

## **Chapter 2**

### ***LITERATURE REVIEW***

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The review of literature in any research work is the most important that would encourage the researcher in finalizing the research work. It also aims at understanding the earlier research on the subject. Review of related literature is organized to make it possible for the researcher to get a distinct knowledge about the particular study area. It also helps the research person to be aware about the tested methods, procedures and interpretations of identical studies prepared somewhere else. A review of literature is primarily an account of what has been published on a topic by scholars and researchers from time to time. It is a comprehensive survey of publications in a specific field of study or related to a particular line of research usually in the form of a list of references or an in-depth review of key works. A specific type of serial known as, Annual Review is devoted solely to the publication of literature reviews. Distinguishable literature is available concerning application of information communication technology (ICT) in libraries. A literature review is an account of what has been published on a topic by accredited scholars and researchers. The purpose is to convey to the reader what knowledge and ideas have been established on a topic, and what their strengths and weaknesses are. The format of review of literature may vary from discipline to discipline and from assignment to assignment. A review may be a self-contained unit- an end in itself or a preface to and rationale for engaging in primary research. The advent of information communication technology (ICT) enabled education and library services have become a big challenge for the library professional. An attempt has been made to evaluate and measure the impact of ICT on library and information services by making survey of Special libraries through questionnaire, using publication and citation data downloaded from Web of Science and Scopus databases. The bibliometric /scientometric and ICT/Internet directly relevant literatures were only considered.

The first section of most research articles is usually devoted to a review of the previously published literature on the topic addressed in the article. Hence, every research work needs pre-ordained and background knowledge on the subject being investigated. Similarly, this study aims at to develop the knowledge based on the status of special libraries in Assam. Some of the studies relevant to the present theme of investigation, which have been conducted by the previous researchers that deserve to be mention, are as under:

**Krishan Kumar (1982)** “*Library Organization*” has given an overview of the subject covering different topics such as different types of libraries, public library movement in India and USA; library legislation, cooperation, library association and other organizations, etc. throughout the book, description is that of a service library with a few exceptions keeping in view the spirit of the five laws of Library Science.

**Sethi, A.R. (1983)** in his paper “*Library Co-Operation in India\_ the main problems in India were the unwillingness or inability to support co –operative programs with sufficient funds*”, has described about the importance of co-operation in libraries.

**Sengupta, I.N. (1985)** in his paper ‘*Research Library Scenario in India: a critical analysis*’ studied the research library scenario in India. His study showed that in Indian context, the main problems were financial constraints and non-availability of trained personnel with exposure in modern technological know-how. Virus studies and surveys conducted from 1980 onwards show the problems faced by the special libraries in automating their house –keeping activities and services and also the benefits reaped by owing to automation.

**Ahuja, J.P.S. (1991)** in a paper “*Building a Micro-computer based local area network for libraries: from concept to percept*” describes the need for networking a library with various constituent units of its parent organization. A case for building a micro-computer based local area network is put forth to achieve this goal.

**Barooah, P. K. & Bhuyan, B. (1991)** “*Resource sharing Amongst the Special Libraries at Jorhat in Periodical Acquisition*”, here the authors nicely stated the

present condition and situation of resource sharing amongst special libraries at Jorhat district. Study covers the libraries including AAU Jorhat, RRL TRA, NEC, NEHU, DU, CC. Authors briefly stated the foreign journal subscription of studied libraries with title and cost, also discussed the periodical subscription of all libraries at North East region under review during the year 1991.

**Gupta, R.C. & Das, Shiv(1991)** in the paper “*Computerization Of Serial Control: A Practical Approach Using A Personal Compute*” suggest of personnel computers for serial control to ensure faster and accurate record keeping and issuing timely request for replacement . Information scientist and their role in project literature search staff in an article ‘information center **D.R. Patel** and **S.D. Joshipura** (1997) studied the computer based information storage and retrieval system considerably saved the time of the users and observed that the coverage accuracy , novelty and completeness of the database had increased.

**Chakraborty, B. (1993)** “*Library and Information Society*” discusses about the concept of special library, its organization and functions. **Kirshan kumar**(1995) in chapter six of his book entitled “*Library organization*”, has given a detailed discussion on special library system .A special library usually a small library catering to a small group generally such a specializes in a particular subject or group of subjects.

**Hoffman, U. (1995)** in his article “*Developing a strategic planning frame work for information technologies for libraries*” says that the fundamental structural change caused by information technologies not only effects the technical services of libraries but also shapes the library services that are being affordable to the public. C.P. Johnson (1996) in his article ‘the changing nature of jobs: a paraprofessional time service’ mentions that library functions remain the same, but the tools change and technology is a means not an end.

**Sengupta, S. & Umarani, A. (1996)** in their article “*what and Why of Information Technology in LIS Education*” indicates that the dynamic nature of IT is having far reaching implications in all spheres of human activity, while its impact on LIS is very

significant. It has also created some confusion in the profession and has started a race between IT professionals and Librarians for supremacy.

**Seetharam, S.(1997)** in his book entitle “*Information Consolidation and Repackaging*” discusses about the need to acquaint the students in Library and Information Science Courses and working Information Professionals to the fundamental concepts and prevailing practices necessary to understand and use techniques of information consolidation and repackaging . The book has been structured to cover all aspects of the information consolidation/ repackaging process and provides a framework for Information Consolidation, and discusses, in detail, the pre-requisites and stages/ steps in the preparation and production. In addition, it presents Case Studies justifying the methodology discussed earlier as well as indicates the steps to be followed in the planning and management of Information Consolidation Centers/ Units.

**Venkataramana, P. &V. Chandrasekhara Rao (1998)** in their article “*Impact of Information Technology on library operations and services*” express views as\_ perhaps, there may not be any area of operation or service where you can not apply IT and get the benefits in the following ways: it helps to avoid duplication of effort and work in library operation; it facilitates co-operation and resource sharing through library networks; it helps to introduce new services and improve existing services; etc.

**Devarajan, G. (1999)** in chapter two of his book entitled “*Information Technology in Libraries*” given a statistical analysis on ‘Literature on Information technology’. He mentions that libraries have failed to meet the challenges of the electronic age even though they have an ample warning of its arrival.

**Koganuramath, M. &Rathare, R. (1999)** in their study ‘*Indigenous Database Development Of Social Science Using CDS/ISIS In TISS Library*’ discussed the design and development of Tata institute of social science library database using CDS/ISIS their study showed that database development and retrospective conversion was a task that needs that adequate financial support for procuring computers and skilled manpower . A. Yadgri (1999) discussed the application of latest information technology

could help remove barriers of distance and time, and drudgery of repeated manual efforts in the library routines.

**Mishra, R.K. (1999)** in his paper “*Library software selection: an analysis*”, suggested needs of computerization of all housekeeping operations, networking, Bar-code facility, OPAC, etc. The software selection is highlighted as the prime requirement during computerization of any library. J.M. Latham (2002) in his article ‘*A Librarian, a technologist and information scientist are out in a boat*’, explain that technology has changed our environments, and our jobs, our relationship to each other. It made libraries and their services much more visible.

**Chakrabarty, Bipul Kumar (2000)** in his paper “*Review NAD Designing of Database Management for Information Handling*” discussed the different information activities and the different information handing system. in his article ‘special libraries – how to survive in the twenty first century’ by **Roland Wittwer(2001)** states that the advent of net has led to a requirement to revisit the traditional role of the information professional and a need to refocus on core competencies. Seeking information on www closely resembles the work of a detective. In other words, www opens up an inconceivable volume of frequently ill-structure information. Cybrarians or Digitarians are two of the names that have been suggested for special libraries of the future.

**Panigrahi, R.M. (2000)** in his book “*Impact of Information Technology on Libraries*” mentioned that during the last 20 years, technology becomes a major factor on the library scene. There is much wider range of choices in applications to the acquisition, storage, retrieval and dissemination of information. Although automation is an evolutionary process, there have been several developments in Information Technology which may be characterized as revolutionary in terms of their actual or potential impact on the library.

**Singh, Neena (2001)** in his paper “*Internet: importance and usage for library and information professionals*” focuses on the impact of Internet on various library activities, services and product. It also emphasizes the role of librarian and library

professionals in the present Internet era. Today the internet has revolutionized the traditional library activities viz. acquisition, technical processing, reference service, circulation, and resource sharing and document delivery. The paper also emphasizes the active role of librarian and library professionals in designing and maintaining libraries web page/website to increase in library efficiency. Now the internet has integrated all the aspects of library activities, the librarian use the Internet for ordering books and journals online, cataloguing of document, participate in ILL, Use e-mail, support reference service and establish library/home page to project their collection and services on the site.

**Sinha, S.C. & Kumar, Dhiman (2002)** jointly express their views on special libraries in the book entitled “*Special Libraries: Research and the Technical Libraries*”. In the last chapter of this book they discuss about the role of the special librarian in the electronic era. **Kumar, P. (2003)** “*Information Technology: Basic Concepts*” discussed about application of information technology in libraries.

**Turban, E. et al. (2003)** “*Introduction to Information Technology*” 2nd Ed; in this book the authors discussed more about the role of information technology to support organizational personal, regardless of their functional area or level in the organization also discussed why and what about information technology.

**Barooah, Arunima (2004)** “*Library Science: prospects in 21<sup>st</sup> century*” discusses about the importance of Information Technology in libraries. Technology is the sermon of the day. All types of libraries, be it a Public Library, Academic Library, Special Library etc. having one thing in common i.e. providing facilities for accessing information about books. And to serve the purpose, technology and particularly e-technology plays an important role. It means that knowledge of techno-developments in the field of learning has become an essential part of the library science.

**Sreivastava, Mahendra Naryan & Kanjaujia, Laleta (2004)** in their study “*State of the Art of Documentation and Information Services in SAU Libraries in India*” presented the state of the art position of documentation and information services in agricultural

universities in India. In all libraries 100% whereas computer as computer based services are available only 30% libraries. They emphasized that electronic libraries can provide better services which would certainly effect all-round developments in agriculture production to meet the future challenges on food front.

**VenkataRamana, P. (2004)** “*Information Technology Application in Libraries*” describes an overview of Information Technology and also an excellent review of the global as well as national scenario of the current trends in information technology application in libraries. It discusses the key factors in strategic technology, planning and strategies for managing technology change in libraries.

**Obioha, J. (2005)** “*The role of ICT in information seeking and use amongst research officers in Research Institutes in Nigeria: The Nigerian institute for Oceanography & marine research institute experience*”, the purpose of the study is to ascertain if ICT has played any roles in helping research officers in their information seeking and use, to know what these roles are, to find out if there are constraints in the use of ICT tools by research officers, and to find out what these constraints are (if any) and extend useful suggestions that will aid in the researchers’ information seeking and use.

**Shing, S.C. (2006)** in an article “*Special Libraries in India: Some Current Trends*” discusses some current trends in special libraries in India. He, mentioned that, we have been late starters in many things in India .there was a time when we used to take a ‘wait and watch’ attitude. But now to come along rather we all have to follow a new mantra for success, I.e. “do not wait ...but change ... change and .... Change...”

**Sodhi, Mahendra Singh (2006)** in his book “*Advancement of Library & Information Science*” discusses the impact of Information Technology in present day context. The impact of Information Technology is now being visible among the people who are using computers in library for advancement and up gradation of traditional knowledge resource. It has become a necessity in present day context.

**Haneefa, Mohamed (2007)** in his paper “*Application of information and communication technologies in special libraries in Kerala*” revealed that though the

libraries had hardware, software, and not reaching the user to the expected all library activities and application of ICT. A good number of the library users were not satisfied with the application of ICT in their libraries indicated “Inadequate ICT infrastructure” as their major reason for dissatisfactions. another made by Haneefa, Mohamed (2007) in his paper ‘use of ICT based resources and services in social libraries in Kerala, research work and a good number 43.4% of the user indicate it was significant. ICT was not significant for a very few 2.2% user. Central government autonomous institution is better in the use of various ICT based library resource and services.

**Barooah, P. K. (2008)** “*Internet Service – Usage in Academic Library*”. In Souvenir-Training cum Workshop on Automation in Academic Libraries of North East India. This paper discussed about the use of ICT tools in the libraries and its utilization towards the development of libraries. This paper also discuss about the use of ICT especially in NEIST library, Jorhat.

**Dhiman, A.K. (2008)** in his book “*A Hand Book of Special Libraries and Librarianship*”, discusses about personnel management, financial management, service, library automation, resource sharing of special libraries. In the last chapter of his book describes about the trends and development in the field of special libraries. This book contains eleven chapters.

**Kumar, P.S.G. (2008)** “*Fundamentals of information science*” contains 6 parts. In the part c of the book contains one chapter about information technology and its application .he mentions about concept, scope and impact of information technology. The information technology has a wide ranging impact on library and information work. Information technology is electronic technologies used for collecting. There are two categories and those which disseminate information, which include additional technologies like, repro-micrographic technology, technical communication technologies; and database creation and use.

**Singh, D.K. & Mohammad, N. (2008)** in “*Impact of Information technology and role of Libraries in the age of information knowledge societies*” describe information



technology is at present has occupied the center stage and convert the whole world into a global village with global economy, which is increasingly dependent on the fruitful management and dissemination of information. The enormous advantage in Information Technology has eased the way of delivering information to the whole world. They discuss the impact of information technology and libraries role in the knowledge societies. The Authors also highlight the problems which are faced by the library and information sector in India and development using the modern information technology.

**Islam, Anwarul and Panda, K.C. (2009)** in their study "*IT in Special Libraries in Bangladesh: a Case Study*" mention that the application of information technology in libraries is not a sudden movement, but rather a production of continual development of telecommunications and computer technologies. The exact date of IT application in libraries is not only unclear, but also hard to trace, since no authentic source on subject is available in LIS literature. But it is assumed that, perhaps first IT used in libraries in 1936 "in 1936 Ralph installed Hollerith punch card for circulation control in the university of Texas".

**Panigrahi, P. (2009)** in his research paper "*Present & Future of ICT applications in libraries and information centers of North-East India- A library professional's perspective*" attempts to discuss the rapid developments taken place in Information communication technology (ICT) and its application in rendering better and effective library and information services to its users to find out how far these libraries are successful to cope with new ICT based Services.

**Thakuria, Juli et al. (2009)** in their research paper "*How effectively ICT is being used in college libraries- A case study*" discuss about the use of ICT in the college libraries and how effectively those libraries have been benefitted from using ICT and which way the libraries have been affected badly of using ICT.

**Bansal, Vipul (2010)** in his research paper, which deals with emerging ICT to modernize college libraries, pointed out various applications of ICT in Library services to meet users' needs in present scenario. Use of ICT is essential to modernize the

libraries. He stated very clearly that ICT is beneficial for mechanization of traditional libraries and their functions. ICT also helps in storing, preserving, retrieving and disseminating information in economical ways to the users. In his paper, he has suggested that application of ICT in all types of libraries is growing fast and ICT only helps in removing the barriers of information handling. Modernization of libraries is must and for this purpose ICT is the best tool.

**Lakshmi, S. (2010)** in her book “*Recent Trends in Library Science*”, focuses on recent development in library and information science, states that digitization and digital library have evoked a wide range of responses among the people who have interest in digital information.

**Latha, J.K. &Nagarjan, M. (2010)** in their paper “*User And Their Usability Assessment Of ICT And E-Resource In Special Libraries (Tamil Nadu), An Overview*” shows the use of ICT and e-resources is very common among the scientists and research scholars of special libraries and majority of the scientist and research scholars are dependent on ICT and resources to get the desired and relevant information. It is observed for all the existing disciplines but the infrastructure to use these resource is not adequate and can hinder the ability to use these resource is not adequate and can hinder the ability to meet requirements of the users.

**Pandey, Prabhat (Ed) (2010)** “*Recent advances in library automation*” contains twenty four articles, which deals with various aspect of information technology application in library such as web 2.0 technology, Wi- Fi technology in Indian libraries. The book describes that the automating the library functions is not easy. So it is imperative to understand the problems faced while automating the library housekeeping activities and services in order to suggest ways of overcoming these problems and to achieve benefits of automation.

**Pandey, Raghunath & Velayudhanpillai, M.N. (2011)** “*Emerging Technique in Library Science*” states that, by automation in the form of computers and telecommunication technologies, libraries are now able to offer services that they were

quite unable to offer earlier. Automation has resulted in the abolition of some departments and the down-sizing of others, as well as the emergence of new entities. The author has divided this book into fifteen chapters. In the initial three chapters, there is mention of applying technology to library operations. In another book “*Digital Library: trends and prospects*” by Pandey and Velayudhanpillai (2011) critically examines and analyses the various issues and problems associated with digital library and its future prospects in the age of information technology.

**Pandey, Raghunath Velayudhanpillai, M.N.(2011)** in the book “*Library Planning And Development*”, mention that , any library or department of a library can be regarded as a special library if it undertakes ,to supply from its own stock and others sources ,literature and information required for research projects, professional or administrative problems or problems relevant to commercial and industrial development for the benefit of a smaller or larger group of persons engaged in research ,it is quite clear that primary function of special libraries is to provide help in research .this book contains nine chapter sixth is a short one and in a nutshell explain the role of special libraries in research work.

**Sarmah, Mukut (2011)** “*IT Applications in Academic Libraries of Assam*” discusses the prospects of application of IT in academic libraries in Assam and also the attitude of library professionals towards IT so that appropriate measures can be adopted to improve the services in a better way. Overview of IT and its application in different library activities have been discussed in this book with illustration.

**Vijayakumar, A. &Vijayan, Sudhi S. (2011)** in “*Application of information technology in libraries: an overview*” stated that information is an indispensable part for human development as like as air. The information technology has bought a pace of changes which pave the way for the people to live, work and play in this world. The Information technology has played a vital role in development of library services, for an active reaction to the challenge of information service provided. They also discussed rapid development of information technology and its application in library services.

**Barman, Badan (2012)** *“Library and Information Science UGC-NET Guide”*. 2<sup>nd</sup> Ed; the idea of this guide book is to help the NET aspirants to absorb the gist of “easy readings” on each and every topic of the NET Syllabus. The articles in their totality would definitely enrich the knowledge of the NET aspirants for better understanding.

**Das, Kailash Ch. (2012)** in the book *“Application of Information technology in Libraries”* mentions about the technology and use of digital information services. This book contains eighteen articles pertaining to relevance of application of information technology in libraries. This book describe that the main reasons for adoption of information technology are information explosion, availability of information in machine readable form and multi-use of machine readable records by many users for any number of times.

**Hussain, Akhtar (2013)**, in his study on *“Use of Electronic Information Resources and Services among the teachers and Students Institute of Engineering & Technology, CCSU, Meerut”* found that all the students and teachers were well aware of the e-resources and they were using the e-resources mainly for the purpose of study, research followed by other purposes. Majority of the teachers and students were accessing e-journals or e-articles.

**PLANNER (2014)**, *“Capacity Building in Library and Information Services”* discusses about to provide a forum to LIS professionals to discuss and interact on the new challenges and dynamism for re-defining the library and information services to meet the demands of the end users in digital era. The purpose of the PLANNER is to promote library automation and networking in the NE region.

**Singh, Sanjay Kr. (2014)** in various chapter of his book entitled as *“Impact of ICT on Management of Library Operations”* focuses on the impact of information communication technology and its application on different activity and management of library services. The study attempts to explore the gradual advancement of modern technologies in libraries distinguishing old and new technologies. The study endeavors to identify various components of ICT which are used or being used in libraries and

information systems. The study finds out the exact reasons to use computer and related technologies in libraries. It also delineates the functions, impacts and challenges of ICT based library system.

**Md. Sohail & Alvi, A. (2014)** in their study on “*Use of Web resources by medical science students of Aligarh Muslim University*” discuss about the use of web resources. They have showed in their study that majority of the students were using web resources for improving knowledge. Very few are using web resources at central library; instead they prefer cyber café followed by other places.

**Gupta, S.K. & Sharma, S. (2015)** in their study on “*Use of Digital Information Resources and services by the students of IIT Mumbai Central Library: a study*” showed that the students were visiting library mainly for the purpose of getting books issued/return. In this study it is showed that the users were having an opinion that more training and orientation program should be conducted to enhance the use of digital information resources and services.

**Das, Gitika(Ed) (2016)** “*Digital Library: Issues, Challenges & Opportunities*”, in this book more of the things discussed about the importance of digitalizing the libraries which will improve the teaching-learning experience of the teachers and students.

**Choudhury, T.A. & Das, Jaba Moni (2017)** “*ICT and its Impact for Information Access in Special Libraries of Greater Guwahati: A Study*” this paper attempt to discuss about the rapid development taken place in Information and Communication Technology (ICT) and its application in rendering better and effective Library and Information services to its users and to find out how far these libraries are successful to cope with the new ICT based services and the present status of Special libraries of Greater Guwahati.

**Choudhury, T. A, Rahman, Mukutor & Barooah, P.K. (2018)** “*A Scenario of Special Libraries and ICT application in the State of Assam: A study*” this paper attempts to discuss the fast development of Information Technology and its application in the library services and the study has been further delimited to the status of ICT

application in the particular area of Special libraries in Assam. Today libraries are equipped to accomplish the newly Information Technology based services. Information Technology enabled services fulfill the information needs of the users at the right time in the right place to the right person.

**Choudhury, T. A, Rahman, Mukutor & Barooah, P.K. (2019)**“*A Study on Information communication technology (ICT) Literacy Skills among the LIS Professionals of Selected Special Libraries of Jorhat, Assam*”(Communicating),this paper presents a study of the validity of a simulations-based assessment of ICT literacy skills among the LIS professionals. An overall goal for the assessment is to support ICT literacy skills instructional initiatives among LIS professionals of Special Libraries of Jorhat.