CHAPTER - 7

FINDINGS, SUGGESTIONS AND CONCLUSION

7.0 Introduction
7.1 Summary of the findings
7.2 Suggestions
7.3 Further research
7.4 Conclusion
7.0 Introduction

Information is an important resource, which is required in each and every phase of human development. It is a vital ingredient required for the development of each and every country and individual. Every individual collects information with a view to enhancing his/her knowledge. The needed information is collected based on their respective functions and tasks undertaken in an organization, the level of their knowledge and experience, interest and subject areas of study. Information need varies considerably, depending upon the phase of research and areas of activity.

Information seeking is an intellectual activity which results from the need of some information. Every user in the universe of subjects seeks information to meet his/her objectives. Economists, who form the core group of social scientists, seek information from various forms of sources to meet their academic and research demands. The present study showcases their needs of information, search strategy, communication patterns, approaches, use of new technology, etc.
7.1 Summary of the findings

The present study has brought out interesting results that reflect the information seeking behaviour of Indian economists in the present Internet era. The following are some of the vital findings of the study.

1. The 39.7% of Indian economists surveyed belong to the age group of 41-50 followed by 33.5% belonging to the age group of 31-40, who dominate the group of economists belong to other age groups.

2. Different types of designations and various levels of qualifications have been found among the economists. 31.9% of them had their designation as Director, Economist, Fellow etc. Regarding qualifications, 90.2% of them are PhD holders. This shows that economists, being highly qualified, form an intellectual community.

3. While determining economists' need for nature and type of information, the study has revealed that 42.3% of them are in frequent need of statistical economic and social data. This highlights the importance of statistical data, in conducting empirical research in the field of economics.

4. In regard to the purpose for which the information is collected and used, it is found that 51% of the respondents are making high use of information for the purpose of writing/presenting papers or lectures followed by 49.5% of them who frequently use it for keeping abreast with latest developments. From this it can be determined that,
economists are eager to disseminate research output to fellow colleagues, thus facilitating the growth of economic literature and are also keen on updating themselves with current developments in the field.

5. Interestingly, study revealed that the majority of the economist's, i.e., 54.1% are making frequent use of government/statistical publications among the documentary sources of information. This is somewhat surprising change as books are the main source of information in any kind social science research. However, by the same time this supports the fact that statistical data is the hard core for economics research.

6. Among the use of CD-ROM databases it is found that 40.2% of the economists frequently use bibliographic databases compared to other types of databases. This is due to the factors such as ease of use and coverage of literature for many years. The other types of databases are being less or not used due to lack of knowledge, cost and willingness to use.

7. The study has disclosed in regard to use of CD-ROM databases based on the age that maximum use of these databases is being made by middle aged economists except in the case of statistical databases, wherein younger ones have taken the lead.

8. It is found in regard to use of Internet sources, economists made frequent use of discussion/working/occasional papers (47.9%), full
text documents (41.2%), information about activities and publications of international organizations (37.1%), information about conferences (37.1%), Electronic journals (36.6%), information about journals (34.5%) and library OPAC (29.4%). It shows economists' keenness to learn and use various Internet sources for their academic and research work.

9. Regarding use of Internet resources based on their age the study has revealed that maximum use of these resources is being made by the middle aged economists.

10. A majority of the economists surveyed, i.e., 62.9%, mentioned making use of print and electronic sources equally. This indicates strong interest among them in use of electronic sources along with print sources of information.

11. In regard to time spent in seeking information, it is evident from the analysis that 32% of the respondents spend 6 to 10 hours per week seeking information from all types of sources and 42.3% spend 6 to 10 hours per week seeking information only in electronic formats.

12. The study indicates that economists tend to make more use of certain kinds of electronic sources of information, when compared to print sources. This is evident from the use of articles/papers hosted on author's websites (75.3%), discussion/occasional/working papers (68.6%), institutional information (64.9%), statistical data (56.7%) and reports and publications of government/organizations
(53.6%) available on the Internet. This indicates that economists are well aware of kind of information available on the Internet.

13. In regard to approaches used to seek information, the study showed that, browsing Internet is the most sought approach by the majority of the respondents (85.1%). It shows their awareness of different information tools and resources available on the Internet. This is followed by references from bibliographies and review of literature (83%), citations in books, reports, etc. (73.7%), library catalogues (72.7%) and browsing library shelves (64.4%).

14. As regards the age having any bearing on effective use of approaches such as Internet, E-mail, etc., the study has found that middle aged economists are making more use of these approaches compared to their younger counterparts.

15. The study indicates that the reason for delegation of work by the majority of the economists (65.6%), is lack of time, and the nature and type of work most delegated is search and collection of statistical data (89%). As expected, mostly collection of statistical data is often delegated by economists as it is labourious, monotonous, tedious and time consuming work.

16. As regards reasons for non-delegation of the work, the study shows that, the majority of the economists (87.9%), do not delegate work, because they are not having assistants, and equally because they believe that searching process is as important as information itself.
17. What the study has showed in respect of work experience and delegation of work is that occasional delegation of work has increased with the increase in years of experience of respondents.

18. The study has disclosed in case of informal sources of information that the respondents get only a certain kind of information from their colleagues, superiors, research scholars and students, and sharing of information is seen more among peers and colleagues (47.9%) and research scholars (45.4%).

19. As is evident from the study that, in connection with institutional information sources, economists intend to seek more information from international organizations and resource networks such as World Bank (69.6%), IMF (42.8%) and SSRN (40.2%). This is due to the factor that, these sources provide extensive, authoritative and free of cost information in the form of papers and data on various developmental issues, which is crucial for economics research.

20. The study has definite findings in regard to the access to information by the respondents. It is found that 95.9% of the respondents make access to published sources of information from their institutes library collection, followed by 87.1% seeking information electronically from the Internet. This indicates the importance of library even in this electronic era as a main source of information for published literature.
21. It has been found from the study that, among the factors of motivation to seek information, pursuing one's own research related to work is the highest motivating factor (77.3%) for economists followed by self fulfillment and self satisfaction (57.2%), desire to acquire and update knowledge in the field (53.6%), maintaining professional competence (49.5%). This shows economists' eagerness to be in the forefront of research.

22. On the question of frequently used websites in meeting the respondents' information needs, the majority (74.7%) of them indicated use of World Bank website, followed by EPW (67.5%), RBI (51.5%) and Ministry of Finance, Govt. of India (49.5%). This indicates economist's awareness of Internet resources and types of information available in these sites.

23. In connection with communication pattern related to professional activities and achievements, the study has showed that economist's membership to professional bodies and organizations, participation in conferences, in carrying out projects and publication of working/discussion papers is encouraging and appreciative. This reveals their interest in communication and exchange of ideas with fellow professionals.

24. In regard to invited and classroom lectures, the study has found out that the respondents in tandem are making less use of this approach for communication of information.
25. In regard to publication activity the study has indicated that publication pattern of economists surveyed is dismal in all the forms of publications such as articles in learned journals, edited books and conferences and seminars. This could be due to the fact that most of them prefer to publish their results as internal reports or working papers.

26. The study has disclosed in connection with patterns of communication used by respondents to communicate their research that the majority of them (49%) use the medium of publishing articles in journals/books, etc., more frequently compared to other mediums of communication, followed by presenting papers in conferences/seminars (34.5%). Respondents use these mediums because their research gets wide recognition and their papers receive more citations and get indexed in abstracting and indexing periodicals. This also helps them in getting feedback and to know similar research being conducted by others.

27. In regard to barriers of communication, the study has disclosed that the majority of the economists do not face any of the barriers in undertaking and communicating their research. For an open ended question regarding impact of ICT in overcoming barriers of communication, the majority of them mentioned that Internet has helped to overcome time and geographical barriers to a greater extent.
28. The majority of the economists are found to frequently use new technology such as Internet, E-mail, etc., for communication of information. Their highest preference has been using Internet for searching and downloading papers, articles, data, etc (68%), followed by communication with professional colleagues (57.7%), for sending official communication within organization (49%), for sending papers to conferences/seminars, etc (41.2%) and for undertaking communication with publishers/editors of journals (31.4%). This shows the economists' greater dependence on the Internet for information and communication, which is a clear shift from print to electronic media owing to speed with which information can be obtained and delivered.

29. The study has found out the fact that overall cooperation of library staff is good in taking care of information needs of respondents by providing timely information services. The majority of the economists found their cooperation excellent in acquisition of reading materials (42.3%) and finding reading materials in the library (40.2%).

30. In regard to user education or orientation, the study has showed that the majority of the economists (81.6%) favoured orientation or training in using literature and databases, followed by circulation of printed/electronic guides (63.2%) and book exhibition (61.3%). This shows their lack of awareness regarding use of electronic resources
and keenness to know more about library, its resources and services and new publications.

7.2 Suggestions

Economists are those professionals, who are engaged in economic policy making of a country. They shoulder greater responsibility in framing the policy, which has socio-economic implications in the development of a country. Their research has to be qualitative, having sufficient statistical data to support their views on the status and condition of an economic issue or problem. In order to conduct research, to support their conclusions and to make their reports, articles, papers, etc. interesting and fact-oriented they need information. To ensure such a qualitative research, the role of library and information centers attached to various economic and social science institutions assumes greater importance. The information resources and services both in print and electronic format offered to economists leads to improvements in their knowledge, and thus improves the quality, authenticity and contents of their research output.

The present study, taking into consideration various information needs of the Indian economists and, on the basis of analysis and findings of the study, the following suggestions have been made in order to improve the over all information seeking activities of the economists in the present Internet era.
1. Information infrastructure, which is the core for updating and improvement of knowledge needs to be developed in various Indian economics research institutes. The infrastructure, which involves collection development of their libraries with addition of electronic databases, electronic journals, etc., and development of Information and Communication Technology (ICT) with good Internet connectivity to enable economists to seek information from various sources from their library and on the Internet.

2. As reported in a study, lack of awareness and training leads to lesser use of electronic resources, especially databases by the economists. This problem can be overcome by conducting awareness and training programme on a regular basis by libraries and information centers attached to the institutes. The library professionals have to gear up in learning the use of various Internet resources and CD-ROM databases subscribed by their libraries to provide effective training to economists, thus enhancing the use of electronic sources.

3. As reflected in the study, knowledge and use of citation index in all forms is minimal among economists due to such factors as non-availability, lack of awareness and willingness to learn and use. The institutes and libraries must make efforts in procuring a citation index or get citation services from other agency and to create awareness among economists regarding the importance of citations, how citation indexes help in knowing published literature and citations to their papers.
4. It is evident from the study that awareness of National Social Science Documentation Centre (NASSDOC) and use of its resources and services is minimal among economists. In order to overcome this, NASSDOC and libraries attached to the institutes take the necessary initiatives to make economists aware of its collection and services. NASSDOC may also develop a network of all social science libraries in India, to enhance usage of its collection and services by Social Scientists.

5. Publication activity, which is common among all types of researchers and is a benchmark in assessing their credentials, is dismal in all the forms of publications such as journals, books and conferences among the Indian economists surveyed. The institutes must make efforts to overcome this problem and assess the reasons associated with such a pattern of publication among them. If required, institutes may adopt a policy of performance based promotion.

6. Libraries attached to institutes surveyed must make efforts to develop a national level network in order to have effective and efficient resource sharing in the form of books, photocopies of articles etc., to enhance their library services and to meet various information needs of economists.

7. As it is indicated in the study, the libraries and library staff must make efforts in providing user education/orientation to economists
to showcase their resources and services and use of literature and databases. This they can do by developing the necessary user manuals, guides, etc.

8. The study in its totality has found a clear shift from print to electronic media in terms of use of resources and communication of information by economists. This trend shows higher use of electronic resources in the days to come. Hence, libraries must make all efforts to augment their collection with various types of electronic resources and also to provide online services to users.

7.3 Further research

In view of the present study, further research in the area of information seeking can be extended to the following facets:

1. Owing to very few studies as evident from the published literature, the study of information seeking in the ICT environment may be undertaken on other groups of social scientists such as Historians, Political Scientists, Sociologists etc.

2. Comparative studies of information seeking in the electronic age between selected two groups of users in Sciences and Social Sciences may be undertaken in order to know their varying pattern of information seeking behaviour.

3. Studies in institutional level information seeking may help to know various information needs of clientele and help in building effective
information system. It is evident from the published literature that such studies have been conducted in the past in the print environment; however, a study in the present ICT environment, especially in the Indian context, is the need of the day.

7.4 Conclusion

Information seeking as a human activity has undergone a tremendous change owing to the impact of Information and Communication Technology (ICT). Now there is an over-abundant supply of information in various forms at the disposal of information seekers. The influence of ICT is such that, it has changed one's way of seeking information and also passed challenges for library and information science professionals in understanding new resources in order to provide effective services. Different user groups in Sciences, Social Sciences and Humanities are slowly adapting themselves to the changing nature of information.

As is evident from the study, economists as a user group seek information from documentary, electronic and through informal sources. The clear paradigm shift is seen in their attitude and behaviour in the use of electronic resources as compared to print. Even though they are making use of various electronic and Internet resources, there is a gap in the use of certain kinds of resources. The gap exists because of lack of awareness and willingness to learn and use. This puts the onus on libraries and library professionals to create awareness and provide effective orientation/training in use of electronic sources. This will happen only when the
professionals undertake an in-depth learning of resources available in the electronic format, which will help in improving their skills as an arsenal to provide effective services to economists.

The institutes in this changing paradigm must take the initiatives in building appropriate ICT infrastructure, and the libraries attached to them should make efforts to acquire electronic resources in the form of full text journals, bibliographical and statistical databases and also to provide links to various Internet resources to meet the information needs of economists. Libraries attached to institutes should take the necessary initiatives in developing network in order to undertake resource sharing in the form of books, photocopies of articles etc. In addition, they should also make efforts to provide user education/orientation in the use of databases, OPAC and Internet resources through lectures and by developing manuals and guides. These steps will enhance the use of electronic resources, and then effectively bring about some change in the information seeking behaviour of economists.