CHAPTER-II
REVIEW OF LITERATURE

2.1 Introduction

Review of literature is the primary step for conducting research in any field. It enables the researcher to get insight in to developing the body of the research and gives understanding of research problem. The review of literature suggests the method and technique for dealing with research situation and also suggesting avenues of approaching to the solutions to problem.

The present study of research is devoted to the status of University library providing Library services using current different technologies. The researcher as a primary part of research has referred and perused a number of research articles published in the journals and magazines devoted to the science of library and information service.

2.2 Review of literature

For the convenience of literature review, the existing literature has been reviewed under following four categories.

- Academic libraries (University Libraries)
- Library services
- Application and trends in technologies
- Best practices

2.2.1 Academic libraries (University Libraries)

The existing literature focused on the growth and development of libraries in India are mainly Report of Advisory Committee (1975), Ministry of Education Advisory Committee for libraries Report (1965), Ministry of Education report (1961), Ranganathan Committee report on library development and plan and Ranganathan's review on National Greed of Public library system in India are the works wherein we find the commendable contribution towards the critical assessment in modern library in India.

Hilal, Ahmad and Ganaie Shabir Ahmad (2013) carried out research with the intent to highlight and compare the status of automation of book acquisition system in the Central Library, Indian Institute of Technology (IIT) Delhi. The study revealed that

there is no major difference in using the general features of acquisition module among the select libraries. However, it was observed that Central Library, IIT Delhi and AllamaIqbal Library, Kashmir University run parallel in utilizing equal number of selected features of their acquisition module, while as P. K. Kelkar Library, IIT Kanpur lags behind in this direction.[1]

Gohel, B M and Parmar, R D (2013) discussed the different types of collections of books maintained in the different University libraries using the questionnaire method for the collection of data. The research found that the library committee was working in all university libraries. The highest allotment of amount for magazines was found at the M.S. University Library, Baroda, and lowest amount was allotted at the North Gujarat University Library, Patan. The comparison and evaluation of the data from all the University libraries of Gujarat showed that the highest collection of books was seen in the Gujarat Vidyapeeth Library and lowest collection was found in the North Gujarat University Library, Patan. Only Gujarat Vidyapeeth Library had E books and E-Magazines facility among the eight libraries of Gujarat. The Gujarat Vidyapeeth Library, Ahmadabad, was the first to be established among the university libraries of Gujarat and the Gujarat University Library, Patan, was the last to be established[2]

Abdul Mannan Khan (2014) aims to understand users opinion regarding the adequacy of the library's collection and to analyze the level of users' satisfaction about the library collection, organization, facilities, and services. Results show that the majority of the respondents believe that not only does the library possess an average collection, but the overall library's function, i.e., library collection, organization of collection, attitude of library staff, services, and IT-based services, is also rated average.[3]

Bhatt, Sunil (2013)reveled that Electronic publishing and telecommunications have enabled the library consortia to expand both in number and functions over the last decade in India. Thus, several consortia have been developed in last few years. The present study summarizes the consortia system and document delivery services at Banasthali University under JCCC@UGC-INFONET consortia. The author makes out that the consortia system including document delivery services is quite promising. The study also highlights some recommendations for better utilization of consortia services.[4]

Mehar Singh; Ajay Kumar Arora (2015) describes the role of selected university libraries in Haryana, India in higher education and research of Engineering, Science and Technology. This study comprehensively studies the functioning, the resources and services of these libraries. The collection development, library

membership, staff position, working hours, services offered and e-resources subscribed by these libraries are also discussed.[5]

Md.Shariful Islam and Md.Najmul Islam (2007) of Bangladesh have carried out research study focused on the use of Information and communication technology use in the libraries for ensuring the smoothness in the library activities. These libraries were found to be using library software's and electronic equipments for the functioning.[6]

Harshad Kumar Patel and Patel (2012) had carried out a research study entitled impact of ICT on Library and its services of S.U Patel University libraries. Prabhuand.Srinivsaragavan (2012) had carried out a study entitled networking of ICT based services among library in an around Trichy:- The study has also shown that the students of M.Phil& M.LISC were greatly satisfied by the networking based services.[7]

A research study was carried out by ,**YacobHalso (2011)** of Department of information resource management of Babco University, Nigeria entitled factors affecting information and communication technologies used by academic libraries in south western Nigeria. In this research a total of 25 academic libraries were selected for the purpose of research. A detailed probe was made regarding factors affecting ICT used like cultural factors, Human Factors, and organizational factors. [8]

Shivkumran, Dr. V.Geeta& B. Jayashprakesh (2011)carried out astudy to determine the ICT facilities in University Libraries covering 10 universities in Tamilnadu and study reveals that these universities are using facilities like computers, Printers, Laptops, Scanners, and Photocopiers along with library automation software, digital library software, E- learning software and digitization software.[9]

Mr. Nimai Chand Shah (2011)had conducted research study entitled a Study of university library services and its users in the 21st century. The study mainly focused on view on attitude of user community including students, teachers, research students (M.Phil& PhD) post doctoral research scholars, professors, responsible for research projects, the members of academic bodies of the university, university management people and special scholars using the university library. [10]

A research study entitled Digital libraries- value and productive had been published by GIO Wiederhold of Stanford University. He has described the characteristics of digital libraries the services in digital libraries, the digital libraries and the future of digital libraries. The study has mainly focused on digital library including Cataloguing, Editing, Referring, Indexing, Result processing. The study also described

the new services in libraries like online revenue collection, Image search, dynamic books, rural access. **GIO (1995)**[11]

An academic paper entitled Use of RFID technology in Libraries: A new Approach to Circulation, Tacking, Inventory, and Security Library services has been published by **SayedMd.Shaid (2005)**Thestudy described in detail about the application of RFID Technology and gives the description of Various systems used in RFID Technologies.[12]

The research study was in Pakistan by **SaeedUllah Jan and Dr.RafiaA sheikh (2011)**of Sindh University. The study was entitled at Automation of University Libraries-A Comparative Analysis of Islamabad and Khyber PukhtoonKhwa, Pakistan.It was revealed that both the universities were fully automated and were offering services like Circulation, New arrival list, Inter Library loan, Reference, User education, CAS, SDI, Indexing and Abstracting, Internet, Photocopying, OPAC and News paper Clipping. It revealed that on an average 30% minimum to 100% maximum were satisfied by services offered. Both the libraries were using software and databases, for the management. The libraries had internet and websites to serve the user community.[13]

A research paper was published by **D.Shivlingaiah&VasappaGowda(2004)**entitled Facilities and Services in university Libraries in Karnataka. For the purpose of the study six general universities selected for the study and attempt was made to study the views of the user community towards various library services offered by these universities.It was found that the user community was aware about the various services offered by the library and were in favours of use of Information technology and Computer assisted services. However none of the university libraries had these facilities. Only Three libraries had web Based Opac System.[14]

A Research was conducted entitled Use of information and Communication Technology (ICT) in Collection Development in Scientific and Research Institute Libraries in Iran by **ShahnazKhademizadeh(2012).** For the purpose of study 10 research institute libraries were selected and the specific reference of study was collection development. The study reveals that ICT application affects on collection development of libraries. Further study reveals that user become aware about application of ICT in Libraries and they are widely using the facilities like Computer, Telecommunication, Internet, multimedia, digitization, and video conferencing and so on.[15]

2.2.2 Library services

The study analyzed the use of Internet services by the users of Science and Technology (S&T) libraries in Delhi. A total of 105 well-structured questionnaires were distributed among S&T library users. The questionnaires were checked, and 90 (85.72%) questionnaires were found fit for analysis, out of which 15 (14.28%) were considered unusable. The present study demonstrates and elaborates the various aspects of Internet usage, sources of getting information about Internet Web sites, favorite search engines, problems faced by the users in surfing the Internet, satisfaction with Internet for research purpose, and various facilities and infrastructure facilities available in the libraries. Suggestions have been given to make the service more beneficial in the S&T libraries. **Akhtar, Kumar, & Parul, (2009)**[16]

Library is essentially a service institution. The traditional function of library service involves a variety of activities on the part of the library. To achieve its goals and realize its policies, a library undertakes various services.viz. Circulation service, Cataloguing service, Acquisition service, Reference service, Bibliographic service, Information service, Translation service, Inter library loan service, OPAC etc. This survey was conducted to gain a clear picture of the "Use of Library Services among the users of JMI and IIT, Delhi (**Fatima, Islam, Kumari, & Mouzzama, (2011**)[17]

Kannappanavar & Prakesh (2011)evaluated the present situation of fashion technology institute libraries in Bangalore city. The study is intended to elicit opinion from the students of fashion technology institutes in Bangalore city regarding the resources and services of their respective libraries. A questionnaire was used to collect required information and data from the students of the institutes under study. The analysis of the collected data covers the use of library resources, services and physical facilities available in the libraries.[18]

Kumar, Husin, Fathima, & Nishat, (2010) Examined the expectations of faculty members and research scholars towards library resources and services at SardarVallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India. It analyzes the various aspects of library collection usage, frequency and purposes of library visits, and user satisfaction of library services. It also relates major problems that hinder faculty members and research scholars from using the library. [19]

Helan Hayden & Terry O'Brien and Maoilisa O Rathaille (2005) Aimed at finding out how traditional approach to survey can inform library service delivery, and for the purpose of survey 1100 undergraduates carried the survey . The major findings of

study are as follows: 95% of the students used WIT Libraries and the related facilities available e in the library, the student were benefited by the learning support provided by WIT libraries and they expressed overall satisfaction about the working of WIT Libraries.[20]

TayChiew Boon (2010) The study highlights about the application of the techniques of reference point Document Delivery service (RPDDS) intended to integrated NLS Remote Reference services with document supply to the end users with a single online interface. The study reveals that the RPDDS projects observed encouraging trends in its users and the staff.[21]

2.2.3 Applications and trends in technologies

The emergence of new and integrated approaches to information technology projects and web-based service initiatives in libraries poses a number of challenges to those who manage them. Library managers must work closely with specialists in areas that are not always found within the library, yet there is no evidence-based data documenting the factors involved in doing so. The findings illustrate that library and information science project managers involved in online and web-based initiatives face five key areas of concern: information technology management, information retrieval protocols, user-specific applications, user education, and strategic planning. **David, (2013)** [22]

Bamigboye, Agboola, & Okorie (2013) examined the competency of academic librarians in using information and communication technology (ICT) tools in delivering services to its readers in the NimbeAdedipe Library, Federal University of Agriculture, Abeokuta and OlabisiOnabanjo University Library, Ago-Iwoye, Nigeria.[23]

Computer infrastructure plays a critical role in the academic system for meeting teaching, learning and research needs. Libraries are an integral part of academic system. Adequate infrastructure facilities support academic libraries share their resources and services in an effective way. National Institute of Technology, erstwhile regional engineering college, are prime institutions and benchmark for technical education in India in the field of engineering, science and technology. **Srinivasa & Choudhury, (2010)**[24]

Mohapatra (2000) presented salient features of the electronic library at IIT Kharagpur, discusses the infrastructure facilities available at the Central Library, and outlines plans for future development.[25]

Kajewski (2006) Explores the range of free and inexpensive technologies that have been implemented with practical and immediate benefits for library staff and users. Examples of integrating technologies include blogs, wikis, RSS aggregators, podcasts, vodcasts, web conferencing, and instant messaging. Also reported is the take up of these technologies by public libraries nationally and internationally. Australian public library use and promotion of these services is examined.[26]

Cassidy, Britsch, Griffin, Glenda, Tyler, & Turney, (2011) Examined technology trends in higher education and how they impact student habits and preferences in college libraries. A study was conducted among students at the Sam Houston State University in East Texas to investigate their usage of electronic devices and technologies such as text messaging, Twitter, podcasts, Really Simple Syndication (RSS) feeds, and social networks. Results indicate that students do wish that basic library services were available through the most popular social networking sites and Internet technologies. Topics include a review of literature consulted, methods used, and the demographics of the student body researched.[27]

Bilawar, (2004) Concerns with how library services are best served by the adaptation of such technology in this digital era. The speed of Information Technology (IT) revolution is in top gear, during this decade, and makes the library to a global library system to operate it at our finger tips.[28]

Management libraries are facing a piquant situation and unforeseen challenges in this age of information technology. They are reeling under pressure to fulfill their obligation of meeting the diverse information needs of clientele. IT has brought in sweeping changes in the traditional way libraries are functioning. Libraries need to evaluate, measure the impact of information technology on management libraries affiliated to University of Mumbai, Mumbai City, India. **Kanamadi & Kumbhar,(2007)**[29]

Mohamed (2014)reported on an innovative project which grew out of the desire to facilitate access to information using the Quick Response (QR) Code which are easily read by mobile phones with cameras, the QR Code provides a simple but effective means for library patrons to access library resources.[30]

Librarians and library school faculty have been experimenting with artificial intelligence (AI) and expert systems for three decades, but until now, there has been no comprehensive survey of the results available. Reports on the applications of AI

technologies in library and information services, assesses their effectiveness, reviews the relevant literature, and offers a clear-eyed forecast of future use and impact. **Lancaster & Warner, (2001)**[31]

The self-service technology (SST) launched outside libraries has received great attention in Taiwan. This automatic book stop (ABS), FastBook, has raised some interesting issues regarding users' behavior in the library context. Hsiao & Tang (2015) assessed critical variables that contribute to users' acceptance of SST in the library context; second, to propose an integrated SST acceptance model in terms of technological and individual factors; and third, to further examine the gender differences among all the theoretical relationships proposed in this research model. **Hsiao & Tang (2015)**[32]

Jotwani (2013) comprehensively studied the functioning, the resources and the services of these libraries. The level of automation, availability of ICT infrastructure, access to electronic resources and the digital library initiatives taken by these libraries are also discussed. These libraries are an integral part of the IIT System and are highly valued by their users for their services, highly skilled staff, and easy-to-use collections. It is suggested that these libraries need to move to the next level of technological up-gradation including application of cloud computing to improve their resources and services.[33]

Chatfield, Hughes Anne and Kush (2014) Indicated that librarians continually integrate new technologies into library services for health sciences students. Recently published data are lacking about student ownership of technological devices, awareness of new technologies, and interest in using devices and technologies to interact with the library. A survey was implemented at seven health sciences libraries to help answer these questions. Results show that librarian assumptions about awareness of technologies are not supported, and student interest in using new technologies to interact with the library varies widely.[34]

Kurashashi (1988) discusses the impact of information technologies on library services in Japan in three distinct phases: the 1960s, the 1970s and the 1980s. In the first, the sharing of computers with researchers engaged in scientific research was the norm. The 70s saw libraries using computers for loan operations and some information retrieval services, and the computerization of the compilation of the Union List of scientific periodical is noted.[35]

University libraries are complex enterprises, and when enterprise-wide network technology replaces older ways of conducting business, many impacts are felt, and many changes follow. In this paper, it is shown that the relationship between user and librarian is drastically affected by such networking, and that a new way must be found to maintain the benefits of the traditionally consultative role of the librarian as the information expert. **Coetzee (1994)**[36]

RameshwarDayal (2012)has published a study on recent trends of using ICT in modern college library. The Technologies are Internet; web Technology, Networking Technology, Library Automation, Optical Disk storage technology, Scanning Technology, Bar-coding Technology, RFID Technology, and Digital & Virtual Libraries. The researcher has also referred these technologies for the reference of research in the present study.[37]

Colaco and Hilda Moraa (2012)highlighted the technology of crowd sourcing used in Digital libraries and benefits derived from it.[38]

An academic paper has been published on development of application of Mobile Technology in South Korean Libraries by **Wontae Choi (2009)**Thestudy described about the application of Mobile technologies and the related services in the digital libraries.[39]

An academic paper entitled Application of ICT library Services was published by **Rahul Jadhav(2015)** of Maharashtra which mainly highlight the use of ICT services in a college library.Vinitha, S.Kanthimathi (41)& K. Tharani Devi highlights changes brought about by ICT in the University Libraries.[40]

An academic paper entitled Study on Latest Trends in E- News paper and E-News Services in the Electronic Era was published by Dr.**ZaufishanSajjad(2013)**The academic study had undertaken a survey of 12 web sites of News papers and News channels. The study has described deeply about Key technological devices like E- Book, EctacojetBookColor,Sony Reader-Wi-Fi, ASUS E-Reader DR 900,Moviestar eReader, e-Griver Touch/IDEO Pandigital,NoveleRedars ,Cool eReader,eSlick Digital Book Reader, ElnoexeTouch, IRiver story HD, Digital Ebook Reader, Fnacbook,andAage Book. The academic paper was useful to the researchers in knowing the new concepts of E-News papers.[41]

A research paper entitled Correlation among library facilities; an analytical study was published by Dr.**Y.SrinivasRao (2011).** For the purpose of study he selected national Institutes of Technology located at 20 locations in India the study covers the

following aspects mainly Library automation, Network Infrastructure, Computer infrastructure, Manpower, and Networked services. The survey of 20 institutes was made through the questionnaire. The study has revealed that thesignificant co-relations among facilities of NIITs in India. The study highlighted that the libraries play a very important role in promoting the higher education. The NIITs were found to be richly funded by Resources, Technology, Manpower and other facilities required in modern Libraries.[42]

Middleton, Michael, Hallam and others (2003) provided a variety of mechanisms for instructional support that are used in library and information studies programmes at Queensland University of Technology. These include the use of various facilities within the University's online teaching system.[43]

Beth S Woodard; Lisa JanickeHinchliffe (2002)presented frameworks relating to technological change and innovation, and then discusses how those theories can be applied to the management of instruction programs in libraries and discusses with specific examples highlights both the incorporation of technology into teaching and learning, as well as the use of technology to manage instruction programs.[44]

Jange, (2015) highlighted the current developments in academic libraries in order to tune with the changing information industry and requirements of the user community and share his experiences and implementation at Virtual Learning Resource Centre and Digital Library, Gulbarga University, Karnataka and highlights some innovative practices and services that can be rendered in the academic libraries for better visibility and sustenance of professional excellence.[45]

JagdishArora (2009) discussed the implications of revolutionary technologies are enormous and are discussed in the paper along with their examples as applied in the INFLIBNET Centre. Library 2.0 encompasses a range of new and contemporary technological tools and techniques that are used for evolving collaborative environment required for Library 2.0. These tools and techniques are useful for libraries in providing new services and making existing services available in new and interesting ways. Implementation of some of these tools and techniques are likely to improve reputation and standing of libraries in the community. Some of them may successfully attract new patrons to the library, others may help to retain existing members or make libraries even more important as centres of the culture and history of their cities and academic institutions. Some of the new services may remain unused. Applications of Library 2.0 has promise to bring revolutionary changes in libraries that are bound to bring about conceptual, cultural and physical changes in libraries to keep pace with the changes in

communities and their information seeking behaviour. Applications of Web 2.0 technologies in libraries will result in a meaningful and substantive change in libraries, its collection, services and methods of delivery of services. The library's collection will change, becoming more interactive and fully accessible. The library's services will change, focusing more on the facilitation of information transfer and information literacy rather than providing controlled access to it.[46]

2.2.4 Best practices

NAAC (1994) listed some of the best practices that can enhance the academic information environment and usability are Computerization of library with standard digital software, Inclusion of sufficient information about the library in the college prospectus, Compiling student/teacher attendance statistics and locating the same on the notice board, Displaying newspaper clippings on the notice board periodically, Career/Employment Information/ Services, Internet Facilities to different user groups., Information literacy programs, Suggestion box and timely response, Displaying new arrivals and circulating a list of those to academic departments, Conducting book exhibitions on different occasions, Organizing book talks, Instituting Annual Best User award for students, Organizing competitions annually and conducting user surveys periodically.

During 2005, Workshop on Identifying Best Practices in Library and Information Services was held at NAAC on 26th October 2005and has provided 48 case studies depicting Best practices in various colleges and universities.[47]

ManoramaTripathi and V K J Jeevan (2009) presented current status of library operations in IGNOU basing the best practices adopted by UKOU which has comparatively excellent IT enabled information facilities among distance learning institutions. IGNOU has a quarter century of nationwide operation in the country bringing substantial credibility for open learning activities. Distance education activities in the country got a sea change from the correspondence courses paradigm to distance learning practices which stand today as good as regular stream in many disciplines and even professional fields like management, computer science and library science. IGNOU was set up based on the UKOU as a lofty model.[48]

Vyas (2009) provides a few examples of the best practices experienced in libraries in different situations by Indian library scientists like Dr. S.R. Ranganathan and others. It elaborates upon Prof. Tikekar's comment that blind imitation, false competition, status symbolism will not work and finally submits that best practices of

British libraries and American Center Libraries operating in India should have been included for our purpose.[49]

Tikekar (2009) warns us that"Blind imitation, false competition and status symbolism do not work well. Ad hocism too does not accomplish the desired goal. Ill planned radical change would prove costly and unwieldy. At the same time both resistance and or reluctance to accept the inevitable changes will be harmful to development of libraries."[50]

GaradMadhukar(2015) highlighted the role of academic libraries, challenges in academic libraries and the impact of ICT on them in the present context and how it can be overcome by using the best practices. The process that are adopted in the academic libraries are discussed and concludes that with the adoption of the best practices in academic libraries there will be a continuous improvement and overall performance in the institution / organization.[51]

Waghmode, (2013) discussed the best practices in the library of SonubhauBaswant College in Shahapur. Role of NAAC in college library development is very important, so NAAC tries to develop library through the library best practices in their publication "Best Practices in Academic Libraries"[52]

LuizaBaptistaMelo, CesaltinaPires and Ana Taveira (2008)identified best practices in order to improve the quality of services in Portuguese academic libraries describes an ongoing project to assess the performance of library services, resulting from a partnership of six Portuguese higher education libraries. The study has three main steps: (1) selection of criteria to be evaluated and selection of their corresponding performance indicators; (2) data collection and analysis; (3) identification of best practices. The selection of the criteria to be evaluated is based on a mixed model combining the Common Assessment Framework and the Balanced Scorecard.[53]

The Metadata Best Practices Task Force (MBPTF) at the Colorado State University (CSU) Libraries developed a core set of metadata elements and an accompanying data dictionary to facilitate a coordinated metadata management approach for a central digital repository of diverse digital objects. This study describes the rationale for the Task Force and the process used for its work following a look at the background of digitization and past metadata practices at CSU. **Patricia J Rettig and others, (2008)**[54]

Chat reference has presented a unique set of problems for referenceto the librarians. Lacking the visual and auditory cues of face-to-face or telephone reference interactions, librarians providing service for the virtual desk have developed digital techniques and resourceful maneuvers to help them navigate this new frontier. Still, many chat librarians find it difficult to conduct a meaningful transaction using just words, software components, and a mastery of online resources. Technical and communication problems further complicate their efforts. However, virtual reference librarians are rising to the occasion and engaging in exemplary chat transactions that conform to the highest standards of service. **Joyce Ward and Patricia Barbier, (2010)** [55]

Brynacoonin, Beth Filarwilliams and Heidisteiner, 2011 The concept of library as a place is now in action in many academic libraries from physical library spaces to Web presences. In the constantly growing market of online and distance learning, however, libraries must foster library as a place for students who may never set foot in the physical building. These libraries work to provide services to distance students that cultivate the library as a place to go for learning, research, and support by focusing on six categories: access, environment, resources, instruction, availability at the point of need, and "being real.**Brynacoonin, Beth Filarwilliams and Heidisteiner, (2011)** [56]

Bill Stockting (2004) discusses the attempt to tighten encoding practice found in the latest edition of RLG's EAD Best Practice Guidelines and how the theoretical practice suggested relates to the actual practice exhibited by the Access to Archives Programme (A2A). Consensus within the group developing the guidelines is seen to breakdown when it comes to the lower levels of the archival hierarchy and it is argued that archivists need to agree on content standards at these levels, as users are increasingly seen to search for archival material from the bottom up.[57]

Amy C York; Jason M Vance (2009) examined best practices for "embedded librarians due to the proliferation of online courses has led librarians to adapt their instructional techniques and follow teaching faculty and students into the online environment.[58]

AdeenPostar (2006) attempted to study best practices for Public Relations in law school and law firm libraries that can be used by libraries of all sizes and types to help enhance our image and promote the many services we provide to our patrons.[59]

Pam Dixon (2008) analyzes the privacy and ethics issues that authentication and access management in libraries raise, reviews applicability of the canon of Fair Information Practices for ethical guidance in library policies, and discusses best practices for libraries.[60]

Selenecolburn and; Laurahaines (2012) understand the ways that libraries are using YouTube for outreach purposes using a methodology adapted from studies in medical literature, the authors identified and analyzed library promotional videos on YouTube, both in relation to other works depicting libraries and librarians and as a unique category of content. In order to analyze the viewership of library promotional videos and its growth over time, view counts were compared at three points in time over a period of sixteen months.[61]

Summary

In this chapter existing literature reported by the stalwarts of library profession at national and international level pertaining to Academic Libraries (University Libraries), Library Services, different existing technologies and Best Practices adopted by the academic libraries are reported. As per the primary and secondary sources, there are large number of articles written and particularly in the Indian context, the studies on application of technology in university library environment is published mainly in the form of articles and results show the significance of innovative technology in the use of libraries and extending services has been strongly advocated.

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