CHAPTER 5

THE RESEARCH METHOD

After formulating the precise objectives and hypothesis of the study and knowing the elements of marketing of library services, the next step is to decide on the method of research.

It is an accepted fact that research is a "systematic quest for knowledge." The search is considered systematic when it follows certain accepted principles. Such systematic search is referred as scientific method. A scientific method has certain characteristics. It is signified by observation, measurement and quantification. There are a number of scientific methods suitable for social science, in general and library science, in particular. Irrespective of which specific method is selected, the scientific method, in general, deals with the following steps:

1. Choice of a Method
2. Tools for Collecting Data
3. Choice of the Sample
4. Method of Collecting Data
5. Analysis of Data

All these steps depend entirely on the nature of problem. The following sections give the full description of the method.

5.1. Choice of Method

The choice of method entirely depends on the nature of problem. In case of the present study, the problem is to find or to be more specific, quantify the 'Role of Libraries in Enhancing Agricultural Research and Education'. Although librarians, in general, aim at enhancing the use of their library, that is not the point. It would be better to know what researchers and teachers of agricultural sciences feel about the role of library in their pursuit of the profession. Taste of pudding is in eating. Similarly, role of library is to be vouched by none other than its users. They should say, for what all purposes they use library, to what extent and with what success? In other words, the opinions of the farm scientists is of paramount importance. Therefore, it was decided to use survey method to find the opinions and views of the farm scientists about the information sources, purposes in general and about a particular library selected for the purpose of the study. Since the entire study is to be conducted on one specific library, the method would also appear like a case-study.
In short, the research method selected can be considered as a blend of case-study and survey method. Such a method is permitted as indicated in the following lines.

"The overall purpose of a case-study is to obtain comprehensive information about the research object. Data gathering methods used in case-studies are based primarily upon direct observations; both participant and non-participant can be used. When necessary, these methods are supplemented by structured techniques such as interviews and questionnaires. In Librarianship, the objects or subjects of a case-study are typically one or more of the following entities:

(a) Organisations such as Libraries,..."

The method proposed is a case-study because it reflects on a specific object or institution, but it is a survey because it deals with the opinions of 199 respondents. (More details under the section on The Sample on p. 64.)

5.2. Tools for Collecting Data

Tool for collecting data is dictated by the method of research which in-turn depends on the problem. Therefore, tools

of research have to be decided and designed in the light of the scope, context, objectives and hypothesis stated in the third chapter.

Surveys can be conducted with a structured questionnaire or by interviews with a check-list. Since there were chances that the interviews may get off the track or may be interrupted in between cutting the chain of thought, it was decided to design a questionnaire. Further, it was felt that interviews would take more time than responding to a structured questionnaire.

5.2.1. The Questionnaire

Questionnaire was considered to be an ideal tool for collecting data in this case, with the full knowledge of its defects. The major problem with the structured questionnaire is that it, sometimes, indirectly prompts the respondent to tell lies. Although this problem could not be completely eliminated, it was minimised to a considerable extent by asking the preferred order or ranking among several enumerated choices. There were just a few questions expecting a plain, mutually exclusive 'Yes' or 'No' (Please see a copy of questionnaire in Appendix No 1.)

The questionnaire was designed involving all the variables indicated in the scope, objectives and hypothesis.
Further, the questionnaire had another utility. Librarians clearly know the various purposes for which certain specialized sources such as abstracts, indexes and annual reviews etc. are referred. A lot of money is spent every year on these sources. It is difficult to assume that the user community is fully aware of the existence of these sources, leave alone the scope, content and exact utility of these documents. Here is an attempt to include some questions about this subject. If it was found that users were less aware about these sources, the content of the usual orientation courses could be modified. Incidentally, the questionnaire, merely by asking questions, aimed at indirect promotion of these sources.

(The detailed scope notes about each of the questions is given in the sixth chapter. 'Analysis, and Discussion' at relevant places to avoid duplication).

There were two parts in the questionnaire. The first part concerned about the users and the nature of their information need. It consisted of six sections; the first and the second sections concerned about the personal data about the users.

The third section is about the informations sources or the type of documents referred.

The fourth section probes the way the respondents express their information needs.
The fifth section was the core one, dealing with the ten selected factors influencing the type of information required by the farm scientists.

The sixth section concerns about the various information resource centres including the personal collection to which the user could have access.

The second part deals with the use of the library and the users' perception of the library.

Thus, the questionnaire reflected several aspects of agricultural research and education. The selected sample was studied with such a comprehensive questionnaire.

5.3. The Sample

The nature of sample is also determined by the stated problem. In the present case, neither random sample, nor stratified one serves the purpose. The type of problem on hand could best be dealt by a purposive sample. Purposive sample is 'A nonprobability sample in which the researcher selects cases for analysis based on his or her judgement'.

This type of samples are highly useful in case of exploratory research, such as the one on hand.

Further, it was decided to resort to purposive sampling because "information of high quality may best be obtained by turning to experts or people with great experience or sensitivity to the subject, rather than to a random selection among all people involved". Therefore, purposive sample is also referred as experience sample.

In case of the present problem the sample was to be drawn at two stages.

First, the institution was to be selected and then the respondents had to be selected. The institute, the Tamil Nadu Agricultural University, Coimbatore, was selected by purposive sampling and the choice of respondents followed. All the Professors, Associate Professors and Assistant Professors who were available at the time of study were selected. Thus, 225 questionnaires were given, but 199 persons responded. In other words, response was 88.44%.

The choice of the Tamil Nadu Agricultural University was an obvious one for the following two reasons.

1. It is one of the oldest institutions in our country with specialisation in Agricultural Education and Research. Started as a model farm at Saidapet, Madras in 1863 and developed into an Agricultural School in 1884, it finally evolved into a full fledged Agricultural University in 1971. (Please see Section 6.4, p 112 for a detailed note on Tamil Nadu Agricultural University Library). This being one of the oldest institutions, it has required infrastructure to become a model agricultural university. It is neither the largest among the agricultural university libraries, nor is it the smallest. It surely is among the top five agricultural university libraries. Hence, it was an ideal and good organisation to be selected as a sample. Further, any conclusions drawn based on this sample could serve as a model for the other libraries belonging to the same class.

2. The investigator has sufficient familiarity with Tamil Nadu Agricultural University. Therefore, the data collection would be more reliable and effortless. However, it is equally important to note that too much of familiarity may lead to bias. All care was taken to check and cross check the responses with select interviews. Further, since all the questions except the fourth section were structured, there was no scope for any bias of the investigator.
The second stage of the sample was the actual respondents. As indicated earlier, all the 225 Professors, Associate Professors and Assistant Professors were considered as the sample for the study.

5.4. Method of Collecting Data

The questionnaire with a covering letter was given to 225 farm scientists working on the campus. Although there were nearly 280 such eligible scientists within the University's jurisdiction, some posts were vacant, some were on long leave, some had gone abroad, some were at some other research stations at the time of survey. The process of distribution of the questionnaire itself took nearly ten days. After a month it was collected back from some of the respondents. The rest were gently reminded. Finally, 199 responses were collected in over three months period. Needless, to say some questionnaires were incomplete in one or two areas. Respondents completed even those portions when reminded, after seeking some clarifications.

These 199 responses were subjected to statistical analysis.

Although analysis is part of the research method, it is given in the following chapter with detailed discussion as it is the core of the present study.