Chapter 4
Research Methodology
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4.0. Introduction

The earlier chapters are related with the conceptual frame work, i.e., background of the study, introduction of user satisfaction, review of the related literature and libraries under study respectively. This chapter focuses on the conceptual research design and methodology used in the present study. The methodology used in the present study has been discussed in detail under the following headings:

- Selection of the problem
- Definition of the terms
- Objectives of the study
- Hypotheses
- Scope and limitations of the study
- Research methodology
- Tools used for the study
- Questionnaire design
- Sample and population design
- Data collection procedure
- Data analysis method

4.1 Selection of the Problem

The problem selected for the present study entitled “User Satisfaction In Zakir Hussain Library, Jamia Millia Islamia; Central Library, Jawahar Lal Nehru University; Maulana Azad Library, Aligarh Muslim University: A Comparative Study”.

User satisfaction is of utmost importance in any library/ information centre. As the level of user satisfaction is the measure of the performance of the library, understanding the level of user satisfaction will help in improving the collection, services and the environment. A library’s resources and services are the most important factors that contribute to user satisfaction. It is not the number of collection, but the quality of collection and services that determine satisfaction.
However, it is a commonly accepted truth that no library can satisfy all its users (Andaleeb and Simmonds, 1998). Hence, giving maximum satisfaction to the maximum number is to be ensured.

Modern academic libraries are facing several challenges as a result of the changing information requirements and use pattern of the users on the one hand and the revolution in the form and availability of information including the electronic information on the other. With the technological revolution and the variety and abundance of information, providing the right information at the right time to the right users has become a great challenge. User satisfaction has been recognized as an important measure of library performance. Hence, this study has been designed to examine the adequateness of collection, services, facilities and preparedness of staff in helping the users. It investigates the satisfaction level of users of three different university libraries on a structured scale containing 44 questions. The user satisfaction scale helps in gauging the satisfaction level and further generalizes certain issues which need to be taken care of for the satisfaction of users.

4.2 Definition of Terms

An adequate definition of terms is necessary, since lack of proper explanation can contribute to the problem. The term User, Satisfaction, User satisfaction, Zakir Husain Library, JMI, Central Library, Jawaharlal Nehru University, New Delhi, Maulana Azad Library, Aligarh Muslim University and Comparative Study will be often used by the investigator.

User: In this study users indicates the community which uses the library. According to Oxford English Dictionary user is generally defined as one who uses or employs anything.

Satisfaction: According to Webster Universal Dictionary satisfaction is the act of satisfying or gratifier feeling or gratification of desire.

According to Altman and Hernon (1998) the word “satisfaction” comes from the Latin word Satis (enough) and Facere (to do or make). These words suggest the true meaning of satisfaction, which is fulfillment.

4.3 User Satisfaction

Users satisfaction can be defined in a library as positive feelings of users after successfully fulfillment of his/her information needs in right time through right sources. Satisfaction and service quality are distinct but related constructs. Service quality involves the long-term, general examination of customer expectations.
Whereas satisfaction a more short-term measure, focuses on a personal, emotional reaction to service. Careful attention to both increases customer retention and staff satisfaction and empowerment.

According to Tessier, Crouch, and Atherton (1977): in an early attempt to define "user satisfaction" stated that satisfaction was "ultimately a state experienced inside the user's head" and therefore was a response that "may be both intellectual and emotional".

According to I-Ming Wang and Chich-Jen Shieh (2006): user satisfaction is defined as "the levels of service quality performance that meets user's expectations".

New Delhi: New Delhi is the capital of India. It is situated within the metropolis of Delhi and serves as the seat of the Government of India and the Government of the National Capital Territory of Delhi

Comparative: A comparative study is a study that involves the comparison of two or more things of the same kind.

Study: The Concise Oxford English Dictionary (2004, p.1432) defines 'Study' as "the act of considering or examining something in detail". It is also applying the mind to learning and understanding a subject in order to discover new information.

4.4 Objectives of the Study

The main objectives of the present study is to examine the status of user satisfaction among the three university libraries of India. The present study attempts to achieve the following objectives.

4.4.1 To find out the overall user satisfaction in the Zakir Husain Library, JMI university.

4.4.2 To find out the overall user satisfaction in the Central Library, Jawahar Lal Nehru university.

4.4.3 To find out the overall user satisfaction in the Maulana Azad Library, Aligarh Muslim university, Aligarh.

4.4.4 To find out the user satisfaction in all the three university libraries with regard to Document acquisition Service.

4.4.5 To find out the user satisfaction in all the three university libraries with regard to Document Processing and House Keeping Service.
4.4.6 To find out the user satisfaction in all the three university libraries with regard
to Document Delivery Service.

4.4.7 To find out the user satisfaction in all the three university libraries with regard
to Reading Facility.

4.4.8 To find out the user satisfaction in all the three university libraries with regard
to Reference and Documentation Service.

4.4.9 To find out the user satisfaction in all the three university libraries with regard
to Personal Attention Paid by the Library Staff.

4.5 Hypotheses

There is no doubt that hypothesis is an important and indispensable tool of a
scientific study. In lack of hypothesis no one scientific study can be completed.
Hypotheses are the working instrument of the theory, which can be tested and shown
to be probably true and false. It is the hypothesis which makes the way for solution of
the problem. Hypothesis is a supposition or preposition. It is a tentative
generalization, which is yet to be proved.

For the purpose of the present study, the following hypotheses are formulated
so as to make the present study more scientific, purposive and unequivocal.

4.5.1 Most of the users are satisfied with the services and facilities provided by all
the three university libraries.

4.5.2 The difference in the users satisfaction scores among the three university
library must be non significant with respect to Document acquisition Service.

4.5.3 The difference in the users satisfaction scores among the three university
library must be non significant with respect to Document Processing and
House Keeping Service.

4.5.4 The difference in the users satisfaction scores among the three university
library must be non significant with respect to Document Delivery Service.

4.5.5 The difference in the users satisfaction scores among the three university
library must be non significant with respect to Reading Facility.

4.5.6 The difference in the users satisfaction scores among the three university
library must be non significant with respect to Reference and Documentation
Service.

4.5.7 The difference in the users satisfaction scores among the three university
library must be non significant with respect to Personal Attention Paid by the
Library Staff.
4.6 Scope and Limitations of the Study

The present study includes in its scope the analysis of various aspects of retroconversion of documents of selected libraries of this study. The scope of the research entitled “User Satisfaction In Zakir Hussain Library, Jamia Millia Islamia; Central Library, Jawahar Lal Nehru University; Maulana Azad Library, Aligarh Muslim University: A Comparative Study” is limited to only the two libraries of New Delhi namely: Zakir Husain Library, JMI, Central Library, Jawahar Lal Nehru and one libraries of Aligarh namely: Maulana Azad Library, Aligarh Muslim University. These libraries are well-established, well recognized and well reputed libraries in India as well as abroad.

It is necessary to draw some limitations specific to this research. The limitations are mostly based on these factors: time, geographical location and selection of library and area of study. This limitation was necessary to develop worthwhile norms towards the accomplishment of the present study. The investigator was able to identify some of the major limitations such as,

4.6.1 The limitation of time is associated with the period of research. In the other words, the time of gathering information from questionnaires takes more time.

4.6.2 The present study consists of the two libraries of New Delhi and one of Aligarh. The questionnaires were distributed to library users.

4.6.3 It is also necessary to narrow down the geographical areas of study because selecting a much wider area tends to defuse the results and findings in a research works; therefore, such a study will not be feasible if a much wider geographical area is taken into consideration. In view of these factors, the present study confines its scope and limitation to the two-selected libraries of New Delhi and one-selected library of Aligarh. The geographical area is restricted in New Delhi and Aligarh.

4.6.4 The responses have been taken from library users those who are the part of the under study libraries and those who have been using library services and are regular users of libraries.

4.7. Research Methodology

Satisfaction, being a state of mind cannot be counted as tangible goods. However, there are techniques to measure this psychological aspect. As a research
tool, attitude scales are used to measure such psychological aspects. The scale developed by Dineshan Koovakkai was used to measure the satisfaction of the users of three university libraries.

**USER SATISFACTION SCALE FOR ACADEMIC LIBRARIES (USSAL)**

The USSAL was developed by Dineshan Koovakkai in consultation with experts in Education and Psychology and by referring literature in both these fields and Library and Information Science. The scale has been published in the SRELS Journal of Information Management, 45(3), 2008, 349-354. The scale has been standardised using the standardisation techniques. The aspects of user satisfaction suggested by Rout (1982) were taken as the basis for the preparation of the scale. The components of user satisfaction suggested by him are the following:

1. Document acquisition service (strength of collection);
2. Document processing and house keeping service;
3. Document delivery service (loan service);
4. Reading facility;
5. Reference and documentation service; and
6. Personal attention paid by the library staff.

**i) Document Acquisition Service (Strength of Collection)**

Strength of collection is one of the most important factors which give satisfaction to the user community. The resources in the library such as books, periodicals, audio visual materials, electronic information resources etc. are to be strong in a library to provide better satisfaction to the users.

Statements 8, 16, 21, 24, 26, 27, 28, 35 and 40 in the scale are intended to measure this.

**ii) Document Processing and House Keeping Service**

To have a better access to the required information, the documents available should be processed and arranged in a helpful manner. This necessitates classification, cataloguing, indexing etc. Better document processing and house keeping services will provide better user satisfaction. The satisfaction of the users in the document processing and house keeping services is measured in this area.

Statements 1, 3, 4, 5, 6, 15, 18, 23, 25, 36, 43 and 44 of the scale are intended to measure this.

**iii) Document Delivery Service (Loan Service)**
Document delivery refers to the supply of documents to the users on demand either in original or its copy. An effective document delivery system will provide more satisfaction to the users. The satisfaction of the users in the document delivery system (loan service) of the concerned library is measured in this area.

Statements 29, 37, 38, 39, and 41 in the scale are intended to measure this.

iv) Reading Facility

The facilities provided by the library for the effective use of the library resources will provide better user satisfaction. The satisfaction of the users with regard to these facilities is measured in this area.

Statements 2, 9, 10, 12, 14, 33 and 34 in the scale are intended to measure this.

v) Reference and Documentation Service

Reference and documentation services include giving information to the users about the exact document, alerting service etc. The satisfaction of the users in these services of the library is measured in this area.

Statements 7 and 19 in the scale are intended.

vi) Personal Attention Paid by the Library Staff

The success and failure of an organization depends mainly on its human resources. In a library also, the staff members are the most important determinants of its success and efficiency. For achieving better user satisfaction, the staff members of the library should be efficient and user friendly. The satisfaction of the users in the staff of the library is measured in this area.

Statements 11, 13, 17, 20, 22, 30, 31, 32 and 42 in the scale are intended to measure this.

MODE OF ANSWERING

The scale was so prepared that the users are to respond in either of three ways viz. Agree (A), Undecided (UD) and Disagree (D) by putting a tick mark (û) against the appropriate alternative against each statement.

4.8 TESTING OF SCALE

The items of the user satisfaction scale were tried out on a sample of 100 randomly selected users. The total scores of the 100 respondents were arranged in the descending order in order to find out the upper and lower groups. Items were selected by finding out the t-value of each statement as suggested by Edwards (1957) [3].

The value of t- is a measure of the extent to which a given statement differentiates between the high and low groups. Any statement having t-value equal
to or greater than 1.96 can be treated as relevant. There were 52 statements in the draft scale. The statements were selected considering the t-values. The statements which have t-value less than 1.96 were rejected from the draft scale. Thus the final scale is with 44 statements.

4.9 VALIDITY AND RELIABILITY OF THE SCALE

Validity

To ensure validity, the scale was prepared on the basis of the aspects of user satisfaction suggested by Rout (1982). Various scales in the areas of education and psychology were also consulted. This procedure and the expert opinions suggested that the scale is valid for the study.

Reliability

The Cronbach Alpha -coefficient of reliability is 0.94 (N=100) which implies that the scale is highly reliable.

4.10.1. Sample Size and Distributions

A total of 875 questionnaires were distributed to the user community of the libraries under study, of which 810, i.e., (92.57%) responses were received from the users. The investigator selected 777, i.e., (88.80%) responses and 33, i.e., (3.77%) questionnaires from the users were rejected because of incomplete responses from the respondents. Questionnaires received back were used for the analysis of data.

4.10.2. Library Wise Distribution of Sample

5.10.2.1. Zakir Husain Library, JMI, New Delhi

A sample of 300 questionnaires were administrated among the users, i.e., research scholars and faculty members of ZHL, JMI and a total of 275, i.e., (91.670%) questionnaires were returned, out of which 10, i.e., (3.33%) questionnaire were rejected because of incomplete responses from the users. Therefore, investigated selected 265, i.e., (88.33%) complete filled questionnaires from analysis.

5.10.2.2. Central Library, Jawahar Lal Nehru University, New Delhi

Another 175 questionnaires were distributed among the users of CLJNU, i.e., research scholars only and a total of 165, i.e., (94.29%) questionnaires were returned, out of which 13, i.e., (7.43%) questionnaires were rejected because of incomplete responses from the respondents. Therefore, investigator selected 152, i.e., (86.86%) filled questionnaire for analysis.

5.10.2.3. Maulana Azad Library, Aligarh Muslim University, Aligarh
Samples of 400 questionnaires were distributed among the users of MAI, AMU and total of 370, i.e., (92.50%) questionnaires were returned out of which 10, i.e., (2.50%) questionnaires were rejected because of incomplete responses from the respondents. Therefore, investigator selected 360, i.e., (90%) complete filled questionnaires for analysis

4.11. Data collection procedure

For the collecting of data, the investigator personally visited to three libraries and approached the Librarian for seeking permission to distribute the questionnaire to the users. Questionnaires were personally administrated among users of three respective libraries. Duly-filled questionnaires were collected back on same day or later in the next visit.

The investigator personally consulted the library staff and users, made an informal talk regarding user satisfaction and various aspects of their libraries.

4.12. Data Analysis Method

SCORING

The scale consists of positive as well as negative statements. Scoring is done by giving weights to the responses. There are three alternatives for the responses of each statement—Agree (A), Undecided (UD), and Disagree (D). For the positive statements 3 weights are given for Agree response, 2 weights are given for Undecided response and 1 weight is given to Disagree response. The scoring is reversed for the negative statements. The scoring is done as follows.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Positive</th>
<th>UD</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Negative</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Statements 1, 3, 4, 6, 7, 9, 12, 13, 15, 19, 22, 24, 26, 27, 30, 31, 32, 35, 36, 38, 40 and 43 are scored positively and Statements 2, 5, 8, 10, 11, 14, 16, 17, 18, 20, 21, 23, 25, 28, 29, 33, 34, 37, 39, 41, 42 and 44 are scored negatively.

The total score of a user on his/her satisfaction of the library resources/services will be obtained by adding the weights on all the 44 statements of the final scale. The level of satisfaction is determined on the basis of the mean score. As the final scale consists of 44 statements, the total score can vary from 44 (44 x 1) to 132 (44 x 3).
The scores were tabulated under three groups for all three university libraries. The mean(M), standard deviation(SD), standard error mean(SEM) of the scores obtained were calculated for all the aspects of user satisfaction mentioned by the Rout (1982).

1. Document acquisition service (strength of collection);
2. Document processing and housekeeping service;
3. Document delivery service (loan service);
4. Reading facility;
5. Reference and documentation service; and
6. Personal attention paid by the library staff.

The mean(M), standard deviation(SD), standard error mean(SEM) was compared among the universities to identify the correlation factor and the significance of difference was checked by calculating the value of ‘t’ among the groups for all the university libraries.

**USER SATISFACTION SCALE FOR ACADEMIC LIBRARIES (USSAL)**

**INSTRUCTIONS**

Some statements to measure the user satisfaction of your library are given on the following pages. Please read the statements carefully and mark your response in any of the three alternatives (A, UD, D). Please put tick mark (√) on A if you agree with the statement, UD if you are uncertain about it and D if you disagree.

**A: Agree  UD: Undecided  D: Disagree**

1. The back issues of the periodicals in the library are kept in proper order.: A UD D
2. The heat inside the library makes serious reading impossible.: A UD D
3. The periodicals in the library are properly indexed.: A UD D
4. The arrangement of reference books is in helpful order.: A UD D
5. The physical maintenance of reading materials is poor in the library.: A UD D
6. The materials in the library are accessible to all.: A UD D
7. User education facility in the library is adequate.: A UD D
8. Users' needs are not considered by the library while purchasing reading materials. : A UD D
9. The seats provided in the library are comfortable. : A UD D
10. The dust on the documents makes their use almost impossible. : A UD D
11. The staff will not be available in the sections always. : A UD D
12. The lighting facility is adequate in the library. : A UD D
13. The library staff members have adequate knowledge about the existence of information resources. : A UD D
14. The sound (noise) in the library is an obstacle for serious reading. : A UD D
15. The resources in the library are well catalogued. : A UD D
16. The resources in the library are inadequate to provide necessary information. : A UD D
17. The involvement of the library staff is not up to the mark. : A UD D
18. The catalogue in the library is difficult to use. : A UD D
19. There is good user guidance facility in the library. : A UD D
20. The total performance of the library staff is poor. : A UD D
21. The resources in the library do not provide up to date information. : A UD D
22. There is a good relationship between the library staff and the users. : A UD D
23. Old question papers of various examinations are not properly organized and made available to users: A UD D
24. The materials in the library are helpful in education/ research/ teaching. : A UD D
25. The textbooks needed for the preparation for examinations are scattered over different shelves in the library.: A UD D
26. One can depend on the materials in this library for preparing for examinations. : A UD D
27. The library documents are helpful for research. : A UD D
28. Audio-visual materials are not adequate in the library. : A UD D
29. The photocopying facility is not always provided by the library. : A UD D
30. The library staff members are helpful. : A UD D
31. The staff members of the library are co-operative. : A UD D
32. The behaviour of the library staff is good. : A UD D
33. Serious reading is impossible in the reference section as it is over crowded always. : A UD D
34. The pages of most of the necessary reading materials in the library are mutilated/missing. : A UD D
35. Users get ample opportunities for study and research through internet from the Library : A UD D
36. The working time of the library is convenient. : A UD D
37. The book issue and return procedures are complex. : A UD D
38. The fine collected for overdue books is reasonable. : A UD D
39. The number of documents issued by the library at a time is not adequate. : A UD D
40. The library materials providing information about training and education opportunities are useful. : A UD D
41. The formalities for photocopying are complex. : A UD D
42. The quality of the library staff is to be improved. : A UD D
43. Display of important notifications on the notice board of the library helps the users to a great extent. : A UD D
44. Different class numbers given to related materials cause scattering of the materials in the library : A UD D
REFERENCES


