Chapter – III

RESEARCH METHODOLOGY

3.0 INTRODUCTION

Scholars across the world have established a number of methods and techniques to successfully conduct researches in Library and Information Science. Various methods and techniques are found to adopt for assessing the automation status of libraries by the scholars. They are related with the use of methods to identify the libraries to be discussed, sampling techniques, design of tools for collecting data, techniques for the analysis of data and interpretation to draw meaningful conclusions, etc. As far as the present study is concerned, the detail of the methodology used is discussed in this chapter of the work. Survey and visit of different libraries of different organizations throughout the length and breadth of the state have been followed to take the stock of the collection development, infrastructure development, computerization, information and communication technology (ICT) and its application and automation status of the libraries and finally to examine the real problems in automation and prospects thereon. In the following sections, a detail account of the methodology followed in the study is being discussed.

3.1 POPULATION AND SAMPLE

The present study has attempted to understand and identify the problems and prospects of library automation of different types of libraries that are
existence in the state of Manipur under various organizations. As such all types of libraries, i.e. academic, public, and special under various organizations and institutions have been included in this study. The institutions/organizations covered include central government institutions, affiliated central government institutions, state government and state government recognized private institutions, voluntary organizations and both government and private partnership institutions and their respective libraries, which constitute the population size of the study. The present study attempted to cover 100 libraries in the first phase but reduced to 75 libraries due to various reasons like reluctant on the part of the librarian to reply the questionnaire. Moreover some libraries are found to be existence in name sake only missing the basic characteristics of being a library. It was not an easy task on the part of the investigator to cover each and every library spreading across the state due to various reasons and difficulties. As such the present study has been done on the basis of a sample selected. Finally, 75 libraries of various organizations and institutions of Manipur have been selected for the present study.

3.2 SURVEY OF LITERATURE

In order to have a comprehensive knowledge about library automation, survey of related literature has extensively been carried out. Some of the resources used for the purpose include: Books, Theses, Dissertations, Journals, Proceedings, Websites available from the internet resources, etc.
While surveying the literature the following tools and techniques have been followed:

- **Consultation of:**
  - Library and Information Science Abstracts (LISA)
  - Indian Library and Information Science Abstract (ILSA)

- **Use of different sources:**
  - Abstracting and Indexing Sources
  - Guide to Literature
  - Annual Reviews
  - Bibliographies and references appended in many sources.

- **Browsing web-based resources like:**
  - Resources available in various academic websites over internet
  - Electronic journals available through INFLIBNET Digital Library Consortium
  - Open Access journals

- **Discussions with:**
  - Supervisor
  - Peers/Colleges
  - LIS Professionals
3.3 SURVEY AND TECHNIQUES

While surveying institutions/organizations and their library and information centers’ and collecting data from each library the following techniques have been followed:

- Pilot survey of libraries and other information centers in the state in phased manner.
- Identification of institutions/organizations and their library taken in the study sample.
- Available related literature in the area of the study has been scanned for review to have a thorough knowledge on it.
- Sampling techniques in the case of data collection through questionnaire form the libraries, etc. so as to get data from different organizations.

3.4 SURVEY OF ORGANISATIONS/INSTITUTIONS AND THEIR LIBRARIES

Libraries of different organizations/institutions covering all the districts of Manipur have been visited either personally or deputing representatives to understand the nature of the same and while distributing and collecting the questionnaire. Information about year of establishment, collection development, infrastructure development, library building, IT/ICT application, computer procurement, and library automation have been surveyed. K.K. Handique Library of Gauhati University, NEHU Library, Kokrajhar University Library and Bodoland Central Institute of Technology Library outside Manipur have also
been visited to have knowledge of the services and organizations leading to computerization and automation of the same and collection of materials related to the study. This helped the investigator to understand the mode of automation of libraries in the state in comparison with the libraries of the neighbouring states of the region.

3.4.1 Survey of Various Institutions/Organizations

Survey of various institutions/organizations of Manipur have been carried out to understand their nature and mode of operation.

The institutions/organizations covered in the survey include the following nature/type of ownership:

- Central Government
- State Government
- Semi-Government
- Private
- Voluntary

They are found under various categories:

- Educational Institutions: Schools, Colleges, Universities
- Educational and Technical Institutions
- Purely Technical Institutions
- Cultural organizations
- Others, which include industries, government departments, professional bodies etc.
3.4.2 Library and Information Systems

Different existing libraries and information systems under the various organizations as discussed above have been surveyed to assess their types, to ascertain the stock of the present status of library automation and to understand the problems and prospects of automation of the libraries and their mode of delivery of services in the state.

3.4.3 Identification of the types of the Libraries

On the basis of the nature of organizations/institutions, the libraries covered in the study has been categorized as:

(i) Academic Libraries:
   (a) School libraries
   (b) College libraries
   (c) University libraries

(ii) Public Libraries:
   (a) Government public library
   (b) Voluntary public library

(iii) Special Libraries: under which libraries of the following nature have been included.
   (a) Technical institutions/organizations
   (b) Professional bodies/organizations
   (c) Various government departments
   (d) Institutions/organizations in different fields.
3.5 TOOLS AND TECHNIQUES USED

Questionnaire is the main tool used in the collection of data from the identified libraries. A semi-structurally designed questionnaire has been adopted for the purpose. However, as the situation warranted, observation and interaction with library professionals have also been made as supplementary aspects in collecting data in addition to questionnaire. A few heads of the institutions and readers/users have also been interacted to have clear understanding on various issues associated with the automation.

3.5.1 Design of the Questionnaire

The questionnaire (as in Appendix-I) has been constructed on the basis of the objectives of the study. The questionnaire has been designed by dividing it into six sections as enumerated below:

**Section A : About the Library:** comprising of eighteen questions.

**Section B : Infrastructure Development:** comprising of eleven questions.

**Section C : Automation Status:** comprising of eleven questions and sub sections.

**Section D : Problems in Automation:** comprising of two questions and nine sub section each.

**Section E : Prospects of Library Automation:** comprising of two main questions and seven sub section in the first question and five sub section in the second question.

**Section F : Comments and Suggestions:** comprising of three questions.
3.6 DATA COLLECTION

While collecting data the following different methods have been adopted;

- Scanning and identification of published materials,
- Survey of various libraries of institution/organization and information centers’
- Extensive survey of library professionals particularly the librarians and their libraries to understand information about computerization and status of their automation.

3.6.1 Techniques Followed

A number of possible techniques have been followed in the collection of the data from different types of libraries. Due to various circumstances and prevailing situations in the state, the investigator has been compelled to use different techniques. Some of the important techniques employed include the following.

3.6.1.1 Direct Approach

This technique has extensively been used in the collection of data from various institutions/organizations and information centers. Librarian was the first person approached and in the absent of the Librarian, head of the institution/organization and information centers and the in-charge of the library directly has been approached. It has been done in a phased manner through different stages.
3.6.1.2 Deputing Enumerators

Some enumerators have been deputed to visit far flung areas particularly in remote and hill areas of the state. They were given proper instructions concerning the purpose for which data was to be collected. This technique was essential and used when the institutions concerned failed to return the questionnaire in time.

3.6.1.3 Mailed Questionnaire

As it was difficult on the part of the investigator alone to visit each and every institutions/organizations and information centers several time, self addressed and stamped questionnaire of the study has been given to the librarian so that they can mail the duly filled in questionnaire to the investigator.

3.6.1.4 Meeting at various Occasions

In various occasions, such as, meetings, conferences, workshops, seminars, refresher courses of the library professionals, etc the investigator could contact librarian and library professionals and useful information about their library could be collected.

3.6.2 Stages in Data Collection

Data from the libraries under consideration have been collected in six stages, due to geographical location of the state as enumerated below:

- First Stage : Churachandpur District
• Second stage : Imphal East and Imphal West Districts
• Third stage : Bishnupur District
• Fourth stage : Thoubal and Chandel District
• Fifth Stage : Tamenglong District
• Sixth stage : Senapati and Ukhrul Districts.

3.6.3 Period of Data Collection

The collections of data from different library was performed during October 2010 to March 2012. However incomplete and blank questionnaire of various institutions have been rejected by the investigator.

3.7 TECHNIQUES FOR DATA ANALYSIS

Packages for Statistical techniques like SPSS and Microsoft Excel have extensively been used in the process of analysis of data for empirical interpretation. The following statistical techniques were employed to analyse and interpret the data:

Basic Statistical techniques like:

• Mean, Median, Mode
• Percentage
• Standard Deviation, Standard Error
Statistical tests like:

- Chi square test
- T-test and
- ANOVA

3.8 PRESENTATION OF DATA

Presentation of collected and analysed data have been done through the following aspects:

3.8.1 Tabulation

The analysed data have been presented in the form of tables to give a clear picture of the nature of the data under consideration.

3.8.2 Graphical Representation

Besides the tables, in some sections of the analysis of data, graphical methods like bars, line graphs, histograms, etc. have also been employed to give a clear concept of the analysed data.

3.9 CITATION STYLE

Throughout the course of the study, while making text and reference citations, Havard Style based on AGPS Style Guide, 5th edition has been followed. The same has been applied to all the types of information resources whatever consulted and referred to for various purposes and sections of the study.
3.10 CONCLUSION

There are different techniques and methods in the study of the status of a library on various aspects. Such techniques and methods are found to be adopted in almost all the studies conducted across the world. However, some variations are observed in adopting the same because of local variation and situation. In the present study, the techniques and methods adopted and discussed are found to be more appropriate.