference was the quick and sharp access to e-journals in comparison with print journal. There preferences are(1) availability at desktop (2) easy convenience (3) remote access (4) time saving (5) available at all time and location (6) interactive features (7)
facility of animation of images (8) inclusion of audio-video material. Other preferences to e-journals over print journals are physical comfort, portability, ability to underline, familiarity with format and ability to browse. The e-journals are mostly used for teaching, learning and writing reports. Moreover electronic journals are also helpful for current awareness, background research and external and internal presentation.

Dhanavandan, S. (2012) discussed the financing conditions of Engineering College libraries. The author surveyed the Engineering Colleges and distributed questionnaire to collect necessary data. He found that the budget was not sufficient to meet the requirement of the users. He also discussed about availability of software of automation of Engineering Colleges. The author found that the automation of colleges was not fully completed and under process.

Nisha, Faizal and Ali, Naushad (2013) examined the e-journals used by users in IIT library, Delhi. He made a survey on access electronic journals among IIT library users and Delhi University users. He found by a survey that use are aware with electronic journals and using them to enhance their knowledge and collecting relevant information for their study and research, publishing research papers. The author highlighted many problems arises in using electronic journals, slow downloading, mechanical defect or lacunas and lack of training and limited access. He suggested to organize orientate programmes and increase the services to access e-journals.

Vashishtha, Seema (2013). E-journals have created new world and electronic environment in the field of information and promotion of libraries for the effective use of sophisticated e-resources including e-journals. The advent of websites has improved the promotion and awareness among users. It also works as gateway of users interface to increase access ability of information. The study is
related to technical university libraries of north India, which have made been in primitive stage. Websites are simple with basic features. The other technology is a portal technology which have enabled is a portal technology which have enabled the libraries to interface information of high relevance to be accessed. The author further suggested that the cooperation and collaboration among technical university libraries may improve the utilization of e-journals by having a single access point for accessing all e-resources of all publishers.

Gakiliyo, Anna and Obongo, R.R. Ikajo (2013) discussed utilization of electronic information resources in Maharaja University library by students. It was based on four objectives (1) Identification (2) Availability (3) Determination (4) strategies. These objectives are much helpful in usage of e-journals qualitatively and quantitatively. It was survey and questionnaire was used to collect data about usage of e-journals. The author found that the use was effected due to lack of qualified and skilled staff, lack of computer literacy and slow internet connectivity. Journal is a publication periodically published dealing with the collection of articles, poems, stories and pictures often used for official and semi official publications of special groups. Journals may be divided in four categories:

(1) Journals which have special characteristic,
(2) Learned and scholarly journals,
(3) Professional journals,
(4) Parochial journals for parochial audience which may be local or regional.

Vendors are the mediator to supply e-journals. Direct orders are also given for some special journals. There is much difference between selection of monograph and print journals. There are several factors involved in such difference, because journals are on-going material and have a standing commitment for each library and as such the budget for the purpose is also fixed to
some extent. Journals as continuously subscribed and record is maintained on their receive and missing. Libraries also preserve them for future researchers. It also occupy large space for storage. The journals also require indexing and abstracting services for their search. The print media or print journals does not provide quick, easy and cheap photocopy services.

Print journals are not so comfortable to consult. In case of back references, the users has to consult back files, which is time wasting. Moreover, journals require commitment for their continuity in subscribing. Subscription is renewed each year or for a certain period, which needs an positive decision by the selectors, i.e. faculty and library staff. The speedy rising in prices/cost is considered while deciding on budget. The rise in cost is continuous process but it is not in the terms of budget which is always insufficient. The price rises at a much faster rate then inflation. This has effected the journals also because of slow rate of budget than the faster rate of financial arrangement.

Tiwari, Braj Kishore and Sahoo, K.C. (2013) stated the ICT and its effect. ICT has effected the libraries to the most in products and services and in maintain house keeping operations and services. It has also effected the Uniformity and extension of library facilities. The University libraries of Rajasthan have fully used automation in library activities and serving its users. The author further revealed in his study, the infrastructure, and use of ICT in libraries. He made a survey and found that libraries are equipped (not very satisfactorily) with hardware, software, networks and also staff, e-resource collection and financial resources. But libraries are in undeveloping stage so far staff training and facing many problems including finance.
Singh, Harmanpreet (2013). The author conducted a survey of Dr. BRANIT central library regarding use of collection and services. He distributed questionnaires and obtained data to find out the information seeking behavior of users during 2010-11. He analysed the data and studied about library hours, infrastructure facilities and the use of internet for accessing information. The author also find out the level of library services, and access e-resources and online databases, database search techniques, user awareness and the networking. He highlighted users satisfaction and overall functioning of libraries. He suggested for the maximum use of collection and services by the academic community.

Chauhan, Shristi and Sharma, C.K. (2014) discussed three waves of civilization (1) Agriculture revolution (2) New civilization with new system (3) Work ethics and economic structure and political determination. The development of ICT (Information Communication Technology) has given a formation of digital libraries, which is an important source change and creation of new knowledge and educating people.

Kaur, Balbinder and Sharma, C.K. (2014) with the emergence of information technology, there is proliferation of knowledge and need arises to store the knowledge and provide it to user community. Marketing is a media to aware the user about the availability of information and access it free or on payment. Till marketing is not organized, the information cannot reach to the user. But marketing has faced many challenges like competition, customer based policy and professional skill.

Balasubramaniam, P. and Peula, C. Catherin (2014) stated that information is an important item which is a need of every user without any consideration of cast and creed. It is an important factor of education and the society. In the changed
environment of information communication technology, there is enormous production of information product. But it needs awareness and attitude towards e-resources among the post graduate students of Universities.