CHAPTER 2

REVIEW OF LITERATURE

2.0 Introduction:
The purpose of a review in any subject is to analyze a segment of a published body of knowledge through summary, classification, finding/suggestion and comparison of prior research studies, reviews of literature, and theoretical articles. As compared to any other field, in the field of library and information science to a review of literature is carried out to know the existing body of knowledge.

The review of literature assist the researcher by exposing the available related literature in all form (print and non-print) relevant to the research topic and gives an idea that how the present research work is different from the earlier works. In this study review of literature is undertaken to know the findings of similar studies carried out in the past by referring to various conventional and electronic sources of information such as books, journals, thesis, book reviews, indexing and abstracting databases such as Library and information Science Abstract (LISA), Scopus, J-Gate and Indian Citation Index (ICI). The review has been grouped and presented under the following headings

- Awareness and use of e-resources and Search strategy
- Information Literacy
- Information Literacy Skills and Competencies
- E-Information Literacy

2.1 Awareness and Use of e-resources and search strategy:
A statistically significant relationship was observed between computer literacy and the use of electronic information sources and services of teachers by Majid and Abazova (1999). According to them computer literate academics use electronic information sources more frequently.

Godwin (2005) in his study on ‘Making life easier for academics’ describes how information literacy help academics to improve their awareness and skills for academic growth. In regard to search and retrieval of e-information Laurie (2005)
points out that specific new literacy skills and strategies leads to successful access to information on the Internet. Nazim & Saraf (2006) in their study on ‘Information searching habits of Internet users: A users’ study of Banaras Hindu University’ found that fifty percent of respondents search information through the search engines and thirty-five percent by visiting specific website/URL.

A survey conducted by Nazim (2008) to determine the extent to which Internet users are aware and make use of the Internet resources and services at Aligarh Muslim University revealed that even though Internet search engines were the preferred information searching tool, other methods such as databases, gateways and World Wide Web (WWW) were also widely used by the Internet users. Another study on the students’ level of digital literacy and different search strategies revealed that male students are more aware and make best use of the information sources available in the university than that of female students (Emmanuel & Fyneman, 2009).

Kattimani & Kamble (2010) in their study on awareness of internet and online information resources reflect on use and access of internet and online information resources by software engineers by focusing on variety of sources of information. To know the level of awareness of faculty members and utilization of the library databases and other electronic information resources within and outside the libraries.

Moin & Panda (2013) conducted a survey of the faculty members of Indian institutes in Dubai International Academic City (DIAC). The findings of the survey found that majority of the faculty members are aware and make use of the electronic information resources. The study also revealed that to some extent there is lack of knowledge regarding use of libraries specific resources such as e-thesis, patents and CD-ROM database and suggests librarians-faculty collaboration for integration of information literacy skills.

In a similar study to know the extent of use online academic databases by the university teachers and researchers showed that 73.5% of respondents use online academic databases as an important source of information. Further the analysis of group differences revealed that with respect to gender, level of education and
academic title, users had relatively uniform perceptions regarding online databases (Dukic, 2014).

To evaluate awareness and user needs of aspects of evidence-based medicine (EBM) resources in a medical field a study by Baikady & Jessy (2014) at KMC, Manipal revealed that resources such as ‘UpToDate’, ‘PubMed/Medline’, and ‘MD Consult’ are the users preferred sources and clinicians possessed greater awareness of several EBM resources subscribed by KMC health sciences library

2.2 Information Literacy:
In the year 1983, in an article in the ‘Bulletin of the American Society for information Science’, Hortin referred to computer literacy, then to information literacy. He related computer literacy to increase ones understanding and use of the computer's against enormous potential in the information age and information literacy to increasing ones awareness of the knowledge explosion and how computers can identify and obtain data for such problem solving and decision making condition.

Breivik & Gee (1989) in their book on ‘Information Literacy’ focused on the role of the academic library in developing lifelong learners in the search for educational excellence in the information age. This book provides a visionary blueprint for librarians, presidents, and educators concerned with satisfying the growing information needs by focusing on three primary missions of higher education: teaching, research and service. Eisenberg & Berkowitz (1990) in their study presented Big6 Skills Model of Information Problem Solving from multiple perspectives. The Big6 is a six–step process which includes steps viz.- task definition, information seeking strategies, location and access, use of information, synthesis, and evaluation of information.

Doyle (1992) published the results of a Delphi study on information literacy and expanded the definition of information Literacy - as the ability to access, evaluate, and use information from a variety of sources. Further defines information literacy in terms of attributes of a person i.e. recognizes that accurate and complete information is the basis for intelligent decision making, recognizes the need for information,
formulates questions based on information needs, identifies potential sources of information, develops successful search strategies, accesses sources of information including computer-based and other technologies, evaluates information, organizes information for practical application, integrates new information into an existing body of knowledge and uses information in critical thinking and problem solving.

Kuhlthau (1993) published a research into the information-seeking behaviors’ of students, noting that information literacy is not a discrete set of skills but rather a way of learning and proposes an uncertainty principle for information seeking. The principle is proposed to explain the constructive process of information seeking and use bringing affective considerations to what has usually been regarded as a cognitive process. The principle is based on the results of a series of studies conducted by the author into the user's perspective of the information search process.

Ryan & Capra (2001) presented Information Literacy Planning Overview (ILPO), which shows combination of many facets of information literacy’s such as critical thinking, problem-solving and use of information technology into planning of document by supporting teacher-librarian’s collaboration for the free flow of information. This program advocates integration of information literacy into the curriculum, encouraging the development of a common language across year levels and subject areas. By adoption of such problem-solving approach, plagiarism and regurgitation of information make way for creative and original thought.

Bawden (2002) differentiated the concepts of "information literacy" and "digital literacy" as information literacy is based largely on specific skills, but have some extension beyond them whereas, digital literacy based on knowledge, perceptions and attitudes, though reliant on the simpler skills-based literacy’s. Related concepts, including computer literacy, library literacy, network literacy, internet literacy and hyper literacy were also discussed, and their relationships elucidated.

Ballestra (2003) in his study on E-learning and information literacy reported how e-learning information-literacy courses with hands-on IT experience (blended learning)
are useful for the students and makes use of specially devised "e-books" - a learning tool to know online research in bibliography, law, economics and statistics subjects.

**Bundy (2004)** in his book ‘Australian and New Zealand Information Literacy Framework principles, standards and practice’ has described the curriculum components and assessment about information literacy programs, its framework and standards applicable to various Australian and New Zealand academic libraries.

Further, **Shiuan (2004)** attempted to analyze the association between information literacy and university library for fruitful success of information literacy line up by highlighting other related issues like assessment of university students' information literacy skills; information literacy and learning; difficulties with improving information literacy skills in students; the role of university libraries in information literacy instruction for better ways of providing library instruction in university libraries.

**Hu (2005)** defined Information Literacy as the integration of the ability of how to discover, analyze, organize, disseminate and create knowledge and suggested three layers in information literacy viz- idea, technology and content.

**Mir-Jalili & Hossein (2006)** discusses various concepts of literacy in the past and at the present communication and technology age such as library literacy, computer literacy, network literacy, media literacy, and information literacy and also explores the changing nature of literacy due to ICT development.

**Varalakshmi (2007)** focused on information models suitable for higher education environment in India and suggested three types of different models destined for trainers, under graduates and post-graduates and necessary measures for its applications.

**Ching (2008)** investigates undergraduate students’ perception level of information literacy and their performance by focusing on areas of library literacy and internet literacy. The results showed that undergraduates' perception of information literacy
was different through inquiry learning. For information locating, students found that there were various channels to access appropriate information. However, they were still not yet familiar with using electronic databases. For information use, undergraduates could not perform well on summarizing information, but they knew how to cite information correctly. Further Shaheen and Azura (2008) provide an overview of a number of documented information literacy standards, guidelines and propose several recommendations for effective outcomes.

Pinto (2010) conducted a survey of students, teachers and librarians holding various degrees in social sciences and humanities at Spanish and Portuguese universities which illustrate four categories of information measurements viz.- information search, assessment, processing and communication/dissemination of information and three self-reporting dimensions viz.-motivation, self-efficacy and favorite source of learning.

Venkataramana (2012) explains the concept of Information Literacy (IL), discusses the need and importance of IL, highlights the IL competence standards for higher education, IL initiatives at global level and emphasizes the urgent need for the development of IL programs in Indian higher education system.

To analyze the effect of information literacy programme for law students Wijetunge & Manatunge (2014) conducted a survey which states that by following the information literacy programme, the students received declarative knowledge on a variety of tools and techniques required by them useful for their academic success. It also determined that, several critical success factors other than an appropriate curriculum are essential for an IL program to thrive.

2.3 Information Literacy Skills and Competencies:

Irvings (1985) has highlighted the importance of information skills for students in completing classroom assignments and further assess that such skills are essential for overall aspects of life-academic, professional, and personal development. Further, Akkoyunlu & Kurbanoglu (2002) stress on the importance of teaching of information literacy skills to the teachers within an information rich society.
Singh (2003) conducted a survey to assess the faculties’ perceptions of the students’ information literacy skills as defined by the Association of College and Research Libraries (ACRL) standards and found that most of the faculty reported that most of their graduate students met the ACRL criteria and further suggested for emphasis on consistent improvement in students’ research process after receiving library instructions. Further, in order to assess teachers’ information skills Farmer (2003) conducted a study which describes the efforts made by university to help its stakeholders to become information literate by the use and application of an interactive online instructional resource. Supplementary to this study, Dickinson & Witt (2003) highlighted importance of teacher education programs consisting of combination of information literacy pre-test, a self-paced open source web tutorial, traditional library instruction sessions, one-on-one student-librarian consultations with student teachers and a collaborative course designed for all. The overall goal of this program is to improve librarian-teacher cooperation through instruction in the information literacy skills outlined in the Information Literacy Competency Standards for Higher Education by ACRL.

Judith & Saunders (2004) differentiate information skills and computer skills and concluded that both the skills are different from each other. Caroline (2006) characterize "generation Z" as a teaching tool for teachers skills and use of digital technology by the teachers. Further Susan (2007) discussed the results of a quantitative study that measures the students' information literacy skills in order with teaching of necessary skills by the school and whether teacher-librarians had agreed-upon best practice model or not.

Montelongo & Brar (2008) study on information literacy skills for education students highlights on the "one-shot" library sessions created for a research class of students which involves the components like university library's resources, teaching information literacy strategies and skills.

Balasubramani (2009) identified the skill attainment in locating, selecting, organizing and interpreting the information in a way it could be most effectively
extracted and used by the B.Ed. class pupils and suggested the need of sufficient training to improve the user's skills.

To know the Information literacy in Indian agricultural universities Sharma (2010) undertaken a study for Punjab Agricultural University which recommended that collaborative approach of librarians and teachers should be encouraged to improve information literacy skills amongst the users. The study also recommends that librarians have to play a vital role by organizing information literacy programmes frequently for their stakeholders. To create awareness of the resources and search strategy, Pant (2010) in his book ‘Literature Library Classics and Information Science’ thoroughly discussed Search Strategies, Tools and Resources (ST & R) issues of information literacy and suggests that these activities enable the users to become self-sustained seekers of information resources.

Joshi (2011) in her study on information literacy competency of science, engineering and technology students of higher education institutions in Delhi found that though there is huge amount of information is available, but finding, retrieving and using it effectively is a big challenge for the university students. The study recommended for proper assessment of information literacy competency of such students needs to be measured in order to find out the baseline for their information literacy.

To identify the information literacy skill among the research scholars of universities in Kerala, a study was conducted by Vasudevan (2013) which reveals that e- Journals are the most useful source of information for them and majority of the research scholars are of the opinion that it is important to study the concepts of information literacy/skill to know the different sources of information useful for their research activities. In the same year a survey on Information literacy competencies amongst post graduate students was made by Sivakumar & Lawrence (2013), the survey result revealed that 88.5% of the students use correct search words from database and have literacy on e-databases, majority (88.5%) of the students are able to identify correctly the citations of journal articles; further majority of them are aware of the quality of the internet information sources and has the ability to evaluate internet information.
2.4 E-Information Literacy:

Towney & Barclay (1996) in a book on e-information literacy describe the ways of teaching and training of e-information for library users in an electronic environment. Further to determine the perceived level of importance and to know information literacy competencies required by the professionals for getting electronic acquisition and dissemination of e-information, a study was undertaken by Kawasaki (1996) which reports that professionals need not only training to gain electronic information literacy competencies but also encouragement to use information in an electronic format.

Selim (2003) evaluated through TAM technique the critical factors that guaranteed the success of the web-based learning paradigm in improving academic performance of the students. The critical success factors were found to be: i- cognitive e.g. e-literacy, communication skills, ii- pedagogic e.g. creating interactive course website, iii- IT facilities, iv- administrative support.

In addition to this, to develop typical electronic information literacy schemes useful for the teachers, Holmes (2003) suggests thorough information about University of Washington Information Literacy Learning (UWill), a set of digital learning objects designed for faculty to teach information literacy teaching program at university level. In this direction, Cardwell & Madigan (2004) conducted a case study under the theme ‘Promoting eLiteracy’, which reflected collaborative partnership between library and faculty for the development of transferable skills. In the same year Mountifield (2004) conducted a survey at the University of Auckland Library which supports e-Literacy skills development briefing necessary infrastructure for the functional integration of the information and the technology services. Same kind of survey by Secker & Price (2004) suggested for the use of e-learning essential for academic staff, which is to be information literate and propose a variety of approaches to support the development of appropriate skills. Warlick (2004) in his book on e-literacy focused on adaptation of new e-literacy skills rather than traditional literacy skills useful to all kinds of users.
Beatty & White (2005) study on e-literacy reflected on use of information literacy skills and/or technical literacy skills or “e-lit skills”. To promote the free flow of information and ideas, a case study of users undertaken by Taha (2006) at UAE University Library, which presents a model aimed at streamlining e-services and e-resources for virtual users in ICT environments through exposure to components like Information technology (IT) environment, e-literacy, awareness services and library IT facilities. The research reveals the need of continuing training and development, e-literacy and communication skills are the basic requirements of users simply called to be IT literate.

Further Mahapatra (2006) in his study discusses the various aspects of e-information literacy, impact of e-learning on distance education by recommending pivotal role of Library and Information Science (LIS) professionals in spreading of e-information literacy program at every sector of the society. In addition to this to assess and guide health science related e-information for teachers, Lene (2006) written a descriptive paper on project ‘BibTeach’, the teachers’ electronic toolbox, an internet-based teaching material for teachers.

Similarly in India a survey was conducted by Maharana & Mishra (2007) on Digital Information Literacy of Faculty at Sambalpur University for the promotion of digital information literacy. Faculty members expressed their need for electronic information in addition to traditional print sources. The use of e-journals, e-articles, e-theses/dissertations and e-databases etc are found to be more popular to update their knowledge in the respective subject areas. The study recommends for initiation of library in promoting digital information literacy programme to educate the faculty members at the university level. In the same year with regard to use of online technologies by teachers, Keith (2007) conducted a study, which introduces five free and relatively new online literacy sites that can be used by teacher-librarians, viz. Gliffy (gliffy.com), Google Docs and Spreadsheets (docs.google.com), NewsMap (muti.co.za/static/newsmap.html), OpenOffice (openoffice.com), and del.icio.us (del.icio.us).
Supplementary to this, a study by Devi & Shanta (2007) discussed the terms-electronic information literacy and e-network learning and highlight on nationwide network of e-learning communities and respective literacy rate in the North Eastern region of India. Chaminda (2008) conducted a separate gap analysis study on user perceptions and expectations on e-information literacy development programmes of postgraduate students of the University of Colombo and found three impediments to develop the service such as staff attitude, lack of mentoring and high customer demand and suggest that leaders in the e-information service should take responsibility for overcoming the impediments to serve their customers more effectively. Lilia (2008) narrates how Google Docs and Custom Search Engines (CSEs) have been used in Library research and also interactively teaching of information literacy through web 2.0 applications for the users of the university library?

Further, Simone (2010) investigates on the new landscape of online information literacy tools by embedding resources into course management software and specific academic organizations websites using ICT equipments.

Golwal (2012) in his book ‘E-Information Literacy: A State of Art’ specified E-Literacy and Information Literacy are different but mutually compatible concepts with validity within specific contexts and concluded that information literacy is a key component and contributor to lifelong learning. Further, to explore the status of information literacy skills of university students, Kaur & others (2012) conducted a case study of Guru Nanak Dev University, Amritsar. The study shows that majority of the respondents possess knowledge of MS-office, social networking sites and e-mail. Six types of internet searching tools, search engines and wikis are the most common internet platform; while blogs, online bibliographic databases and subject gateways/portals are less frequently used.

In addition to this case study, an analytical survey was carried out by Konappa (2013) to know Digital Information Literacy (DIL) among research scholars at Sri Venkateshwara University, Tirupati. The study revealed that majority of respondents use e-information for varying purposes such as to update their knowledge in their field of interest, research task and for publication of scholarly articles. Halder (2013)
in a chapter entitled ‘E-literacy and LIS Professionals’ focused on role of LIS professionals in promoting electronic literacy and highlights on the role of Government bodies, professional organizations /associations and schools towards enhancement of e-literacy.

Summary:
While reviewing through all above literature the researcher has noticed that no study illustrates the perception, diffusion, investigation, expectation and awareness of university teachers in the context of e-information literacy and e-search strategies at university level, hence the present study is undertaken. The major components covered in the study with regard to perception, diffusion, investigation, expectation and awareness of university teachers towards e-information literacy are awareness and use of different types of e-information required by university teachers, its preference for various purposes, impact of e-information on their research and teaching; use of computers, internet and adaptation of electronic information literacy skills for searching of e-information with role played by university library in strengthening the e-information literacy of university teachers.
References:


