## 2. REVIEW OF LITERATURE

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Chapter 2: Review of Literature

2.1 Introduction:

The phrase review of literature consists of two words Review & Literature. Meaning of Literature in research methodology refers to the knowledge of particular area of investigation of any discipline which includes theoretical, practical and its research studies. The term review means to organize the knowledge of the specific area of research to evolve an edifice of knowledge, to show that the study would be an addition to this field. The task of review of literature is highly creative and tedious because the researcher has to synthesize the available knowledge of the field in a unique way to provide the rationale for research study. It provides some insight regarding strong points and limitations of previous studies.

A comprehensive review of literature is an essential part of any scientific investigation. It gives an idea about the work done in the field and assists in the delineation of the study in hand by providing a basis for theoretical framework and an insight into the methods and procedures. It also provides significant methods for the basic interpretation and findings. The review of literature also eliminates gap within the area of subjects and that can direct scholar to fill up the gap for research work. Therefore, it is an essential work for the researcher to identify already available literatures to know the status quo of knowledge in the area of study. The survey of literature done by the researcher is in the pursuit of the present research problem that can facilitate the research problems and its objectives.

Literature review is an important step in any research study, and helps in building a strong base for presenting any study. The literature published in the area helps in avoiding duplicate research and also confirms the steps carried out in research. Literature review is an analysis of contributions made by others like authors, researchers, experts including technical specialists. It is a presentation of growth and development of literature in a particular field over a period of time which is useful for the development of the study. It suggests ideas based on the concepts developed by others. The very purpose of a literature review is to understand the experimented methods, techniques and skills of a phenomenon and its procedural presentation. This is believed to guide the researcher to formulate and identify the objectives,
hypotheses, methods for collection and analysis of data. Literature review enables the researcher to restructure, reorganize and recast the presentation in the light of work done at various levels. Therefore a literature review is considered as an integral part of research studies (Dahibhate, 2011).

According to Busha and Harter, “A literature search (or literature review) is an attempt to identify, locate and synthesize competed research reports, articles, books and other materials about the specific problem of research topic”

Basic aim and function of literature search is:

a) Provides a general understanding of subject.

b) Facilitates a clean understanding of the work done by others in a specific field.

c) Enables to know if a research topic is current and active.

d) Helps in finding out if research is being carried out and if to, who are working where the research is being carried out and on what facets.

e) Enables knowing successfully tested methods, materials and procedures on similar problems elsewhere.

f) Avoids duplication of research and promotes relay research as against parallel research.

h) Provides insight to the researcher in terms of the current status of the research at a particular time.

With this background the researcher has made an attempt to collect the related data published in different sources and presented a brief review in this chapter. The facets selected for the data collection were: research in Library Science, bibliography of doctoral thesis, trends and developments, growth of LIS research, research at post graduate level, LIS research carried at global/ international level, need and promotion of LIS research, scientific research in librarianship, research productivity and fusing research into practice etc.

The literature search on these topics and its related areas revealed hundreds of references. Although all these references were not directly related to the topic of
research. The researcher found them significant from different viewpoints. The review of literature on the theme and its various facets include research articles, review papers, books, proceedings of conferences on the topic and its sub-topics organized by national and international bodies, e-publishing including bibliographic databases electronic online information resource on internet as well as DELNET, EBSCO databases, J-gate, Indian Journals.com, Proquest’s ebrary, Gale Cengage Learning databases, RMIT etc. have also been utilized for the study. The open unbiased and original mode of thinking and impartial analysis and interpretation of available data have resulted in new insights to the problem. The data from Vidyanidhi, University news, LIS gateway are also isolated along with formal literature sources.

2.1.1 Vidyanidhi:
Vidyanidhi (meaning 'Treasure of Knowledge' in Sanskrit) is India's premier digital library initiative to facilitate the creation, archiving and accessing of doctoral theses. Vidyanidhi is an information infrastructure, a digital library, a portal of resources, tools and facilities for doctoral research in India. Vidyanidhi is envisioned to evolve as a national repository and a consortium for e-theses through participation and partnership with universities, academic institutions and other stakeholders. Vidyanidhi enhances access to Indian theses and enlarges the reach and audience for Indian doctoral research works. After careful listing only those theses were selected this specifically emphasizes on the term “Library and Information Science” and “Library Science”.

2.1.2 Library and Information Science Gateway:
The Library and Information Science gateway provides searchable and browseable catalogue of internet based resources related to LIS. It encourages the exploitation of publisher’s material by providing free access to quality web resources. It improves the effectiveness of internet searching and serves as a source of information for LIS people. The www.lisgateway.com, sponsored by UGC, India and developed by Dr. Masoom Raza and Monnawar Eqbal, Dept. of Library & Information Science Aligarh Muslim University, Aligarh, India. A research paper was published viz. Barnabas, S. & Suroshi, S. (2010). Research and Subject Gateway in Library and
2.1.3 Library of Congress Subject Heading (LCSH):
The classification of the subject of the theses has been done with the LCSH. The LCSH comprises a thesaurus of subject headings, maintained by the United States Library of Congress for use in bibliographical records. It facilitates to compile the thesis that pertains to similar subject matter. The purpose of LCSH is to provide subject access point to the bibliographic records and is a tool for subject indexing. The heading that involves two or more area of knowledge can be expressed. The heading most specifically describing the content of the theses title has been used.

2.2 Doctoral Research:
Kannapannawar, B.U. (1991) carried out a doctoral research work in his study entitled “Citation analysis of doctoral dissertations in library and information science accepted by the universities in Karnataka”. Researcher used citation analysis method and described the analysis of bibliographical references and citations which form part of a thesis. It is understood that citations in thesis, as a communication artifact establishes a relationship between the two documents, the thesis which cites and the article or book which is cited. The objectives of the study were to determine the characteristics of source of information, prepare rank list of journals in order of their frequency of citations, distribution of cited documents according to their country of origin and language, to study the obsolescence of literature in LIS, to apply Bradford law to literature of LIS, and to know the availability of cited material in university libraries of Karnataka state. Researcher observed that research scholars mostly depend on literature published in English language. As far a geographical distribution is concerned USA, UK and India are occupying top positions.

Chikate, R.V. (2010) carried out a doctoral research work entitled “Citation analysis of doctoral dissertations in Social Sciences submitted to the University of Pune during the years 1980-2005”. The thesis presents study of citations analysis of bibliographic references to understand subject relationship, author effectiveness, publication trends etc. The overall aim and objective of this study was to use the findings for optimum
utilization and effectiveness of collection in Social Sciences and also to manage an
effective periodicals collection at the libraries and information centre. With the given
scope and limitations of the study, it attempts to achieve the objectives and to know
the principle forms of the literature, to prepare the rank list of periodicals, subject-
wise distribution, to examine authorship pattern, find out the country-wise
distribution, language-wise distribution, identify year-wise distribution, publisher-wise
distribution of literature used in the doctoral dissertation in Social Science
submitted to the University of Pune. And finally to find out availability of the
literature used by the doctoral students at Jayakar Library. The following hypotheses
have been studied and tested while conducting research i.e. most of the Ph. D.
scholars prefer periodical literature as major source in the fields of Social Sciences. It
depicts that the major forms of literature is being used i.e. periodicals. Secondly, least
importance/weight age is given to other forms of literature by the Ph.D. students.
Books, reports, reference books, theses and the like publication consume much time
in bringing out the latest research work. It is therefore, assumed that most of the
researchers avoid publishing their research in form other than periodicals. Lastly most
of the Ph. D. scholars prefer the periodicals published from developed countries as
compared to developing countries. The study falls under ‘Use Studies’ which is sub-
class of “User Research”. The data required for the study are the references appended
with the theses of Social Sciences during the years 1980-2005. Thus, the data have
been presented in 75 table and 39 figures. For data collection, researcher identified
Ph.D. theses in Social Science viz. Library and Information Science, Philosophy,
Psychology, History, Political Science, Economics, Sociology, and Social Work, and
then photocopied the bibliography from the thesis. Accession Number of each thesis
was noted on photocopy and the sources in bibliography was identified by the forms
of literature using first alphabet of the word. Citations studies have also been made to
elicit various other useful information. It is revealed from the study, that tendency of
preferring periodicals by LIS research scholar with highest number of citations as
compared to books cited and websites. The declining trend of using reference books,
proceedings papers, reports, theses/dissertations, newspapers, interviews, pamphlets,
and manuscripts has been noticed while citing references. In the subject of Philosophy
it has been revealed that citations are from books and citations are of periodicals. The
study found that the Psychology researcher preferred periodicals over books. Very little difference has been noticed in the citation preferences of books and periodicals amongst the Political Science and History researchers. However, in the subject of Economics, books as well as periodicals are almost equally preferred by the scholars. The researchers from Sociology also preferred books & periodicals. The other forms of documents are preferred in descending order as manuscript, pamphlets, interviews, and websites. Almost similar pattern in Political & Science Social has been observed i.e. the researcher of social work also use books and periodicals are almost equal number. The researcher in Social Science used 12 forms of documents i.e. books, periodical, reference books, proceeding paper, reports, theses/dissertation, newspapers, manuscripts, pamphlets, interviews, websites, and government archives in their research work. Researcher in all eight subjects used periodicals and books almost similarly.

Phugnar, P.L (2012) carried out a doctoral research work entitled “Citation analysis of doctoral dissertations in Library and Information Science accepted by the universities in western India”. The present study is an attempt to analyze bibliometric citations which have been cited by researchers in LIS work during the period 1980 to 2010. The aim of this study was to track the research activities conducted in universities of western zone of India in LIS and assess the trends and to analyze the bibliographic citations which have been cited in doctoral dissertations by the research scholars from LIS in different universities located in western part of India. The objectives were to study the significance of citations as well as citation study and bibliometrics, to study use of different information sources, research areas/topics covered by researchers in western Indian university and find the trends in LIS research. It further stated to identify most cited sources, age of cited items, frequently cited journals and ranking, use of non-LIS resources, and identifies half life of periodicals, research growth and trends in LIS and compares it with the current developments in LIS and find out prominent research areas and the gap in research in LIS. The research methodology used to undertake the study was descriptive research method. Out of 36 universities in western Indian zone from three states viz. Maharashtra, Gujarat and Goa, and 21 non agricultural universities were covered under the survey. The universities are associated with UGC plan and since inception of LIS courses in universities around
152 theses have been granted till 2010. Thus the present study has covered different aspects related to its scope, coverage as compared to previous studies. The findings of the study are that, when the status of research is western Indian universities indicated, University of Pune ranks first for awarding doctoral degrees till the end of 2010 in western India region and thus Maharashtra state is at leading position. The research conducted in these universities revealed that academic library, information services, special library, information seeking behaviour, citation analysis, public library, ICT applications, digital library are the major subject areas covered by research from these states. Ranking of guides in this zone revealed that Dr. PSG Kumar stand first and reflected that new research guides are also included in the panel to manage increased load of research enrolment in the area of LIS. Nearly half of the citations are of journal articles (42.14%), followed by books (41.75%) and electronic media (5.06%). The prominence of language is English. Half life period of the journal citation for the present analysis has 88 years. The majority of citations in thesis are having single-author works. The graphical presentation of Bradford’s law of scattering has been applied to citations in the present study. The research concludes that there is a potential for improving LIS research using citation studies. The best practices in LIS research can be achieved by sharing the research work with other LIS professionals through publications and online data. This helps in increasing research culture. However it is felt that there is a need to consider use of bibliometric and citation studies to analyze different issues faced by library profession.

A number of works have been carried out with regard to the role of Research on Library science at national and international level.

2.3 Studies at International level:
Neelameghan A (1967) in the paper “Research in library science: its needs and promotion” aims to provide a review of recent trends in the open access (OA) movement, as well as to discuss the significance of those trends for information access in developing countries.

Patra, Swapan Kumar and Prakash Chand (2006) in “Library and Information Science Research in India : A bibliometric study ”presents a bibliometric study of LIS
research literature emanating from India based on the data abstracted in Library and Information Science Abstract (LISA). Standard bibliometric techniques are employed to analyze the collected data and accordingly get indicators. Bradford’s law of scattering is used to identify core journals of Library and Information Science where in Indian authors publish their research output. To understand the productivity pattern of authors Lotka’s law has been applied. The identified core journals are mostly published from India. Indian author’s contribution in international journals is very low. A list of authors who have published 10 and more papers during 1967-2004 is drawn and presented. Such authors are 37(1.35%) in number and authors with single publication have major share (74.63%). The authors productivity pattern in conformity to Lotka’s Law.

Gdoura, Wahid (2008) in “North African research tendencies in Library and Information Science: the theoretical and the empirical” aim’s to study the evolution of research activities in the field of LIS in North Africa in relation to changes in the information sector, and to analyze the basic characteristics of scientific production within the information area. A rough reading of Arabic literature in the field of librarianship shows that the volume of this literature remains modest and that its content is mainly characterized by the predominance of empirical studies and the almost total absence of theoretical and methodological studies. The effort of theoretical thinking is still put aside despite its being important for the development of the new science of information. The interest is more on how to solve technical problems than on methodological and theoretical questions related to the information field. It is because of this that ambiguity remains over some fundamental concepts, research topics and Arabic language terms. It appears that some studies by Arab researchers are marked by the mechanical ‘transplantation’ of concepts without considering their cultural and historical context and roots.

Moahi, Kgomotso H (2008) analyzed in “Library and information science research in Botswana: an analysis of trends and patterns” LIS research in Botswana that has been published since 1979, when the library school at the University of Botswana was established. The period considered is from 1980 to 2006, a period of 27 years. The paper linked research and publication trends with the historical, social and cultural
factors in Botswana. The conclusion is that Botswana has a relatively young history of library and information services, as well as library education; that the research activities have not been informed by a research agenda; and that there has not been significant collaboration between practitioners and academics primarily because for practitioners, research and publication is not viewed as essential to their job progression. Research skills are very crucial for empirical research, and the fact that most research activities have been descriptive may point to some deficiencies in that regard. Other factors that impinge on research have been identified as lack of funding, lack of time, and research that does not necessarily address the issues and challenges of the profession in Botswana. The paper concludes by providing recommendations on what needs to be done to address the current situation. Adapted from the source document.

González-Alcaide, et.al. (2008) identifies in ‘Library and information science research areas: Analysis of journal articles in LISA” the main fields of research in Library Science and Documentation are by quantifying the frequency of appearance and the analysis of co-occurrence of the descriptors assigned to 11,273 indexed works in the Library and Information Science Abstracts (LISA) database for the 2004–2005 period. The analysis made has enabled three major core research areas to be identified: World Wide Web, libraries and education. There are a further 12 areas of research with specific development, one connected with the library sphere and another 11 connected with the World Wide Web and internet: networks, computer security, information technologies, electronic resources, electronic publications, bibliometrics, electronic commerce, computer applications, medicine, searches and online information retrieval.

contributions to literature on the basis of gender; type of research; language of the article and publication output of PLISJ. Results of the study are compared to previous studies conducted by Khan, Moinuddin and Samdani, Rais Ahmed in their study entitled "Library Resources and Publishing: 50 years analysis" published in Pakistan Library Bulletin Volume 28 issue No. 4, December 1997. This study was analyzed the literature published in Pakistan Library Bulletin (PLB) during 1968 - 1997. In the present study some recommendations are given for the advancement of LIS research in Pakistan.

Patra, Swapan Kumar; Chand, Prakash (2009) reports in “Library and Information Science Research in SAARC and ASEAN Countries as Reflected through LISA” the result of study of Member countries of SAARC and ASEAN (have a long history of LIS education and research. This study compares LIS research output in member countries of these two associations, using LISA (Library and Information Science Abstracts) data. The study focuses on the pattern of literature growth, core journals, authorship pattern and research trends. The study found that SAARC countries are ahead of ASEAN members. India is leading among SAARC countries and Singapore among ASEAN countries. As per LISA, both groups have marginal contribution in international journals and therefore, core journals are of Asian origin only. The results of study call for more collaboration among the member countries of SAARC and ASEAN. It also identifies the need for formulation and implementation of information policy similar to that of Singapore among member nations of both the regional associations.

Mukherjee, Bhaskar (2010) in the paper “Assessing Asian Scholarly Research in Library and Information Science: A quantitative view as reflected in web of knowledge.” highlights the quantitative performance of scholarly LIS research in Asian countries based on articles published during 2001-2007 in journals indexed by the Social Science Citation Index of Web of Knowledge. The quantitative performance of Asian countries has been judged and compared on the basis of various quantitative indicators: (a) size of scientific activity measured by volume of production in various types of publications during the period of study, (b) authorship pattern and collaboration of scientific activity measured by co-authorship and the
amount of national and international collaboration, (c) the pattern of citations measured by counting the cited and citing references of published articles, and (d) a newly developed metrics-research performance. The results show that during the last seven years, the publication rate has increased two fold and, among the Asian countries, the authors of the People's Republic of China contributed the greatest number of articles, followed by Taiwan and South Korea. There is also an increasing trend toward collaborative research among Asian authors, with most of the collaboration occurring either among authors from the same country or with authors of non-Asian origin. The research performance analysis indicates that articles written by authors from South Korea received the highest number of citations, followed by Taiwan. Although the quantity of articles published by authors of Taiwan and South Korea is higher than Singapore and Israel, the articles contributed by authors from these latter two blocks appear in higher-impact journals. These findings show the increasing contribution made by Asian scholars to the international LIS literature, and the quality of that research.

Obaseki, Tony and Salisu Dasuki Ibrahim (2010) states in “Scientific Research in Librarianship: A Panacea for library development in Nigeria” that research in librarianship is a core aspect of library education and any library school programme. Research is the arrival at a dependable solution to a problem through collection, analysis, and interpretation of data. By implication the advancement of a discipline is based on the strength, types, and outcomes of research carried out and how these findings are judiciously put to use.


Samdani, Rais Ahmed and Bhatti, Rubina (2011) elaborate in “Doctoral research in Library and Information Science by Pakistani professionals: An analysis” creation and
dissemination of research is central to the growth of any profession. Library and Information Science is no exemption. A considerable amount of emphasis has been placed by many library experts and professionals towards the creation of research culture among LIS community. Doctoral research in LIS in Pakistan was started in 1967 from the University of Karachi. Interview responses indicate that during these five decades, very few LIS professionals got involved in PhD level research activities due to number of factors i.e. inadequate opportunities, poor facilities, lack of any incentive and training for research activities, over-worked and lack of interest from higher authorities, poor status of LIS professionals in the eyes of other faculty members related of other fields in all academic institutions of Pakistan

2.4 Studies at National level:
Kumar, Shailendra and Sharma, Ravinder Kumar (1987) in “Research work at post-graduate level in Library and Information Science – dissertation study of Delhi and Punjab University” elaborates the research in LIS which starts with master’s degree programme with the objective of educating and training the personnel to function in senior professional capacities in libraries and information centres. This article further analysis the M. Lib. Sc. dissertation works submitted up to 1983 to Delhi University & Punjab University since their inception. Strong and weak areas of research in terms of subject and research trends in the field have been dealt with. Further, discusses the need to communicate outcome of the research to the actual users.

Chatterjee, Amithabha; Prabhash Narayan Rathand Ashok Poddar (1995) in “Research trends in Library and Information Science in India” carried out the analysis of trends of Ph.D. level research work in LIS and related topics in Indian universities since the award of first Ph.D. degree in 1950 showed that the years 1984-88 were the period of maximum growth in research, and the most popular subject had been academic libraries .The LIS Department of Karnataka University is the most productive school in the field. The paper has suggested some measures to prevent possible dilution of research work in this subject.
Lahiri, Ramansu (1996) studied in "Research in Library science in India 1959-1995: An account of Ph.D. programmes" about the research programmes in Ph.D. in LIS carried out in India during 1950-95 have been analyzed to find out the areas of research, types of work, growth pattern and productivity of the universities.

Tejomurthy A (Late) adopted by PSG Kumar (1998) in the article "Research in Library and Information Science" briefly describes the research, its need and history, etc in LIS, briefly means the collection and analysis of original data on a problem of librarianship done within the library schools according to scientific and scholarly standards. It also presents the pattern and state-of-the-art of research in LIS in India. The reasons for slow growth in research in LIS in India and scanty financial support to it have been explored. Several suggestions to catalyze the research activities in LIS in India have been given. It concludes that there are research opportunities and research atmosphere in India and the library professionals and LIS faculty should be involved in research to improve information sources and services.

Manjunatha, K & Shivalingaiah (1998) in "Library & Information Science research 1987-1997: A decade of development" carried out and studied the ongoing research work in any subject field and showed how it provides valuable information about the current trends and future directions of the field. Further analysis of theses accepted for award of Ph.D. and research in progress in various Indian universities from 1987-1997 trying to provide foundation for examining the performance of LIS research. Presents the result of the study with the goal of broadening the perspective of the LIS research community and to help them to debate on the nature and proper direction of the research.

PSG Kumar (1998) in the paper "Doctoral studies in Library and Information Science in India: A study" provides statistics of doctoral research in India. The data of the doctoral research in India has been analyzed chronologically, subject-wise, guide-wise, and university-wise. It further states that universities are demanding a doctoral degree for LIS faculty as well as for professional seniors in university and other
higher education and research libraries. This led to increased research activity at various library schools in India.

Satija, M.P (1998) reports in “Whom do we serve? Doctoral research in Library and Information Science in India” that discovery and dissemination of new knowledge has always been a source of excitement and incalculable social benefit to the society. Tremendous progress made by the mankind in the 20th century is only due to research and new information. Information society subsists on information which is only generated by research. This article briefly describes the beginning, growth of doctoral research and proliferation of education in LIS in India. Author's views on the status and quality of research in LIS in India have also been given.

Verma, Prabha and Shailaja, N L (1998) in “Bibliography of doctoral theses in Library and Information Science in India” presents a bibliographic compilation of 292 doctoral theses conferred in the field of LIS in India. Categorizes the theses according to subject, indexes them by name of the doctoral candidates.

Satija, M.P (1999) in the article “Doctoral research in Library and Information Science in India: Some Observations & Comments” gives a state-of-the-art overview of LIS education in India as a background to reviewing the doctoral research in the field. It traces the origin and growth of Ph.D. programmes in LIS in India and highlights the initiative and efforts of Dr S. R. Ranganathan (1892–1972). The article provides annual data on the quantitative output of LIS Ph.D. theses and ranks major Indian universities by their output. It includes lists of the major areas of research and identifies some arid areas. The author laments the irrelevance and lack of use of research results in library schools and libraries. He attributes this to a low quality of research work because of a mindless proliferation of programmes and a lack of co-operation and resources for research.

Kannappanavar, B.U and M. Vijay Kumar (2000) in “Fifty years of LIS research in India: trends and developments” trace the trends and developments of LIS research in India for the past 50 years. The year 1992 is the most productive year for research
output. Planning and management is the most favoured area for research by LIS researchers followed by user studies and bibliometrics. Karnataka University and its research guides are most productive in the field.

Mahapatra, R.K and Jyotsna, Sahoo (2004) in “Doctoral dissertations in Library and Information Science in India 1997-2003: A study” carried out a research work about research programmes at the Ph.D. level in LIS carried out in India during the seven years (1997-2003) have been analyzed to find out the trends and areas of research, growth pattern and productivity of universities along with broad and narrow subject areas in the discipline. Presents the analysis of the study with the primary goal of appraising the perspective LIS research community to make them aware of the direction of research.


Kumbar, Mallinath and Raju, Vasantha (2008) investigated in “Research productivity in Library and Information Science in India during 1957-2006”. Research productivity is based on Ph.D. theses submitted to various Indian universities since 1957 presented in this article. Doctoral dissertation is one of the indications of research productivity.

Soma Raju, P. (2008) in “Research in Library and Information Science” has made an attempt to review the research work done during 1985-2005. It also gives a glimpse of the work done earlier. It aims to provide an insight, the growth trend of research work by state, university, research guide and subject wise. Every effort has been made to throw light on significant aspects and finally offered some feasible suggestions.

Chikate, R. V. and Dr. S. K. Patil (2008) in “Citation analysis of theses in Library and Information Science submitted to University of Pune: A pilot study” carried out research work on citation analysis which is shown to be a worthwhile area of
"Citation analysis" refers to references in one text to another text, with information on where that text can be found. Citation analysis is useful for understanding subject relationships, author effectiveness, publication trends, and so on. Citation analysis is a major area of bibliometric research, which uses various methods of citation analysis to establish relationships between authors or their work.

Chandrashekara, M; Ramasesh, C.P. (2009) in the paper “Library and Information Science research in India” clearly projects with relevant statistical tables the output of doctoral research in India. Attempt is made to depict quantity of research output in the form doctoral theses, state wise, university-wise, topic-wise and supervisor-wise. Also indicated are the areas of research activity in LIS with ranking of universities and states which have contributed comparatively more to field of LIS research in India.

Shivalingaiah, Sheshadri D.K.N, and Manjunatha Keralapura (2009) in “LIS research in India 1980-2007: An analysis of doctoral dissertations” has carefully analyzed the bibliographic details of doctoral degrees (PhD) awarded by Indian universities in the field of LIS during 1980 to 2007. The data required for the study was obtained from four sources namely INFLIBNET, Vidyanidhi, University News and a web-based survey. The authors browsed on-line databases of doctoral dissertations developed by INFLIBNET and Vidyanidhi. The back issues of University News (an official weekly newsletter of Association of Indian Universities, New Delhi) were scanned for the purpose. Further, a web-based survey was conducted for obtaining data from LIS professionals. The web-based questionnaire was mailed to LIS professionals through e-discussion forums like Lis-Forum, NMLIS, IATLIS and Corporatelib. Academic and public libraries are the most researched libraries. Information seeking behaviour, bibliographic/ bibliometric /literature study, and LIS education are most popular subject areas of LIS research. The other subject areas like measuring service quality from customers perspectives, technical skills required for of LIS professionals, awareness and familiarity with open sources, level of utilization of open sources, tools and techniques of digitization, and metadata harvesting call for attention of LIS researchers/academicians.
Kumbar, Mallinath and Harinarayana, N. S (2009) in the paper “Growth of Library and Information Science research in India during 1957-2007: A study” studied five decades since the first research degree leading to PhD in LIS in India was awarded. It collected and analyzed the data of all the theses in LIS submitted to Indian universities from 1957 to 2007. Most active research departments and research supervisors were identified. Karnataka is found to have produced more PhD theses than any other state in India. Bibliometric is the most attracted field for researchers.

Madasamy, R. and Alwarammal R., (2009) “Doctoral degrees in Library and Information Science in India during 2003-08: A study” analysed and revealed the data on doctoral degrees awarded in LIS during 2003-08 was collected from University News. Further it states that that Andhra Pradesh has produced the higher number of PhD during the period and information sources and services, user studies, library management and bibliometrics are the leading subjects areas on which most of the research has been carried out. Concludes that more doctoral needs to be carried out in the areas of digital libraries and ICT applications.

Garg, Ram and Tamrakar (2009) in “Doctoral research on academic libraries and allied fields in Indian universities: A bibliometric study” studied the craze for PhD in Library Science is growing rapidly in India, the main reason being that today most of the universities are demanding a doctoral degree for LIS faculties as well as for senior professionals in university and other higher educational and research libraries. This led to an increased research activity at various library schools in India. The present study investigates the rate of successful doctorates awarded by the Indian universities in the field of academic library. The data of the doctoral research in Library Science in Indian universities has been analyzed chronologically, subject wise, guide wise, university wise and language wise.

Satija, M.P (2010) in the paper “What ails doctoral research in Library and Information Science in India? ” discusses research in LIS in India. It delves into the history of LIS research crediting the institutionalization of research to Ranganathan. While presenting the growth of the research, the article discusses the factors
responsible for poor standards. It also provides an international comparison by citing examples at places.

Rana, Reshma(2011) in the paper “Research trends in Library and Information Science in India with a focus on Panjab University, Chandigarh” attempts to provide a comprehensive review of research works in the LIS discipline in India during 1957–2009 in order to identify trends and patterns in doctoral research, both at the national level and within the DLIS, Panjab University, Chandigarh (PU).

Wagh, Sanjay (2011) in “Research in Library and Information Science in India” analyzed the research a program of Ph.D. in LIS is carried out in different universities in India during 2004-2008. The paper finds out the areas of research receiving more attention or less attention, growth pattern, productivity of the universities and supervisors.

According to Dhiman, Anil Kumar (2011) with the onset of globalization and industrialization, the demand for LIS professionals is increasing. Likewise, LIS education is also improving their standards by making more and more researches in this area. The present paper attempts to quantify the research contribution made by LIS students in the LIS research area based on University News data.

From the different reported studies which researcher could retrieve from different sources found the LIS research in prominent area and increasing the research activity. Similarly it is also found that the concept of LIS research and trends in ICT implication selected by the researcher is not reflected in any of the study and has found to be different from previous studies. The literature is also helpful in drawing different concepts in different chapters of this research study and support the opinion.

Summary
From the literature review it is found that the current topic selected by the researcher is different from the studies conducted earlier. However it not noticeable from the literature search that any studies relating to doctoral research in India and how the
research can remould in the changing environment have been conducted. There are
studies like doctoral theses submitted to different universities, LIS education in India,
challenges for library professionals, digitization of ETDs etc., but need based analysis
has not been discussed elaborately. There is a need to anticipate practical problem by
conducting research and apply appropriate solutions to improve professional services
and multiply them by sharing with professional colleagues. The study was also
conducted to access the applicability of the research work, the practical problems
faced by the LIS researchers and views on LIS research in India. It is resolved to trace
out the gap between the LIS researchers and the quality of research work. Further, due
to revised LIS curriculum, advancement of ICT and promotional avenues a global
view can be rendered and it becomes responsibility of LIS Professionals to take up
research and uplift librarianship to the greater heights.

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