CHAPTER II

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1. Need for the present study

In a competitive environment, high value is placed on information, that can help organisations to avoid delays in bringing new products to market, claim their right over the research results, disseminate the results for wider exploitation to avoid wasteful duplication of efforts, improve the quality of output and accelerate decision making.

As the world approaches the new millenium; the role of libraries, information centres and information services, is undergoing a paradigm shift from ownership to access, just-in-case to just-in-time, stand-alone libraries to net-worked resources and services, paper print to electronic print and single medium to multimedia approaches. To cope up with these demands, libraries have to equip themselves with varieties of publications. They are in the form of theses, dissertations, training manuals, reports of studies, meeting papers, in-house publications by companies, publications by Chambers of Commerce, and publications of transitory nature - waiting for formal entry into mainstream publications. Many of these are not published through formal channels. Debachere [1] has given following reasons as to why authors do not use commercial channels for such publications -

Publication time between the writing of an article and its appearance in a monthly or bimonthly periodical, which are sometimes very long and, a fortiori, the publication times for a book as compared to those of a study.
The author thinks that his report is of interest to only a very limited number of specialists, and it is too long or too short to be treated as a commercial publication.

The lower costs and the development of copying and office automation facilities that make inexpensive in house publication possible.

This situation can be found almost everywhere in the world, but it is particularly true for the developing countries.

Associated with research, there are brainstorming sessions, discussions, surveys, field visits, submission of term papers, analysis of data – and so on. Some of them are applicable to both - social sciences as well as pure sciences. The subjects in the social sciences are centred around human beings. The issues frequently dealt within social science research are - in the areas of health, hygiene, family welfare, child labour, population, poverty, education, unorganised sectors, labour movement and on host of such topics. In pure sciences, the research findings can be universally acceptable. In social sciences, each situation from where results are produced, is just different from place to place. For example, the variables related to traffic problems of the city like Mumbai and those of any other city in the world, will be quite different. Same will be the case with examples related to rural development, trade, commerce, business, social, cultural or ethnic issues and economic policy. In all these cases data is required from interim reports, draft status reports, surveys, market analysis, annual reports and such back up documents. Such an information is often produced in the form of pamphlets, feasibility studies, research reports and varieties which are not commercially exploited. Similarly researchers in pure sciences heavily depend on unpublished laboratory results, colloquia, experimental data, research reports or patents. In a competitive environment, it is extremely important to keep people aware about contemporary issues as well as to provide them latest
and up-to-date information in whichever area they are interested in. The information required by researchers, policy makers, administrators or even businessmen, remains often in the form of grey literature. The conventional sources like books and journals will continue to hold their important place in the information market. They have attained reasonably well bibliographic control and therefore their quantum is measurable. But the grey literature is not integrated into conventional bibliographic sources and, despite of its importance, does not get widely disseminated. Its accessibility becomes a difficult task. It is therefore essential to capture and disseminate information in the form of grey literature for creating greater awareness about the current issues and for keeping information seekers up-to-date with the latest information. Hence a need for systematic study of grey literature from the point of view of its availability, accessibility and dissemination is found necessary.

**Previous Studies**

In order to find out whether any research has been conducted on the topic of 'Grey Literature', standard sources were consulted. Kumar [2] has given an overview of research in Library and Information Science in India. A bibliography of doctoral theses in Library and Information Science is compiled by Verma and Shailaja [3]. Both these sources show that among the 292 theses listed, no doctoral work has been done so far, in the area of grey literature. At the international level, it was only in 1993 that the first international conference on Grey Literature was held. Thereafter, there were consecutive biennial conferences in 1995, 1997 and in 1999. This fact is adequate enough to prove that there is a need for more study and research on this form of literature. It is of much relevance to practical issues in Library and Information Science, but as such young for research. This is also endorsed by the fact that Library and
Information Science Abstracts (LISA), summer 1999 version has total 1,977,770
abstracts (from 1969 - 1999). Out of which, only 428 records (.216%) are listed
under grey literature.

2. Research Design

As a systematic inquiry, research has three essential
characteristics; namely, objectivity, accuracy and consistency. A well designed
study plan can ensure results reflecting these research requirements. It has to
be developed in such a way that it would meet the objectives of the study. This
plan is called as research design. The research design also aids to systematise
the procedure to give direction to the study. For the present work, the research
design covered the following:

- Establishing need for the present study.
  (section 1, present chapter)
- Defining the objectives and scope of the study
  (section 3 and 4 of the present chapter)
- Determining the methodology to be followed for conducting
  the research work (section 5, present chapter)
- Conducting relevant literature search on the topic (chapter 3).
- Collecting the descriptive information, from the known, recorded
  sources (chapter IV and chapter VII)
- Collecting, analysing and interpreting the data gathered for the
  study (chapter V and chapter VI).
- Preparing a model and drawing up the conclusions (chapter VIII
  and chapter IX).
3. Objectives of the study

Grey literature encompasses entire universe of knowledge as far as subjects are concerned and it is uniquely identified by the form. The present study aims to provide a basic and general overview of grey literature, its importance, significance in the present context, generation, access and dissemination. It is not intended to focus on grey literature in a specific subject area or a target group. With this viewpoint, the objectives of the study are –

1. To examine the concept of ‘Grey Literature’ and give a general overview of the same as a whole, with brief background,

2. To identify varieties of grey literature,

3. To know from the users, the extent to which they depend on different varieties of grey literature,

4. To identify potential generators of grey literature,

5. To understand the current practices regarding availability, accessibility and dissemination of grey literature,

6. To prepare a model for establishing an "Information System for Grey Literature" in the country.

4. Scope of the present study

For the present study, no hypothesis as such has been formulated. Questionnaire, face to face interviews, visits to different libraries, observing their collection with specific reference to grey literature - were the tools - which were considered suitable for collection of data required for such a study. Different strategies were adopted for collecting the data. The type of data needed for the study through questionnaire could be adequately and representatively gathered from the city of Mumbai, as this city is a miniature representation of the country in every respect. In this city, there are libraries attached to large universities,
technical universities, research institutions of international status, financial institutions, business houses, consulting organisations, regulatory bodies, banking sector, developmental institutions, trade and commerce related organisations and so on. So, by and large, the city of Mumbai represents all segments of information world. Other institutions and individuals in the country were contacted for the purpose of getting an insight into their policies with respect to collection development of grey literature, its organisation and dissemination. Along with this, seeking views of the peers in the library field was also sought. The selection of varieties of grey literature in the questionnaire was based on the pilot study and discussion with few individuals. Since users from science and technology areas were also part of the target group, patents and standards were included in the questionnaire, to gauge their relative use. Only non-confidential grey literature is considered for the research work.

5. Methodology

Two types of research are involved in the present study.

- Descriptive research

- Exploratory research

Descriptive research in this case involves,

a) Presenting the background of the subject,

b) Providing a brief description of varieties of grey literature and
c) Examining the efforts done at international and national level in capturing and disseminating grey literature.

For the purpose of exploratory research, combination of the following two approaches was used-

- Triangulation and

- Phenomenological approach
Triangulation is a collective approach to data collection using alternatives. The central point of triangulation is to examine the research topic or to focus it from a number of vantage points [4]. It is a process by which the same problem or phenomena is investigated from different perspectives. It is believed that triangulation can improve validity and overcome the biases inherent in a single perspective [5]. According to Denzin [6], there are three different kinds of data triangulation – time triangulation, space triangulation and person triangulation. The data sets collected at different times will be used by researcher for time triangulation. Space triangulates will use data from a variety of locations, and one who person triangulates - will use data from two or more levels of aggregation, namely from individuals, groups, communities.

Phenomenological approach focuses on the analytic description of the phenomena not affected by prior assumptions. It directly presents the rich experience of the participants [7]. It is a philosophical approach to the study of phenomena and human experience.

These two approaches were found suitable for the present work, as they could provide multiple angles to probe into the research problem. It was thought appropriate to use questionnaire technique for collecting primary data. Questionnaire sets were distributed to users with varied background working in wide ranging fields. This technique could provide quantitative data. Additionally, respondents could be requested to write their comments. It was also useful to determine the preferences of users with respect to use of GL documents. Interviewing people in different subject fields could provide alternative line of probing the same research problem. Different aspects of the research problem could be identified during interviews, as a result of which, better understanding of the related issues would begin to emerge. Visiting different libraries, making a note of their GL collection, and inquiring into its accessibility - could provide a
complete and clear picture of different dimensions attached to grey literature and current practices in the field. It could be supplemented by narratives of the experienced participants and the interviews conducted. The research topic thus could be studied with deeper understanding.

As the work progressed, a conceptual model of "Information System for Grey Literature in India" was constructed. A prototype of the same was sent for peer reviewing to 16 senior level professionals in the country, to invite their comments and suggestions and to take benefit of their rich experience in the profession. Seniority, long career in the reputed institutions in the information field, experience in handling grey literature and representation from various groups such as university librarians, information specialists, teachers in Library Science - were the criteria adopted for selecting the peers. The need for peer-review was felt as the topic is being studied in detail for the first time in the country. Any borrowed model may not work under the conditions prevailing in our country and the experience of those who have worked with grey literature would be useful to test the ideas presented in the model. If any major modifications were needed in the model, they could be incorporated on that basis. Thus, the methodology could fulfil the criteria of the two approaches stated earlier, by adopting questionnaire, interviewing, visits, correspondence with different institutions and peer reviewing methods.

5.1 Questionnaire

The questionnaire was designed in an easy to answer style. It was prepared keeping in mind the objectives of the study. It involved filling up the blanks, making a tick-mark or answering yes / no columns for most of the questions. For other questions sufficient space was provided for comments. The length of the questionnaire was kept to its minimum keeping in mind the natural
tendency of the respondents for lengthy questions. It provided a basic framework for gathering information for the research to be analysed at a later stage.

The information gathered from the targeted user group through questionnaire was divided into -

- Basic information like name, address, type of organisation the respondent was working and his/her specific area of activity.
- Availability of library facilities and availability of necessary information to carry out their work in the respective field.
- Information needs and types of grey literature sources used by the respondents to get the desired information.
- Generation, access and dissemination of information through grey literature.

5.1.1 Pilot study

The user group for the study, included personnel from scientific and research organisations, academic institutions, business houses, industries, consulting organisations, banking sector and a regulatory body. The first draft of questionnaire was initially distributed to 20 respondents to carry out a pilot study. They belonged to different segments, such as Academic - 5, Scientific / Research organisations - 5, Industry - 4, Consulting - 3, Financial institutes - 3. They were working in different capacities in various organisations. They had a job title and a core function to perform. Yet, some of them were involved in interdisciplinary activities - such as research and consultancy or research and academic or consultancy and planning. While conducting the pilot study, suggestion was made by the users to provide for multiple options, so as to cover all aspects of their work as well as their parent organisations. Therefore, in question no. 3 and
no.4, a provision was made to allow the users to tick more than one option. However, for the purpose of further analysis, one core option was taken into consideration (explained in chapter V). The categorisation of organisations and professional activity of the users were not mutually exclusive but were found necessary. In question number 5, issues related to environment, pollution, safety were added on suggestion from respondents. One respondent recommended to provide an example of wholesale price index at the category “official data” in question no.7. It was suitably incorporated. Patents and standards were included on the suggestion of three respondents.

Initially, the questionnaire consisted of 18 questions. All the suggestions of respondents, made at the pilot study were incorporated and two more questions were added as they were found to be useful. The final draft of the questionnaire was thus prepared with 20 questions. It is given in appendix II.

5.1.2 Selection of Libraries for distributing the questionnaire sets

There are varieties of grey literature in different fields of knowledge. Therefore, libraries in diversified subject areas were selected for the purpose of distribution of questionnaire sets. There is no source which could give some indication of libraries having a sizeable collection of grey literature. Lack of knowledge about the definite universe was a problem in selecting the libraries as well as the target group during this phase of research. Therefore selection of libraries was made on the basis of researcher’s experience, past knowledge, by contacting fellow professionals and by taking guidance from the mentors. While choosing the libraries, diversified subject areas were constantly kept in mind. Thus, libraries affiliated to organisations belonging to science and technology field, banking sector, and other sectors like housing development, social science related areas such as, population studies, development research, business,
industry, computer, education and training as well as universities including the technological universities were covered. By and large, the selection of institutions and their libraries was made in such a way, so as to ensure representation from all the segments of information. No specific attempt was made to have exact proportional representation from each category of library, but libraries potentially having collection of grey literature were contacted. Since nature of the study was exploratory, the above method of selecting libraries and respondents, would not affect the conclusions and findings.

5.1.3 Selection of respondents and distribution of questionnaire sets

After selecting the institutions - their addresses, telephone numbers were noted down. An independent letter for the Head / Director of the organisation was prepared requesting him / her to allow the researcher to distribute the questionnaire sets in the organisation. Before that, objectives of the study and purpose of collecting the information was explained. Contacts were established with the librarians and visits to libraries were made with prior appointment. The help from the heads as well as librarians was sought to identify personnel within the respective organisation to whom the questionnaire could be given. Some librarians and respondents suggested names of their colleagues in other organisations, whose contribution would be useful for the study and who will be willing to fill up the questionnaire. Hence such users were also contacted. Though the target group belonged to varied background, care was taken to ensure that the questionnaire sets would be distributed only to actual users of GL documents. The respondents were given one week to ten days’ time to fill up the questionnaire and keep the same ready for collection. The distribution of
questionnaire sets was limited to city of Greater Mumbai, as per the research design.

5.1.4 Collection and follow up work

A fairly good response to the questionnaire was received from the users. Majority of the respondents filled up the questionnaire within the stipulated time. A constant personal touch was maintained with the librarians, who also helped in getting the sets back from the respondents. The follow up work to get back the duly filled in sets was discontinued after 2-3 reminders. The yield of response is as follows:

1. Total number of questionnaire sets distributed ................240
2. Number of completed sets received back ....................176
3. Response ..................................73.33%

The co-operation extended by the heads of the institutions, librarians and respondents was acknowledged by sending letters, message etc.

5.2 Interviews

The questionnaire tool was further supplemented by interviews of personalities from different cross sections of society. These included heads of the research and training institutions, consultants in organisations, R&D managers in industrial organisations, freelance writers in newspapers and professional journals, heads of the university departments, teachers and librarians. Interviewees were identified through professional contacts, suggestions from librarians and through their social identity. Although, no exact numerical categorisation was made as such, care was taken to have whole body of representation from all segments. Interviews were conducted in non-structured way after prior appointment and by clarifying the purpose of the
interview. This provided sufficient scope to the interviewees to express their view on the issues related to the use of grey literature, their dependability on the same, their means of finding information and problems encountered by them. This enabled the researcher to discuss the issues at length and get advantage of peoples' personal experience in obtaining information through grey literature. It was possible to know their opinions, views and reactions which ultimately helped in better understanding of the overall work in hand. Some valuable suggestions and comments offered by them were noted down.

5.3 Collection of additional information

Additional information on the topic was collected by making personal visits to libraries of some institutions, (which were not covered during questionnaire) and by corresponding with them. This was mainly done with a view of collecting more information on varieties of grey literature and to know library policies with respect to collecting, classifying, organising and disseminating information from grey literature. Information on libraries was collected by contacting institutions from different parts in the country. Following sources were consulted for the purpose:

- A list of institutions affiliated to ICSSR in Mumbai and Pune, prepared by Western Regional Centre in Mumbai.
- Compendium of 100 major in-house R & D centres. New Delhi, Ministry of Science & Technology, Dept. of Science and Industrial Research, 1991.
The Directory of Social Science Institutions – 1992, covers 182 Social Science Institutions in the country. They are the institutions affiliated to government departments, private, international, non-profit making, research and educational institutions. Arranged in alphabetical sequence, the directory provides information about the institution's core activities, its full address, designation of the head, research in progress, publications, library collection in terms of books, periodicals, non-book and other material (not quantitatively), services and other facilities.

The Directory of R & D Institutions published by the Dept. of Science and Technology covers national laboratories, research institutions, in house R&D units of commercial organizations, non-commercial scientific and industrial research organisations and academic institutions. These institutions are of varied sizes in terms of infrastructure, facilities, research input, staff etc. This directory gives complete address of the institutions and sectors to which they belong.

The Compendium on 100 major in-house R & D Centres prepared by the Department of Scientific and Industrial Research, brings out the achievements claimed by the in-house R & D centres, their infrastructural facilities, history, patents filed by them and so on.

Based on the above sources, a judgement was made as to libraries of which institutions in the country are likely to have collection of GL documents. Accordingly, correspondence was made to the heads of the institutions as well as librarians to get desired information. Institutions not listed in the above sources were also contacted for the purpose, information about which was available from mentors and professional colleagues. However, the aim of this exercise was only to supplement the data gathered by the questionnaire and interview technique and not to have an exhaustive survey of all the institutions in the
country that are likely to have grey literature. Therefore selection of institutions was discretionary, based on personal judgement, advice from the mentors and suggestions from librarians.

5.4 Peer Reviewing

Peer reviewers were selected on the basis of their experience in the field. Criteria for their selection is explained in section 5 on Methodology in this chapter. An independent questionnaire consisting of twelve questions was sent to peers to get their views on different matters related to grey literature. A short write-up was sent along with the questionnaire explaining the purpose of this exercise. The response received is analysed later in the study.

6. Advantages of the methodology adopted

This type of combination of questionnaire, interviews, personal visits, correspondence with institutions and peer reviewing was helpful in providing strong research foundation for the work in hand. It offered a good opportunity to the researcher to get the first hand information about grey literature from different libraries and to meet audience with varied background and subject specialisation. Users of grey literature expressed their views on the topic, presented practical problems faced by them in getting the desired information through grey literature, discussed the impact of the Internet on their search strategy and suggested the measures that can be adopted for speedy dissemination of information. This enabled to obtain detailed information required for such a study and provided a direction as the work progressed.

The data collected, discussed and interpreted in this work is true as of June 1999.
References


