CHAPTER – II

REVIEW OF RELATED LITERATURE
2.0 INTRODUCTION

In any research endeavour, review of related literature forms a major constituent. It helps in tracing and acquiring wide-ranging information on the subject. It also helps in developing ideas of interest and enhancing the researcher's knowledge and understanding the problem more analytically. Knowledge of previous research works also helps in avoiding duplication of research. It is also useful for the comparison of data and interpretation of the results. On this line, a comprehensive review of related literature had been conducted. However, the reviews could not yield any literature directly related to the information needs and information seeking behaviour of the educated unemployed youth. Perhaps, this clearly is an indication that hardly any research attempt has been made specifically to assess the information needs and information seeking behaviour of the chosen group of users. Thus, the reviews made could confine only to research works done on information needs and information seeking behaviour of various user groups other than the educated unemployed youth. Further, the reviews have been made chronologically covering about two decades on two broad themes—"Information Need" and "Information Seeking Behaviour".

2.1 INFORMATION NEEDS

Information need, as a concept has been embedded in the studies of users, use and uses, which forms one of the most extensive and amorphous areas of research in library and information studies. Early studies were mostly concentrated on the users of scientific and technical information. Research on information needs and information
seeking behaviour on social scientists began in the 1960's, and most of the works in humanities appears to have been done in the 1970s. Though the literature have indicated that various empirical studies on information needs and information seeking behaviours had been made in the 1960s, the result of the studies had not accumulated to have form a significant body of knowledge. Besides, there has been difficulty in applying the findings of such studies, which could be mainly attributed to lack of a unifying theory, standardized methodology and also absence of a common definition on the concept.

In earlier studies, emphasis was mainly given on the identification of information needs of the users in order to design information delivery systems that will facilitate provision of better services to the users. Moreover, most of the studies had been made from the perspectives of information providers, and as such, no befitting solution could be brought forth to determine measures for specification and classification of information needs of the users. Some of such related studies undertaken earlier included Menzel (1967), on information needs and uses in science and technology; Line (1974), on the information uses and needs of social scientists; Curras (1974), on assessing user needs and Cronin (1981), on assessing user needs.

The studies on information users and their information needs became more prominent during the 1980s. In a related study, Lingam (1987) had tried to assess the information needs and information use in decision making process--- the types of decisions taken at different levels of management and the nature and kinds of information needed to take such decision. Findings of the study had suggested that a
sound knowledge on the nature of work responsibilities of managers and the types of decisions taken at different levels of work were essential to identify the specific information needs of the decision makers. Further, the study also had implicated that information professionals needed to acquire new knowledge and skills, relevant tools and techniques such as problem formulating strategies, planning processes, forecasting techniques, systems analysis, method of studying a subject, etc. It was also emphasised that information provision could be further made more specific to the needs by considering the phase of problem or decision making.

In order to identify the areas of research in pure science and also to determine the favourite journals used by the scientists, Devarajan (1988) had carried out a study in the University of Kerala. The study had ascertained that the trend in interdisciplinary and multidisciplinary nature of research in pure science was in an increased rate. Result of the study had also indicated that scientists in pure sciences are more keen towards reading primary journals than any other types of information sources. Secondary periodicals and technical reports respectively come as their second and third choice respectively. Interestingly, pure scientists did not treat patents and standards as important information sources.

Slater (1989) had conducted a literature survey on information needs among the social scientists in the 1980s and had revealed that the social scientists in general and local government and voluntary sectors in particular were deprived of much needed information. Though the author had argued that the social scientists still seemed relatively well served, the communication gap between research and practice
in social sciences still prevails. The author also had agreed with the earlier researchers that problems existed pertaining to physical access to information relevant even today.

Sengupta's (1990) study on the overview of information needs of scientists had revealed that with the advances in information and communication technologies, the information scientist occupy a pivotal position for assessing and providing the information needs of scientists in a research institute. The author also insisted that to ensure provision of specific information requirements, co-operation is required between researchers and information scientist in the creation and maintenance of information files to avoid redundancy and to collect reprints and preprints. The author also had emphasized that besides monographs and serials, the information provision should include about instruments, their sources of supply and scientific news of topical interest. The author also had stressed that the information scientist should play the role of nurturing reading habits among the scientists to facilitate maximum utilisation of library resources and services.

Baliaersingh and Mahapatra (1995) had conducted a study on information requirement of an Indian community. The authors argued that traditional library services were ineffective in meeting the information needs of the communities. They had attributed this mainly to the nascent stage of the public libraries in our country. The authors had also argued that the government had not played any significant role in meeting the information needs of the public even through public libraries.
In another attempt, Agrawal and Chakaraborty (1995) have tried to ascertain the information needs and use pattern of the scholars of earth sciences who were using literature from the Banaras Hindu University Library with regard to their usage of different type of materials, adequacy of library materials, services offered and other information needs. Findings of the study had highlighted that there is a need to increase the existing collection in the library, implementation of various services like Selective Dissemination of Information (SDI), translation services, current content and documentation, resources sharing, organising user education programmes and introduction of sophisticated services by using computers.

Nicholas and Martin (1997) in their study on the information needs of journalists had revealed that journalists were always in need for authoritative and current information. The journalists were found to have less communication with each other as they maintained contact mainly through on-line. Besides, the role of library as information source was found limited since there was many alternative information systems at their disposal. They also had pointed out that the main constraint in meeting the information needs of the journalists was lack of time.

In a related study, Adedibu and Adio (1997) had carried out a survey to investigate the information needs and information seeking patterns of medical student at Ladoke Akintola University of Technology (Lautech) using questionnaire methods. Major findings of the study included all medical students of Lautech had no orientation on the use of library, which made them depend on the library staff for
assistance. It was also indicated that they relied heavily on library books for their courses mainly because of the high cost of several basic medical textbooks. However, the present library was found to be very small and not very conducive for long hours of reading. On the other hand, many library staff did not assist the students when request were made.

**Marden and Nicholas (1998)** had carried out a study on the information needs of parents having children under the age of five, residing in Borough of Haringey, London. The data was collected using group and individual interviews, involving 53 parents and five representatives of parents’ organizations. The study revealed that most parents needed information about child development, school, children’s behaviours and careers, training and education. The most common information needs were related to health and childcare. Significant differences were found between the needs of single mothers, older women, and father and ethnic minority parents. Also the parents turned to a wide variety of sources but oral information sources were the most important. Though a large proportion of the parents used public libraries for various other information needs, they were not looked upon as an alternative to their problems. They concluded that information needs on schools, finance and child behaviour were largely ignored in spite of the fact that parents were also a key information users and players.

**Siatri (1999)** while tracing the history of user studies during 1940s till 1990s had highlighted that most of the studies were carried out in social behavioural sciences
during 1960s. Based on the findings of the study, the author had pointed out that satisfaction in library use was low among social scientists. He also had concluded that during the 1980s, the volume of literature on user's studies was confined mainly to the conceptual framework and methodological issues.

Verma (2000) conducted a study on 230 respondents to ascertain the information needs of pre-employment candidates of public sector banks of greater Gwalior. The study generated certain results that include: Majority of the candidates were found to be male candidates in the age group of 21-23 having postgraduate degrees, the most popular information sources used by the candidates were books, magazines and books dealing with general knowledge, followed by newspapers and audiovisual media, competition magazines like, Career and Competition Success, Career and Competition Master, etc., and newspapers like Times of India, The Hindustan Times and Navbharat Times were found to be the most widely used ones. It was also found that there was no library and information centre for advisory services to cater to the information needs of pre-employed candidates.

Tripathi (2000) had undertaken a comparative study on the information requirements of physical scientists and social scientists with the objective to examine the differences in the methods followed by them in trying to keep in touch with the latest developments in their respective fields, to study their relative literature productivity and to determine the variations in the two groups with regard to interaction through conference and seminar participation and communication pattern.
The findings include less interaction between the institutions due to distant location, inaccessibility of persons, lack of knowledge about persons and language problem. The study had concluded that there were differences in information seeking behaviour of physical and social scientists. The study, therefore, had suggested for improvement and modification of the existing information centres and libraries by introducing new services in tune with information seeking behaviour of the scientists. Further, the author also had suggested that more research on the cognitive aspect of information use not covered in his study could be carried forth.

Marcella and Baxter (2000) undertook a study on the information needs and information seeking behaviour related to citizenship by interviewing 900 persons from twelve regions of U. K. It was found that the public obtained most of the information on current issues through the mass media and that they generally feel well informed on these issues. However, there was discontentment among the public saying that the government was not doing enough to inform them on European Monetary Union and on local government cutbacks. The majority of respondents felt well informed about areas relating to citizenship, but significant proportions were poorly informed in legal rights, welfare benefits and local politics. A large majority of them believed that freedom of information was important for exercising their rights as citizens. The authors viewed although access to computers in their home was presently limited, majority of respondents had used computers to vote, convey opinions to government and obtain information from them. Public libraries were the most preferred source of
government information and were seen as appropriate locations for a range of other types of citizenship information.

Herman (2001) studied on the information needs of university researchers in an electronic environment. It was an attempt to examine the transition to the electronic information era in academia and to establish from the published literature to what extent university researchers have accepted and adapted to the changes brought about in information activity by seemingly endless technological developments. Within the wider context of the impact of the changing information environment on each of the three clearly discernible components of academia research, disciplinary-rooted differences in the conduct of research and their influence on information needs were identified, and the resulting inter-and-intra-in-individual variations in researchers’ information seeking behaviour were explored. An attempt was also made to paint the picture of academics’ progressively harnessing the new technologies to scholarly information gathering endeavours.

The study had concluded that though scholarly research proceeds within a clearly discernable generic framework, the academic culture surrounding the disciplinary areas brings about characteristic differences in thought processes and work habits, which have been shown to entail discretionary information needs and uses both on the inter-individual and the intra-individual level. With the advent of the brave new world of electronic scholarship, the traditional patterns of information activity were tested against a promising, if not perplexing array of evolving opportunities for new methods of fulfilling information needs. Thus, looking at
scholarly information seeking behaviour in the past few decades was in fact telling the
tale of the transition to the electronic information era in academia.

In another related study, Rowland and Rubbert (2001) have made an evaluation of the information needs and practices of part-time and distance-learning students in the context of their educational and social change in higher education in the UK Open University. The authors collected the data by semi-structured telephone and personal interviews on two groups. Their findings revealed that university libraries often did not cater for the specialized needs of part time and distance learners, which leads to an increasing use of the Internet and also use other sources for their information requirement. Further, they pointed out that the information needs and practice of part-time, distance-learning and mature students in a lifelong learning environment have been rapidly transformed by the use. Even though electronic facilities such as Internet make information gathering easier for the part-time and distance-learning students, yet there is still a long ways to get institutional information service very efficient in the higher education sector. It was also found that universities did often not recognize the distance information needs of part-time and distance-learners and program tutors. In addition, distance-learning information centre often cater for only some of the program that is offered in the higher education institution. Thus, the students had to shift towards the use of Internet for their information needs while coping with the complexity involved there in. Moreover the authors suggested
that there is a need to make the information services more effective in order to guarantee the future success of undergraduate and postgraduate programmers.

2.2 INFORMATION SEEKING BEHAVIOR

Understanding the users and their information needs is very critical for providing effective and efficient user-oriented information services. At the same time, it is equally vital to have a proper knowledge and understanding on how the users seek information, their preferences in using various information sources and channels in trying to satisfy their information needs. Today, how the users usually go about in their efforts to fulfil their information needs have become a fundamental area of interest in education and research for the library and information professionals.

In such a related study, Styvendaele (1982) attempted to assess how the university scientists, as seekers of information, have learned about a book of their interest by asking social scientists, pure scientists and technologists. It was found that library was the major source for the social scientists. However, for pure scientists and technologists, selective dissemination of promotional materials and books by publishers and booksellers directly to researchers were found to be major alerting sources.

Salasin and Cedar (1985) conducted a study in the rural mental health services to ascertain the information seeking behaviour of researchers, policymakers and practitioners for their day-to-day activities. The study had revealed that, mostly the respondents sought for information from within their own organisation by means
of one to one communication. This included interaction with colleagues, attending seminars and conferences, etc. The nature of use of a particular information source had been found to be strongly correlated with the information source where they could get most of the required information.

In another study, Sridhar (1989) carried out a study to determine the information seeking behaviour of Indian space technologists (IST). Some of the important findings and suggestions include:

1. The multifaceted approach in seeking and collection information adopted by the heterogeneous group of the IST makes generalisation too difficult. They are specialised in different disciplines, yet have a common mission and thereby exhibit the duality of the discipline and mission orientation and their information behaviour and prohibition of uniform or common service to all was highly unsuitable.

2. It was also found that information services for increasing productivity and enhancing work performance, departmental performance, self progress, continuing education do differ very much from one another. The excessive dependence on library for departmental promotion and continuing education has to be taken note of. Therefore, it was suggested that formal and informal information system should be clear about its objectives.

3. Emphasis was also given towards equipping the organisation with adequate information specialists so that information could be reached to the space technologists right to their work place.
Marchionini (1992) had discussed and illustrated about the essential features of interfaces to support end-user information seeking. Examples of interfaces to support the following basic information seeking functions are presented, problem definition, sources selection, problem articulation, examination of results, and research and development are needed to support the problem definition and information extraction functions. General recommendations for research on interfaces to support end-user information seeking include: attention to multimedia information sources, development of interfaces that integrate information seeking functions, support for collaborative information seeking, use of multiple input/output devices in parallel, integration in systems for end users, and development of adaptable interfaces to meet individual difference and multicultural needs.

Ellis, Cox and Hall (1993) undertook a study to compare the information seeking patterns of researchers in the physical and social sciences at Manchester University and chemists at the University of Sheffield respectively. Data was collected through interviews with physicists. They also analyzed the impact of electronic communication on the information or communication patterns of the physical scientists and social scientists. This study revealed that there was a remarkable degree of homogeneity between the information seeking patterns of the physicists, chemists, and the social scientists, both in terms of the information seeking activities reported and the research’s perceptions of those activities. Also, there were strong evidence that the researchers belonging to the two groups appears to be inclined towards the
electronic communication where the research results were communicated and produced in the form of electronic conferences and journals. However, the authors argued that unlikely this form of communication will displace the traditional conferences and journal publications – at least in the near future partly because not only of the role of conferences in creating and maintaining personal contacts but also because of the lack of formal recognition of electronic media as respectively legitimate outlets for publication.

They, therefore, had concluded that information-seeking pattern of physicists and social scientists showed no overriding differences as they undertake similar activities and use similar sources. Although, the extent of usage of a source and stage at which a particular characteristic employed may differ amongst them, yet the characteristics of the information seeking patterns of the physicists and the social scientists were found more or less the same. However, there existed a difference between the two groups in two extra categories of behaviour i.e. verifying and ending, which were not identified as discrete categories for the social scientists, although they maintained that some social scientists did report similar activities which were assumed under the categories of starting and chaining.

Sprague (1994) while working on the information seeking patterns of university administrators and non-faculty professional staff members of a group of Ohio State University, examined the type of information resources respondents prefer to use, why they use them, and who they perceive libraries and librarians as information providers. Data was collected on why respondents do or do not use the
library. Interestingly, the study had revealed that there was a remarkable degree of homogeneity between the information seeking patterns of the physicists, chemists, and the social scientists, both in terms of the information seeking activities reported and the research's perceptions of those activities. It was also strongly indicated that the researchers belonging to the two groups appeared to have been inclined towards the electronic communication where the research results were communicated and produced in the form of electronic conferences and journals. However, the author argued that it was unlikely that this form of communication will displace the traditional conference and journal publication— at least in the near future partly because not only of the role of conferences in creating and maintaining personal contacts but also because of the lack of formal recognition of electronic media as respectively legitimate outlets for publication.

Morris (1994) analysed on the concept of user-centered library services, which was widely discussed in library literature as an antidote to a system-centered approach. What was not well understood, however, was the need for a theoretical and conceptual underpining to guide the development of a user-centered service. The study had provided some insights into the nature of information and information seeking that could serve as a conceptual base for understanding how our thinking has to change in order to develop user-centered services.

The question of educating students in the use of information resources is no longer debated, argued Holland and Powell (1995). In this connection, they carried
out a longitudinal survey of the information seeking and use habits of some engineers to assess the impact of the Technical Communication 490: Information Resources for Engineers, at the University of Michigan which was introduced in the year 1978 to 1990. It was found that those who had taken the technical communications course identified more specific resources available to them. They also rated formal sources of information, such as college and public libraries more highly than the respondents who had not taken the course and spent an average of ten hours more per month searching for information and reading information. These data lead them to conclude that there was a relationship between the former students' use of information resources and their having taken technical communications 490. This study also revealed that many engineers have access to the tools needed for electronic information retrieval, and that while few receive formal instruction in their use, there was widespread interest in learning more.

**Dunn (1996)** conducted a study to ascertain the psychological needs and source linkages with regard to undergraduate information seeking behaviour. The study revealed that there were a group of needs, which motivated information searching in a particular class of people besides influencing the usage of different source of information. The most important source of information for the students was the teachers. According to the author, the need factors can greatly contribute in understanding the psychological context in which the students pursue their studies. That some of these needs influence choice of information sources which result in
limited use of the library, hence effort should be made to make the library user friendly.

In another study, Bates (1996) while studying about the information seeking behaviour of interdisciplinary scholars and students, revealed that there could be dramatic difference in the kinds of strategies needed and the amount of effort to seek information as well depending on the degree of coherent of the bibliographic resources of a field. In this regard, he suggested that the scholars should know the various factors, for the easy access to their information need.

Leckie et al (1996) had proposed an information seeking model after synthesizing and interpreting the findings of wide variety of related studies on engineers, healthcare professionals and lawyers. The basic supposition of their model was that the roles and related tasks undertaken by professionals in the course of daily practice prompt particular information needs, which in turn give rise to an information seeking process. However, according to them information seeking was greatly influenced by a number of interacting variables, which can ultimately affect the outcome. Furthermore, any of the components of the model can occur simultaneously, thus representing the true complexity of a professional’s work life. Since the model was intended to capture the complexity of the information seeking activities of professionals, it was stressed that the conceptualization of why and how a professional seeks information cannot reduced to a simplistic analysis of sources alone but, rather, involves a greater understanding of the various roles professional performs. It was also
found that while the need for information was conceptualized as heavily influenced by the role-task relationship, there were also general factors that characterized the professional's information need. The resulting information seeking activity was thus, viewed as being contingent upon two major interacting factors: sources and awareness. These two factors in turn were composed of a constellation of distinct variable that may or may not come into play, creating the dynamic nature of information seeking activity.

Ellis (1997) in his earlier studies pointed out that any approach derived six generic characteristics of information seeking patterns for the social scientists. This was later extended to physical scientists and engineers and research scientists in an industrial environment. Summing up all the earlier three studies (1989, 1993, and 1997), the author had identified six generic characteristics of information seeking patterns-- starting, chaining, browsing, differentiating, monitoring and extracting. The author also had added two more categories namely verifying and ending in his later studies. The study also had shown remarkable degree of homogeneity between the information seeking pattern of the physicists, chemists and the social scientists, both in terms of information seeking activities reported and the researcher's perception of those activities.

In order to ascertain the information seeking behaviour of professionals, Reddy and Karisiddapa (1997) undertook a study and found that user awareness to different sources of information and access to various tools vary with the age,
experience, professional, educational and managerial status. Majority were found to have lack of awareness on sources and knowledge of search techniques, which could be attributed mainly to the poor shape of library and information centre, the absence of technological applications coupled with financial and other constraints. The authors have also highlighted that in comparison to other group, psychologists were found to have better awareness of sources and knowledge of search techniques. Some of the main sources reported in the study include oral and written interpersonal communication, group meetings, conferences, etc.

**Solomon (1997)** studied on the discovering information behaviour in sense making which was the third of three studies, used the methods of ethnography of communication to explore the individual information behaviour in sense making of participants in the annual work planning of a unit of a public agency. In particular, this article focuses on how people capture and process meaning from their situation. The analysis identified personal sense making styles that included cognitive, affective and cognative (action instinct) elements. These styles seem to also reflect a person's role in the organization and the work-planning task. Given that participants in the work planning process had their own personal sense making styles and that these styles tended to vary across participants, it is not surprising that there were clashes in style. This fact was both a strength and a weakness in the sense making that was required for work planning, a complex information intensive task. Diversity of approach, perspective, opinion, and interpretation led to the crafting of strategies that served the purposes of the organization in a richer way than did any individual strategy. Diversity
of approach also led to frustration over the amount of time that it took to tie together the different senses and points of view into agreement on actions, have these agreements unravel as new cues from the environment suggested the need for modification to at least some participants. Understanding the nature of the work may aid the team in taking advantage of the range of sense-making skills that are present and lessen the conflicts that arise when different sense-making skills clash. The three parts of the study dealing with time and timing, the social, and the personal are brought together in a brief conceptual synthesis at the end.

Kuhlthau (1999) carried out a study on the role of experience in the information search process of an early career information worker involving perceptions of uncertainty, complexity, construction, and sources. The author revealed that the information seeking process are similar to the decision making process but with consideration for the affective and cognitive experience of users in the process of information seeking involving six stages of information seeking process such as initiation, selection, exploration, formulation, collection and presentation. Besides the decision making process and the information seeking process are likely to be intertwined in recursive interaction rather than one following another in a neat, formal sequence. The author also stated that various stages viz., initiation and selection in the information seeking process may correspond to the identification phase, exploration and formulation may be thought of as the developmental phase and collection and presentation may be comparable to the selection phase of decision-making. It was also indicated that combination of qualitative and quantitative approaches had a great
potential for gaining understanding to a problem that exclusive use of either approach cannot achieve.

In another attempt, Wilson (1999) had reviewed the status of the models of Ellis (1993) and Kuhlthau (1998), in order to create a nested model where according to him the information behaviour may be viewed as the more general field of investigation with information seeking behaviour being as a sub-set of the field. He further extended the nested model by showing that information behaviour was a part of human behaviour. He maintained that the general adoption of qualitative methods had resulted in work that was in the wider methods tradition of the investigation of human behaviour and, therefore, was more likely to find theories and models in the social sciences that can be applied to the study of information behaviour. At the same time, the author argued that the models and theories proposed by certain researchers, have gained strength as they have been adopted as the basis for further research by other investigators. Moreover, the author observed that models of information behaviour did not describe the same set of phenomena or activities like other. Here in his revised model, he included more types of information seeking behaviour and the information processing and their use as an integral part of the feedback loop, if information needs of the users are to be satisfied. Lastly, he provided three relevant theoretical ideas--- stress, coping theory and risk/reward theory.

Tiratel (2000) investigated the information seeking behaviour of Argentine humanities and social science scholars. This article was based on three years project
which was the first longitudinal study in Argentina to profile the preferences and the information seeking behaviour of researchers in nine disciplines in the humanities and social sciences—philosophy, literature, classical languages and literature, arts, history, anthropology, education, geography and library science. The purpose of the study was to determine, how they locate necessary information about the latest advances in their respective disciplines and research activities, their preferred format of the literature, the rate of obsolescent of the material they handle, the degree of subject dispersion of the information they need and the language they prefer the literature to be in. Findings have been compared to analogous research in Anglo-Saxon countries. It was found that user and use studies in countries having more advanced information systems and services could be applied to developing countries such as Argentine. It was also found that similar traits existed among the humanities and social science researchers in their access to information, their preferences and informative needs.

Garg (2000) while highlighting that the user was supreme in any library and information system conducted a study on the information seeking patterns of users of engineering institutions in Rajasthan. The study had revealed that the faculty members were motivated for seeking information by multiple motives, though the degree of motivation varied from motive to motive. As regards to uses of formal sources of information, journals were optimally utilized, followed by books, handbooks, conference literature and so on. Face to face discussions occupy the prime position, succeeded by personal experience, seminars, etc., in terms of relative degree of use as far as informal sources were concerned. So far as the use of the electronic sources of
information was concerned, computer came first in the list, followed by radio and television. However, the use of electronic sources of information seemed to have been limited, which require necessary operational skills and problems associated with the accessibility.

Beaulieu (2000) with the aim to explore the concept of interaction and interactivity presented in theoretical models in the fields of human-computer interaction (HCI) and information seeking behaviour, and to relate these to information retrieval research, had undertaken a study on interaction in information searching retrieval. The study had suggested that interaction in HCI was primarily concerned with establishing a user/system dialogue at the user interface though did not address the interactive characteristics of information retrieval operational tasks. A distinction was made between general information seeking model and information searching model for computerized systems. The former were deemed to have provided a useful framework for characterizing interaction at the task level, with the structural relationship between tasks as well as the dynamic transition from one task to another being key features of the interactive process. Although the later were all concerned with how searchers interact with information retrieval systems, each of the models examined represents user interaction at different levels of abstraction. Taken together they provided complementary views of a highly dynamic process. Three principal aspects of interaction were identified and discussed--- interaction within and across tasks; the notion of interaction as task sharing; and interaction as a discourse. In conclusion the adoption of an interaction paradigm for information retrieval was
advocated and examples of empirical work for supporting interactive searching and retrieval were provided.

In order to ascertain the information seeking practices of engineers, Hertzum and Pejtersen (2000) carried out a case study in two product-development organizations. The study had revealed that the engineers searched for documents to find people and people to get documents, and interact socially to get information without engaging in implicit searches. It was also indicated that the engineers got most of their information from colleagues and internal reports as these were easily accessible unlike other sources. On the engineers’ choice of written versus oral information sources, argued the authors, might be due to the fact that while concrete product information was found in documents, context information can be obtained from people. They further highlighted that there may be some advantage for written information as there was widespread existence of archives and retrieval systems, which can provide facilities for finding relevant documents.

The authors have suggested that in order to support searches for people, one should extend document retrieval system and another was to develop models for classifying people’s expertise. According to them, to develop such models or classification schemes, it was important to know what information engineers repeatedly rely on in deciding whom to approach in a range of concrete situations. Lastly, investigation can be carried out as to what type of information was acceptable to be recorded and make available for searches, and how this varies with, in the context of safety-critical nature.
Orton, Marcella and Baxter (2000) while undertaking an observational study of the information seeking behaviour of two members of parliament in the United Kingdom revealed that the research facilities provided at the parliament house were excellent and wide ranges of information sources were used to satisfy information need of the MPs. Among these sources, formal and informal contacts were considered the most important which can be attributed mainly due to the online services, followed by specialist organization, expert knowledge on the subject, library and lastly demonstration imparted to the MPs to access information. Further, they revealed that since the MPs have very little command over their own subject areas as they have to be involved in party and public activities and also meet the media attentions, their information need and seeking behaviours could be unsystematic and unpredictable.

Meho and Haas (2001) had studied on the information seeking behaviour of social science faculty studying the Kurds using questionnaire, citation analysis, and followed-up inquiry. In this study, two specific questions were addressed-- how this faculty locate relevant government information and what factors influence their seeking behaviour and use of such information. Results of the study had shown that besides using traditional methods for locating relevant government information, social science faculty studying the Kurds used the World Wide Web and electronic mail. This was an indication that the faculty were aware of and had utilized new information technology to support their research. Results of the study also showed that information seeking behaviour of the respondents was influenced by factors similar to those
influencing other social science faculty. Further, it was indicated that accessing the needed materials was a major information seeking activity that should be added to David Ellis’ behavioural model, and that faculty examined here employ somewhat a more elaborate ‘differentiating’ of Kurdish studies as a field of research have been discovered though further research and implications for better library services were emphasised.

In yet another attempt, Kuhlthau and Tama (2001) had carried out a case study on 8 lawyers in New Jersey to ascertain how they use information to accomplish their work and also the role played by the mediator in the process of information seeking and use. The study had indicated that the lawyers were frequently involved in complex task, which required a constructive process of interpreting, learning and creating. In order to solve these complex tasks, lawyers preferred mainly printed texts instead of computer database followed by lesser use sources such as internal office file, external electronic resources and people within the organization and as well as those from outside. Besides, these sources, it was found that, all the lawyers used mediators in the form of secretaries, assistant and librarian, etc. for the basic organization and access to information. However, role of librarian was found to be very limited.

Johnson, Andrews and Allard (2001), in their study tried to assess how people look for cancer related information and how the explosion in information on cancer genetics will impact their everyday information seeking behaviour. The authors
introduced GENIS (Genetic Information Seeking Skills), which is an intervention framework for helping people build cancer genetic information seeking skills that will be useful throughout their lives. GENIS was based on the Comprehensive Model of Information Seeking (CMIS), which explores people’s information seeking actions by looking at the role played by demographics, experience, silence, and beliefs as well as the information fields in which people exist. GENIS was developed specifically to help people to approach to their problems in a way that matches their values and to enable them to clearly identify their information needs. Further, GENIS has the following objectives:

(i) To inform individuals of accessibility of quality, authoritative information and give them the technique to locate and to use them.

(ii) To aid in designing that meets individual needs for interpersonal assistance in information seeking.

(iii) To improve the general health information literacy skill level of the individuals.

(iv) To determine the outcomes to be measured that relayed to the effect of properly accessed and used information on personal health care.

(v) To reduce morbidity and mortality by facilitating earlier detection and treatment.

Branch (2001) carried out a study to analyse the information seeking processes of junior high students as they accessed information using CD-ROM encyclopaedias. The study was conducted in Inuvik, North West territories, Canada. In this study, 12 participants were selected and were asked to complete over 140 concurrent verbal protocols known as ‘Think Alouds’ as they search for information.
using two CD-ROM encyclopaedias. It was found that the ability to generate 'Think Alouds' varied among the participants. As such, some participants were found to be in the acquisition phase, whereas others were able to plan and asked questions. Moreover, it was found that during the searches some participants seemed to be in the consultation phase. This may be due to the ability of some participants to perform, to plan and discuss problems within themselves. The author had suggested that researcher while carrying out such studies need to be more conscious of the levels of self direction so that the most complete 'Think Alouds' data can be gathered from participants.

Carey, et al (2001) in their study had pointed out that discursive viewpoint adopted by many researchers who studied pertaining to everyday life information seeking allows for a shift in focus away from the individuals as a unit of analysis towards a more general understanding of the broader cultural conditions within which the individual operate. However, the authors argued that the data employed by such researchers often consist of the testimony or observed actions of individuals. This study reflected a point from which to reflect on the process of gaining access or entry to everyday life information seekers as research participants. Finally, according to them such studies highlighted the author's reflections on their experiences of conducting separate library and information science studies of three diverse populations—pregnant women, members of a self help support group and pre-school children. They concluded that, in most of the cases such studies were intertwined and
that attending to issues of gaining access was essential for the development of both theory and research practice.

Spink and Cole (2001) maintained that everyday life information seeking had been relatively a new branch of user study, which examines information behaviour in daily life activities. In their study, they had differentiated occupational or school information seeking with that of Everyday Life Information Seeking (ELIS). In this regard, the authors had argued that in occupational and school information seeking, users usually looked for information in a controlled environment with a definite purpose that will lead to value-added results, whereas in ELIS, users sought information in diverse ways for varied purposes depending on certain situational factors. The authors had also argued that future of ELIS research lies in deepening and integrating various ELIS components such as deeper understanding of ELIS from diverse cultural and social situation perspective, development of generalized process models that hold across situations and integration of ELIS theories and model within a broader human information behaviour standpoint.

In another related study, Houtari and Chatman (2001) attempted to ascertain everyday day life information seeking (ELIS) to explain organizational behaviour in an organization. In this connection, the authors had conducted a study at the University of Tampere, Finland mainly to determine a conceptual base for a new strategic information management (SIM) theory for networked organizations. The data
for the study was both qualitative and also based on triangulation of data sources. The study generated certain interesting results that include:

(i) It was indicated that in university and institutions of higher education, information contact was highest as such these contacts were the most important for the mid-level of the university organization followed by government and ministries along with regional actors, other contacts were the academy of Finland, other funding agency, etc.

(ii) It was found that total number of external informal contacts between basic parts of the university and external stakeholders was much lower than the formal contacts. Interestingly, information management part of the university had by far the most informal contacts with external stakeholders although one individual was responsible for many of these contacts.

(iii) Further, it was found that the mid-level part of the university had the most internal informal contacts—mostly within and between the faculties, followed by the information management part of the university. There was, to some extent, reciprocal relationship between the mid-level and the strategic apex. It was also indicated that an equal reciprocal relationship was established between the mid-level and the support staff, while the authors had also pointed out that strategic apex sought information from the supporting staff though the supporting staff made contacts with the strategic apex less frequently.

(iv) It was also found that there were much fewer informal internal contacts made between parts of the university than formal internal contacts. Informal internal
contacts were made at the faculty level and between colleagues and co-workers within faculties.

The authors had suggested that future research should be carried out based on exhaustive testing of the ideas of the equivalence of knowledge, resources and activities in joint value creation.

In yet another significant study relating to everyday information seeking, McKenzie (2002) had attempted to assess the communication barriers and information seeking counterstrategies of practitioner-patient information seeking encounters. The study was made involving 19 pregnant women with twins from southern Ontario region of Canada. The researcher had used semi-structured interviews and constructionist discourse analytic approach. Result of the study had indicated that barriers in practitioner-patient communication existed, which, in fact were not new as confirmed by earlier studies. As for instance, doctors usually were found to be too busy to answer to all the queries of the patients satisfactorily, while the participants represented themselves as active and vigilant information seekers by giving compelling reasons why they could or should not actively seek information, as it was an important part of becoming prepared for motherhood. In this regard, the author had argued that giving a professional’s approach of an information provider might help to overcome the barriers in practitioner-patient communication.

Given (2002), in her study had tried to determine the information seeking behaviour of 25 mature undergraduates at a Canadian university. The study had
revealed that the intellectual work involved in university study seeped into all students’ everyday lives. The mature students’ information needs were made all the more complex by the great variety of competing activities in which they were engaged. The author, therefore, had suggested that it was vital for the research workers and information professionals to examine and understand the complex nature of information needs and seeking behaviour of the mature students to facilitate provision of effective information services.

In another study, Shokeen and Kaushik (2002) had attempted to assess the information seeking behaviour of social scientists of four universities in Haryana using structured-questionnaire method developed for the purpose of the study. Findings of the study include:

(i) It was found that qualification, status and teaching experience had no effect on the number of visits to library.

(ii) It was indicated that browsing was the first preferred method of searching the required information followed by searching through indexing and abstracting periodicals, citation in articles, etc. On uses of information sources, it was indicated that current journals were the most used sources of information, followed by books.

(iii) It was also found that subject of the social scientists significantly affected use of current journals and reference books.

(iv) Periodicals were found to be the most preferred sources of information followed by books.
(v) Further, no significant difference was found among the lectures, readers and professors regarding attending the seminars, conferences, etc.

Findings of the study had clearly indicated that the social scientists depend more on documentary sources to keep themselves current with latest information. Therefore, the authors had suggested expediting networking of all the universities in Haryana and for creation of computerized databases of the collections and union catalogues. Further, it was also suggested for introduction of sophisticated services by using relevant modern technologies to meet the demands of the users.

2.3 CONCLUSION

The reviewed literature could not yield any research work directly related to information needs and information seeking behaviour of the educated unemployed youth. However, reviews of related literature have been very useful in diverse ways for the purpose of the present study. It has been useful in understanding more deeply and analytically the nature and types of information needs and information seeking behaviour of various categories of information seekers. This also has been very useful in designing the research methodology, structuring the questionnaire and also in analyzing and interpreting the data. Reviewing and analyzing the findings and suggestions given in various research articles also have been very useful in proposing necessary suggestions incorporated in the present study.