USER SATISFACTION IN ZAKIR HUSAIN LIBRARY, JAMIA MILLIA ISLAMIA; CENTRAL LIBRARY, JAWAHAR LAL NEHRU UNIVERSITY; MAULANA AZAD LIBRARY, ALIGARH MUSLIM UNIVERSITY: A COMPARATIVE STUDY

ABSTRACT

OF THE
THESIS

SUBMITTED FOR THE AWARD OF THE DEGREE OF

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BY

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ABSTRACT

Academic libraries are currently facing their greatest challenge since the explosion of literature. The global digital revolution is affecting both the traditional forms of the creation, organization and dissemination of knowledge. The universities are supposed to create a new paradigm of tertiary education with sound academic library system and security of its future. Retaining and growing their customer base and focusing more energy on meeting their users’ expectations is the only way for academic libraries to survive in this volatile competitive environment. Competitive pressures, information availability, rising costs and an increasingly aware and selective student population mandate that academic libraries become more user focused. This calls for a better understanding of the specific needs of library users in order to provide the appropriate type and level of service that meets those needs. Today’s academic libraries are confronted with challenges on several fronts: Megabookstores, online information providers, multimedia products, document delivery services, and other competitive sources of information are apparently threatening their role and even their very survival. They need to ensure that their services both meet customer needs and customer expectations to the highest degree. That is, they need to compete both in terms of service quality and customer satisfaction. The term customer satisfaction is being used synonymously and it is the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviors such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization’s products. The work done by Parasuraman, Zeithaml and Berry between 1985 and 1988 provides the basis for the measurement of customer satisfaction with a service by using the gap between the customer’s expectation of performance and their perceived experience of performance. This provides the measurer with a satisfaction “gap” which is objective and quantitative in nature. Work done by Cronin and Taylor propose the “confirmation/disconfirmation” theory of combining the "gap" described by Parasuraman, Zeithaml and Berry as two different measures (perception and expectation of performance) into a single measurement of performance according to expectation.
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.

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”.

According to Sparck Jones (1981: p.55) stressed the importance of user satisfaction and considered it as the basic concept of information retrieval system evaluation that could not be ignored in any experiment.

According to Su (1992) user satisfaction has the following advantages: (i) it takes explicit account of users and their subjective evaluation of various aspects of the IR interaction; (ii) it focuses on multi-dimensional evaluation of the interactive processes and (iii) it also recognizes user and request characteristics as among possible influencing factors in user evaluation.

The term ‘User’ is employed to represent the seekers of information. The term ‘User’ in the context of information chain may be at the end. The generator of information, who comes in the beginning of the chain may also be an ‘end-user’ of information. The user continuously interacts with the information unit. In fact, the very existence of an information unit owes to its users. The collection of varied sources of information, designing of an information unit, services planned - all are governed by his needs, attitudes, demands and characteristics. In fact the user is the focal point of all information systems. The user is involved in most operations of the documentary chain: He knows certain sources of information which he is able to weigh up and communicate. He can contribute to the selection of and sometimes even decide on new acquisitions. He can facilitate access to nonconventional literature about which he is more directly informed. He should help in developing some of the working tools such as the documentary language, analysis grids, file structure and formats; and he may or may not be closely associated with contents description, the formulation of search strategies and the evaluation of search results. He utilises the products and services of the information unit and states what he wants.
and how it should be presented. He also plays a key role in the circulation of information. The user is the essential consideration to the design, evaluation, improvement, adaptation, stimulation and the operation of the information system.

The needs of the users vary with the kind of the user. The user's needs are to be satisfied at the earliest possible time. However, most of the users cannot express their wants properly and clearly. It is the job of the information specialist to make the user comfortable and then elicit his needs by putting a series of questions. As the work progresses and time passes, users needs also change. Once user's needs are analysed, information sources are to be identified. The information is to be provided in a form that is assimilable to the user. While, collecting information to design a system in consonance with the users' needs, several methods have to be used to complement, balance and minimise any individual bias. Ms. Pauline Atherton listed the following twenty different methods of collecting information about users' needs:

1. Study the organisational chart of the institution.
2. Study of its functions/activities chart.
3. Study of its annual reports, project reports and other publications.
4. Survey of users' requirements using questionnaire.
5. Interviewing users.
6. Study of papers, books etc. published by the user.
7. Attending seminars, colloquia. etc. in which users participate.
8. Observing user at his work place (e.g., office, school, laboratory, factory, etc.).
9. Personal informal contacts with users.
10. Meeting users in small, preferably homogeneous groups periodically.
11. Feedback from information services rendered.
12. Providing for suggestions from users, about their subject interest, author interest, institutional interest, etc.
13. Attending technical meetings within the institution at which projects and problems may be discussed.
14. Scanning correspondence and reports prepared and received by user.
15. Study of documents used by user.
16. Study of reference queries received from users.
17. Participation in institutional/work orientation programmes.
18. While orienting and guiding users in using the libraries' resources, tools and techniques.
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 focuses on a personal, emotional reaction to service. A careful attention to both increases customer retention and staff satisfaction and empowerment. User satisfaction makes it imperative to understand better and define specific student needs and to provide the type and level of service that meets them.

Christopher Millson-Martula and Vanaja Menon asserted that one element of high-quality service is "the incorporation of users' personal needs and expectations into the development of programs and service." According to them, the continued success of a service organization such as an academic library depends on the organization's ability to adjust its products and services to correspond to user needs. Similarly, Peter Hernon and Phillip Calvert suggested that only customers justify the existence of a library. Danuta A. Nitecki also claimed that "the assessment of how well a library succeeds depends on the user as a judge of quality." As these views gain greater acceptance among academic librarians, librarians must orient themselves and their programs to become better service providers and address their problem-solving needs.

In 1973, Cooper described "utility" which required users to indicate their satisfaction with search results by assigning a monetary value to the retrieved documents. Soergel (1976) rejected Cooper's proposal that user satisfaction with search results was a valid measure of retrieval. Soergel discarded user satisfaction as a measure, maintaining that users may be satisfied with less than optimal search results, especially if a definitive assessment is made only for the first iteration of results returned by the system. In particular, he cited the "user-distraction" phenomenon whereby a user, upon receiving an irrelevant document from the IR system in response to some search operation, might still express satisfaction with the irrelevant search result. He recommended, therefore, that helping users in completing their search tasks successfully should take priority over seeking their satisfaction. Belkin and Vickery (1985) warned, like Tessier et al. before them, of the many problems associated with satisfaction criteria. These problems arose from the ambiguous
definition of "satisfaction" and how to measure it. Hildreth (2001) further questioned the reliability of the satisfaction criterion as a measure due to its lack of independence from other influential factors in the retrieval procedure. When used as a performance measure in IR system evaluation, it can be easily affected by non-performance factors that may confound the results. This concern was especially critical if the actual performance factors being measured were the quality of search results or assessments of search success as judged by the users. Hildreth posited that end users of IR systems often expressed satisfaction both with their results and with the overall performance of the system, even when objective analysis of the results showed them to be poor. Moreover, Hildreth argued that evaluation studies that relied on measures such as user perception of ease of use and subjective satisfaction with the search results did not provide a clear and consistent answer as to how user satisfaction may predict their actual search effectiveness. He found that user perception of ease of use had an effect, possibly greater than the results themselves, on user satisfaction. Harter and Hert (1997) reported that satisfaction has been the most widely used evaluation concept in information system evaluation. The researcher reviewed the literature on Management of Information Systems (MIS) and Library Information Systems (LIS) on the use of the satisfaction criterion in information system research and evaluation. The earlier studies had substantially different conclusions on the applicability of user satisfaction in user-oriented evaluation. For example, Hildreth (2001) asserted that user satisfaction was a false measure when used in predicting system success; while other researchers (e.g., Gatian, 1994; Gluck, 1996; Huffman and Hochster, 2007) found that user satisfaction was significantly associated with system effectiveness. According to previous studies there is a confusing picture on the applicability of user satisfaction as a measure of system effectiveness. Furthermore, it was illustrated that while users searching in two systems with different effectiveness; users were significantly more satisfied with the superior system as compared to their satisfaction with the inferior system. The results from various study also confirmed that user satisfaction was influenced by several factors such as, user effectiveness, system effectiveness, user effort, and user expectation.

User satisfaction is a subjective variable which can be influenced by several factors such as system effectiveness, user effectiveness, user effort and user characteristics and expectations. From this point of view, though libraries are non-profitable organization. They should be more concerned on how to bring satisfactory
services when offering information and data to readers. Hence, “user satisfaction” is what libraries always devote their efforts to pursue. User satisfaction comes from service quality, which is based on whether users are satisfied or not. Therefore, to improve service quality is to provide services that meet user’s expectations and satisfy their needs. When readers are not satisfied, it is inferred that there is something wrong with the library. Thus, to study the user’s satisfaction holds an important place in order to know how well the library is successful in its effort to reach its ultimate goal i.e. users satisfaction.

In the literature there are two definitions for user satisfaction, ‘User satisfaction’ and ‘User Information Satisfaction’ is used interchangeably. According to Doll and Torkzadeh (1988) ‘user satisfaction’ is defined as “the opinion of the user about a specific computer application, which they use”. Ives et al. (1983) defined ‘User Information Satisfaction’ as “the extent to which users believe the information system available to them meets their information requirements.” Other terms for User Information Satisfaction are “system acceptance” (Igersheim, 1976), “perceived usefulness” (Larcker and Lessig, 1980), “MIS appreciation” (Swanson, 1974) and “feelings about information system” (Maish, 1979). Angen Koh (1997) have described user information satisfaction (UIS) as “a perceptual or subjective measure of system success”. This means that user information satisfaction will differ in meaning and significance from person to person. In other words, users who are equally satisfied with the same system according to one definition and measure may not be equally satisfied according to another.

Library User Satisfaction

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 to improve the collection, services and the environment, if necessary. 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. While user satisfaction is defined, in
general, as the degree to which the library is able to meet the demands of the user.
this concept has been measured and used in a variety of ways. This diversity indicates
both the complexity of the construct and the lack of consensus among librarians
concerning its measurement and use. Consequently, interpretation of the literature is
open to question. User satisfaction is considered as a reliable criterion for determining
library effectiveness. Therefore, in order to improve user satisfaction and their overall
perception of library effectiveness, libraries should make concerted efforts to consider
all possible factors associated with user satisfaction.

Customers or users are the greatest asset for any organization. They need, as
Wing says, to be treated as treasured, long-term investments that, if properly nurtured
and cultivated, will provide significant dividends. Service Quality encompasses the
relationship between the library and its clientele. It is often defined in terms of
customer expectations and the need for the organization to meet or exceed these
expectations. It involves the long-term, general examination of these expectations.

There are two major approaches to the evaluation of user satisfaction. One is
aimed at the library user and the other at library performance. In the first instance, the
library user is the object of study and his or her opinions provide the measure of user
satisfaction. In the second instance, user satisfaction is indirectly measured using a
certain number of indicators that determine the level of library performance. The
degree of user satisfaction is then assumed to be proportional to the level of library
performance. User satisfaction is a criterion that fosters the appreciation of how well
the library and the services offered to its public function. A number of studies view
satisfaction as the percentage of bibliographic items sought which are immediately
obtained or delivered (Rinkel & McCandless, 1983). The document availability index
can be quantified and easily investigated by models developed by Saracevic, Shaw,
and Kantor (1977), and others. This approach, however, deals with only one of the
multiple dimensions of user satisfaction. Under this approach, satisfaction is not well
addressed when evaluated from multiple criteria. A multidimensional approach
requires the use of survey research for the gathering of relevant aspects thought to
define library use and user satisfaction concepts. As stated by Bizimana (1991), Bizimana and Lajeunesse (1995) and Van House, Weil, and McClure (1990), the survey must collect information from patrons that allows for analyses of different sources of satisfaction and dissatisfaction in order to explain why some people use the library services while others do not. Unfortunately, this methodology does not directly yield any global measures of the degree of satisfaction.

A numerical index has to be developed using the sampled variables, which is what we propose. The motivation behind statistical evaluation is twofold: (1) the development of indices of library use and user satisfaction using relevant variables and (2) statistical inference. Indices could be valuable in studying relationships between measures of library use and measures of user satisfaction or other variables. These measures could permit comparison of different libraries (D’Elia & Walsh, 1985), as well as categorization of libraries or patrons (Van House & Childers, 1990). The construction and validation of such indices to assess general user satisfaction and library use could provide a useful instrument to study and diagnose various problems in libraries, and help managers with their decision making.

**Factors influencing user’s satisfaction**

Maskari and Sanderson investigated the factors influencing the users' satisfaction. They are as follows:

**System effectiveness**

System effectiveness measures how well a given IR system achieves its objective. Traditionally, system retrieval effectiveness is measured in terms of precision and recall. These two parameters characterise the ability of the system to retrieve relevant documents and avoid irrelevant ones.

**User effectiveness** User effectiveness is defined as the accuracy and completeness with which users achieve certain goals. User effectiveness can be measured by the following criteria: (i) the number of tasks successfully completed, (ii) number of relevant documents obtained, and (iii) the time taken by users to complete set tasks. Indicators of effectiveness also include quality of solution and error rates. User effectiveness is different from system effectiveness, for example system effectiveness is measured objectively by the number of relevant documents retrieved by the IR system, whereas user effectiveness is measured by the number of relevant documents saved by the users from the number of relevant documents retrieved by the IR system.
User effort

User effort can be defined in a similar way to the definition of "information searching behavior". The information searching behaviour is the user search behaviour when interacting with an IR system to search for relevant information. User effort can be measured by the number of clicks, number of queries and number of query reformulations, and rank position accessed to obtain relevant information. Lancaster (1969) also considers the amount of effort expended during the search as one the critical features affecting user satisfaction. Expected search length (ESL) by Cooper (1968) is also a form of user effort; ESL is the average number of documents examined to retrieve a given number of relevant documents.

Conclusion

The libraries are changing from storehouse of books to dynamic service center. In library, the user needs the library services on a wide range of areas and anytime. The delay in giving the right information in right time may lead to delay in their research activity, which leads to delay in filing for patent. Hence, the librarians should always be a step ahead of their users. The libraries need to provide web-based library and information services to the users under intranet and Internet environment. It is also noted that there is great desire among the users to implement the library and information service through company website. There is also a need to plan an integrated training programmes for the users as well as the library staff for an effective utilization of services. A regular feedback from the users will also go a long way in improving the library services.

1.1 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 centres. 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. 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.

1.2 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.

1.3 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.

1.4 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.

1.4.1 To find out the overall user satisfaction in the Zakir Husain Library, JMI university.
1.4.2 To find out the overall user satisfaction in the Central Library, Jawahar Lal Nehru university.
1.4.3 To find out the overall user satisfaction in the Maulana Azad Library, Aligarh Muslim university, Aligarh.
1.4.4 To find out the user satisfaction in all the three university libraries with regard to Document acquisition Service.
1.4.5 To find out the user satisfaction in all the three university libraries with regard to Document Processing and House Keeping Service.
1.4.6 To find out the user satisfaction in all the three university libraries with regard to Document Delivery Service.
1.4.7 To find out the user satisfaction in all the three university libraries with regard to Reading Facility.

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

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

1.5 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.

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

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

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

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

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

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

1.5.7 The difference in the users satisfaction scores among the three university libraries must be non significant with respect to Personal Attention Paid by the Library Staff.

1.6 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,

1.6.1 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.

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

1.6.3 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.

1.6.4 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.

1.7. 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.
1.8 Organization of thesis

This thesis consists of six chapters such as Introduction, Profile of Libraries, Review of related literature, Research methodology, Data analysis and interpretation, Findings, Tenability of hypothesis, conclusion and suggestions.

Chapter 1 provides an introduction to the user satisfaction, including the background studies, statement of the problem, research objectives, hypothesis, scope and limitations of the research. It also summarises the research methodology of the present study.

Chapter 2 deals with the brief outline of the university library system in India. It also examines the profile of three university libraries such as history and background, collections, staff, users and present status etc.

Chapter 3 presents the literature review of the researches undertaken on user satisfaction, its methodology and findings in brief.

Chapter 4 presents the research strategies and detailed processes and methods of conducting their survey on user satisfaction scale.

Chapter 5 presents the detailed results of the data analysis and interpretation.

Chapter 6 describes the findings, tenability of hypotheses, conclusion. This chapter also indicates some suggestions for further research.
REFERENCES


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Dated: 17-2-2012

CERTIFICATE

This is to certify that the thesis 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”, which is being submitted by Keshwar Jahan in fulfillment of the requirements for the award of the Degree of Doctor of Philosophy in Library and Information Science is an authentic record of the candidate own independent and original research work carried out by him under my supervision and guidance. To the best my knowledge, the matter embodied in this thesis has not been submitted in part or full to any other university or institute for the award of any degree.

Dr. Mehtab Alam Ansari  
(Assistant Professor)
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Keshwar Jahan

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<td>Anglo American Cataloguing Rule</td>
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<td>ALA</td>
<td>American Library Association</td>
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<td>3.</td>
<td>ANOVA</td>
<td>Analysis Of Variance</td>
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<td>AMU</td>
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<td>CA</td>
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<td>CAS</td>
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<td>Cost Benefit Analysis</td>
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<td>CCTV</td>
<td>Close Circuit TV</td>
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<td>10.</td>
<td>CEA</td>
<td>Cost Effectiveness Analysis</td>
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<td>CDRI</td>
<td>Central Drug Research Institute</td>
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<td>CD-ROM</td>
<td>Compact Disk -Read Only Memory</td>
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<td>CDS/ISIS</td>
<td>Computerised Documentation Service / Integrated Set of Information Systems</td>
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<td>COMARC</td>
<td>Cooperative Machine Readable Project</td>
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<td>Central Library</td>
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<td>CVT</td>
<td>Continuously Variable Transmission</td>
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<td>DPC</td>
<td>Development Policy Centre</td>
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<td>Digital Resource Centre</td>
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<td>Data Transfer Protocol</td>
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<td>ESL</td>
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<td>FTP</td>
<td>File Transfer Protocol</td>
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<td>30.</td>
<td>GUI</td>
<td>Graphical User Interface</td>
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<td>31.</td>
<td>HTML</td>
<td>Hyper Text Markup Language</td>
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<td>International Development Research Centre</td>
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<td>International Federation for Library Association</td>
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<td>38.</td>
<td>IR</td>
<td>Information Retrieval</td>
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<td>IOD</td>
<td>Indian Official Document Section</td>
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<td>NICNET</td>
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<td>RLIN</td>
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<td>SACO</td>
<td>Subject Authority Cooperative</td>
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<td>SDI</td>
<td>Selective Dissemination of Information</td>
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<td>SICI</td>
<td>Serial Item and Contribution Identifier</td>
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<td>User Satisfaction Scale For Academic Libraries</td>
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<td>Visual Display Unit</td>
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<td>VTLS</td>
<td>Virginia Tech Library Systems</td>
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<td>WLN</td>
<td>Washington Library Network</td>
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<td>WAN</td>
<td>Wide Area Network</td>
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<td>Zakir Husain Library, Jamia Millia Islamia</td>
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Chapter-1
Introduction
CHAPTER-1
INTRODUCTION

Academic libraries are currently facing their greatest challenge since the explosion of literature. The global digital revolution is affecting both the traditional forms of the creation, organization and dissemination of knowledge. The universities are supposed to create a new paradigm of tertiary education with sound academic library system and security of its future. Retaining and growing their customer base and focusing more energy on meeting their users' expectations is the only way for academic libraries to survive in this volatile competitive environment. Competitive pressures, information availability, rising costs and an increasingly aware and selective student population mandate that academic libraries become more user focused. This calls for a better understanding of the specific needs of library users in order to provide the appropriate type and level of service that meets those needs. Today's academic libraries are confronted with challenges on several fronts: Megabookstores, online information providers, multimedia products, document delivery services, and other competitive sources of information are apparently threatening their role and even their very survival. They need to ensure that their services both meet customer needs and customer expectations to the highest degree. That is, they need to compete both in terms of service quality and customer satisfaction. The term customer satisfaction is being used synonymously and it is the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviors such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products. The work done by Parasuraman, Zeithaml and Berry (Leonard L) between 1985 and 1988 provides the basis for the measurement of customer satisfaction with a service by using the gap between the customer's expectation of performance and their perceived experience of performance. This provides the measurer with a satisfaction "gap" which is objective and quantitative in nature. Work done by Cronin and Taylor propose the "confirmation/disconfirmation" theory of combining the "gap" described by Parasuraman, Zeithaml and Berry as two different measures (perception and
expectation of performance) into a single measurement of performance according to expectation.

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.

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”.

According to Sparck Jones (1981: p.55) stressed the importance of user satisfaction and considered it as the basic concept of information retrieval system evaluation that could not be ignored in any experiment.

According to Su (1992) user satisfaction has the following advantages: (i) it takes explicit account of users and their subjective evaluation of various aspects of the IR interaction; (ii) it focuses on multi-dimensional evaluation of the interactive processes and (iii) it also recognizes user and request characteristics as among possible influencing factors in user evaluation.

The term 'User' is employed to represent the seekers of information. The term 'User' in the context of information chain may be at the end. The generator of information, who comes in the beginning of the chain may also be an 'end-user' of information. The user continuously interacts with the information unit. In fact, the very existence of an information unit owes to its users. The collection of varied sources of information, designing of an information unit, services planned - all are governed by his needs, attitudes, demands and characteristics. In fact the user is the focal point of all information systems. The user is involved in most operations of the documentary chain: He knows certain sources of information which he is able to weigh up and communicate. He can contribute to the selection of and sometimes even decide on new acquisitions. He can facilitate access to nonconventional literature about which he is more directly informed. He should help in developing some of the working tools such as the documentary language, analysis grids, file structure and formats; and he may or may not be closely associated with contents
description, the formulation of search strategies and the evaluation of search results. He utilises the products and services of the information unit and states what he wants and how it should be presented. He also plays a key role in the circulation of information. The user is the essential consideration to the design, evaluation, improvement, adaptation, stimulation and the operation of the information system.

The needs of the users vary with the kind of the user. The user's needs are to be satisfied at the earliest possible time. However, most of the users cannot express their wants properly and clearly. It is the job of the information specialist to make the user comfortable and then elicit his needs by putting a series of questions. As the work progresses and time passes, users needs also change. Once user's needs are analysed, information sources are to be identified. The information is to be provided in a form that is assimilable to the user. While, collecting information to design a system in consonance with the users' needs, several methods have to be used to complement, balance and minimise any individual bias. Ms. Pauline Atherton listed the following twenty different methods of collecting information about users' needs:

1. Study the organisational chart of the institution.
2. Study of its functions/activities chart.
3. Study of its annual reports, project reports and other publications.
4. Survey of users' requirements using questionnaire.
5. Interviewing users.
6. Study of papers, books etc. published by the user.
7. Attending seminars, colloquia etc. in which users participate.
8. Observing user at his work place (e.g., office, school, laboratory, factory etc.).
9. Personal informal contacts with users.
10. Meeting users in small, preferably homogeneous groups periodically.
11. Feedback from information services rendered.
12. Providing for suggestions from users, about their subject interest, author interest, institutional interest, etc.
13. Attending technical meetings within the institution at which projects and problems may be discussed.
14. Scanning correspondence and reports prepared and received by user.
15. Study of documents used by user.
16. Study of reference queries received from users.
17. Participation in institutional/work orientation programmes.
18. While orienting and guiding users in using the libraries' resources, tools and techniques.

19. Study of classification schemes and handbooks.

20. Liaison

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 focuses on a personal emotional reaction to service. A careful attention to both increases customer retention and staff satisfaction and empowerment. User satisfaction makes it imperative to understand better and define specific student needs and to provide the type and level of service that meets them. Christopher Millson-Martula and Vanaja Menon asserted that one element of high quality service is "the incorporation of users' personal needs and expectations into the development of programs and service." According to them, the continued success of a service organization such as an academic library depends on the organization's ability to adjust its products and services to correspond to user needs. Similarly, Peter Hernon and Phillip Calvert suggested that only customers justify the existence of a library. Danuta A. Nitecki also claimed that "the assessment of how well a library succeeds depends on the user as a judge of quality." As these views gain greater acceptance among academic librarians, librarians must orient themselves and their programs to become better service providers and address their problem-solving needs.

In 1973, Cooper described "utility" which required users to indicate their satisfaction with search results by assigning a monetary value to the retrieved documents. Soergel (1976) rejected Cooper's proposal that user satisfaction with search results was a valid measure of retrieval. Soergel discarded user satisfaction as a measure, maintaining that users may be satisfied with less than optimal search results, especially if a definitive assessment is made only for the first iteration of results returned by the system. In particular, he cited the "user-distraction" phenomenon whereby a user, upon receiving an irrelevant document from the IR system in response to some search operation, might still express satisfaction with the irrelevant search result. He recommended, therefore, that helping users in completing their search tasks successfully should take priority over seeking their satisfaction. Belkin
and Vickery (1985) warned, like Tessier et al. before them, of the many problems associated with satisfaction criteria. These problems arose from the ambiguous definition of "satisfaction" and how to measure it. Hildreth (2001) further questioned the reliability of the satisfaction criterion as a measure due to its lack of independence from other influential factors in the retrieval procedure. When used as a performance measure in IR system evaluation, it can be easily affected by non-performance factors that may confound the results. This concern was especially critical if the actual performance factors being measured were the quality of search results or assessments of search success as judged by the users. Hildreth posited that end users of IR systems often expressed satisfaction both with their results and with the overall performance of the system, even when objective analysis of the results showed them to be poor. Moreover, Hildreth argued that evaluation studies that relied on measures such as user perception of ease of use and subjective satisfaction with the search results did not provide a clear and consistent answer as to how user satisfaction may predict their actual search effectiveness. He found that user perception of ease of use had an effect, possibly greater than the results themselves, on user satisfaction. Harter and Hert (1997) reported that satisfaction has been the most widely used evaluation concept in information system evaluation. The researcher reviewed the literature on Management of Information Systems (MIS) and Library Information Systems (LIS) on the use of the satisfaction criterion in information system research and evaluation. The earlier studies had substantially different conclusions on the applicability of user satisfaction in user-oriented evaluation. For example, Hildreth (2001) asserted that user satisfaction was a false measure when used in predicting system success; while other researchers (e.g., Gatian, 1994; Gluck, 1996; Huffman and Hochster, 2007) found that user satisfaction was significantly associated with system effectiveness. According to previous studies there is a confusing picture on the applicability of user satisfaction as a measure of system effectiveness. Furthermore, it was illustrated that while users searching in two systems with different effectiveness; users were significantly more satisfied with the superior system as compared to their satisfaction with the inferior system. The results from various study also confirmed that user satisfaction was influenced by several factors such as, user effectiveness, system effectiveness, user effort, and user expectation.

User satisfaction is a subjective variable which can be influenced by several factors such as system effectiveness, user effectiveness, user effort and user
characteristics and expectations. From this point of view, though libraries are non-profitable organization. They should be more concerned on how to bring satisfactory services when offering information and data to readers. Hence, "user satisfaction" is what libraries always devote their efforts to pursue. User satisfaction comes from service quality, which is based on whether users are satisfied or not. Therefore, to improve service quality is to provide services that meet user's expectations and satisfy their needs. When readers are not satisfied, it is inferred that there is something wrong with the library. Thus, to study the user's satisfaction holds an important place in order to know how well the library is successful in its effort to reach its ultimate goal i.e. users satisfaction.

In the literature there are two definitions for user satisfaction, "User satisfaction" and 'User Information Satisfaction' is used interchangeably. According to Doll and Torkzadeh (1988) 'user satisfaction’ is defined as “the opinion of the user about a specific computer application, which they use”. Ives et al. (1983) defined 'User Information Satisfaction' as “the extent to which users believe the information system available to them meets their information requirements.” Other terms for User Information Satisfaction are “system acceptance” (Igersheim, 1976), “perceived usefulness” (Larcker and Lessig, 1980), “MIS appreciation” (Swanson, 1974) and “feelings about information system” (Maish, 1979). Angen Koh (1997) have described user information satisfaction (UIS) as “a perceptual or subjective measure of system success”. This means that user information satisfaction will differ in meaning and significance from person to person. In other words, users who are equally satisfied with the same system according to one definition and measure may not be equally satisfied according to another.

Library User Satisfaction

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 to improve the collection. services and the environment, if necessary. 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 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. While user satisfaction is defined, in general, as the degree to which the library is able to meet the demands of the user, this concept has been measured and used in a variety of ways. This diversity indicates both the complexity of the construct and the lack of consensus among librarians concerning its measurement and use. Consequently, interpretation of the literature is open to question. User satisfaction is considered as a reliable criterion for determining library effectiveness. Therefore, in order to improve user satisfaction and their overall perception of library effectiveness, libraries should make concerted efforts to consider all possible factors associated with user satisfaction.

Customers or users are the greatest asset for any organization. They need, as Wing says, to be treated as treasured, long-term investments that, if properly nurtured and cultivated, will provide significant dividends. Service Quality encompasses the relationship between the library and its clientele. It is often defined in terms of customer expectations and the need for the organization to meet or exceed these expectations. It involves the long-term, general examination of these expectations.

There are two major approaches to the evaluation of user satisfaction. One is aimed at the library user and the other at library performance. In the first instance, the library user is the object of study and his or her opinions provide the measure of user satisfaction. In the second instance, user satisfaction is indirectly measured using a certain number of indicators that determine the level of library performance. The degree of user satisfaction is then assumed to be proportional to the level of library performance. User satisfaction is a criterion that fosters the appreciation of how well the library and the services offered to its public function. A number of studies view satisfaction as the percentage of bibliographic items sought which are immediately obtained or delivered (Rinkel & McCandless, 1983). The document availability index can be quantified and easily investigated by models developed by Saracevic, Shaw, and Kantor (1977), and others. This approach, however, deals with only one of the multiple dimensions of user satisfaction. Under this approach, satisfaction is not well
addressed when evaluated from multiple criteria. A multidimensional approach requires the use of survey research for the gathering of relevant aspects thought to define library use and user satisfaction concepts. As stated by Bizimana (1991), Bizimana and Lajeunesse (1995) and Van House, Weil, and McClure (1990), the survey must collect information from patrons that allows for analyses of different sources of satisfaction and dissatisfaction in order to explain why some people use the library services while others do not. Unfortunately, this methodology does not directly yield any global measures of the degree of satisfaction.

A numerical index has to be developed using the sampled variables, which is what we propose. The motivation behind statistical evaluation is twofold: (1) the development of indices of library use and user satisfaction using relevant variables and (2) statistical inference. Indices could be valuable in studying relationships between measures of library use and measures of user satisfaction or other variables. These measures could permit comparison of different libraries (D'Elia & Walsh, 1985), as well as categorization of libraries or patrons (Van House & Childers, 1990). The construction and validation of such indices to assess general user satisfaction and library use could provide a useful instrument to study and diagnose various problems in libraries, and help managers with their decision making.

Factors influencing user’s satisfaction

Maskari and Sanderson investigated the factors influencing the users' satisfaction. They are as follows:

System effectiveness

System effectiveness measures how well a given IR system achieves its objective. Traditionally, system retrieval effectiveness is measured in terms of precision and recall. These two parameters characterise the ability of the system to retrieve relevant documents and avoid irrelevant ones.

User effectiveness

User effectiveness is defined as the accuracy and completeness with which users achieve certain goals. User effectiveness can be measured by the following criteria: (i) the number of tasks successfully completed, (ii) number of relevant documents obtained, and (iii) the time taken by users to complete set tasks. Indicators of effectiveness also include quality of solution and error rates. User effectiveness is different from system effectiveness, for example system effectiveness is measured objectively by the number of relevant documents retrieved by the IR system, whereas user effectiveness is measured by the number of
relevant documents saved by the users from the number of relevant documents retrieved by the IR system.

**User effort**

User effort can be defined in a similar way to the definition of "information searching behavior". The information searching behaviour is the user search behaviour when interacting with an IR system to search for relevant information. User effort can be measured by the number of clicks, number of queries and number of query reformulations, and rank position accessed to obtain relevant information. Lancaster (1969) also considers the amount of effort expended during the search as one the critical features affecting user satisfaction. Expected search length (ESL) by Cooper (1968) is also a form of user effort; ESL is the average number of documents examined to retrieve a given number of relevant documents.

**Conclusion**

The libraries are changing from storehouse of books to dynamic service center. In library, the user needs the library services on a wide range of areas and anytime. The delay in giving the right information in right time may lead to delay in their research activity, which leads to delay in filing for patent. Hence, the librarians should always be a step ahead of their users. The libraries need to provide web-based library and information services to the users under intranet and Internet environment. It is also noted that there is great desire among the users to implement the library and information service through company website. There is also a need to plan an integrated training programmes for the users as well as the library staff for an effective utilization of services. A regular feedback from the users will also go a long way in improving the library services.

**1.1 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 centres. 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. 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.

1.2 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.

1.3 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.

1.4 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.

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

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

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

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

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

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

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

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

1.5 Hypotheses

There is no doubt that hypothesis is an important and indispensable tools 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.

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

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

1.5.3 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.

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

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

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

1.5.7 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.
1.6 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,

1.6.1 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.

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

1.6.3 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.

1.6.4 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.

1.7 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.

1.8 Organization of thesis

This thesis consists of six chapters such as Introduction, Profile of Libraries, Review of related literature, Research methodology, Data analysis and interpretation, Findings, Tenability of hypothesis, conclusion and suggestions.

Chapter 1 provides an introduction to the user satisfaction, including the background studies, statement of the problem, research objectives, hypothesis, scope and limitations of the research. It also summarises the research methodology of the present study.

Chapter 2 deals with the brief outline of the university library system in India. It also examines the profile of three university libraries such as history and background, collections, staff, users and present status etc.

Chapter 3 presents the literature review of the researches undertaken on user satisfaction, its methodology and findings in brief.

Chapter 4 presents the research strategies and detailed processes and methods of conducting the survey on user satisfaction scale.

Chapter 5 presents the detailed results of the data analysis and interpretation.

Chapter 6 describes the findings, tenability of hypotheses, conclusion. This chapter also indicates some suggestions for further research.
REFERENCES


Chapter-2
Profile of libraries
CHAPTER 2
PROFILE OF LIBRARIES

This chapter deals with an overall introduction about the under study libraries, its collection, users, staff and services in a systematic manner.

2.0 Concept of Library

The world has witnessed several information revolutions in the past. The first was 6000 years ago when writing was invented, which made the way for the development of manuscripts. The second information revolution took place in 1300 BC when the first written book was published. The third information revolution ‘the invention of printing press’ in 1455 AD initiated a new form of revolution called the document revolution. The Guttenberg’s invention brought vast quantities of uniform inexpensive reading materials to the mass. This led to the development of agencies to collect, store and circulate the printing materials to the needy public. These agencies are called libraries. Libraries began as a place where all the cultural and scientific records of the early societies were kept. Archives and libraries were maintained from as far back as third millennium BC. The greatest library of the ancient times was the one at Alexandria. The libraries have transformed drastically from the storehouses for books and journals to the powerhouses of knowledge and information since the middle of the 20th century. The information and communication technology, which is responsible for this revolution has drastically changed the organization, management and functioning of modern libraries. Modern libraries are increasingly being redefined as places to get unrestricted access to information in many formats and from many sources. In addition to providing materials, they also provide the services of specialists, librarians, who are experts at finding and organizing information and at interpreting information needs. More recently, libraries are understood as extending beyond the physical walls of a building, by including material accessible by electronic means, and by providing the assistance of librarians in navigating and analyzing tremendous amounts of knowledge with a variety of digital tools.

The term "library" has itself acquired a secondary meaning: "a collection of useful material for common use".

According to S.R. Ranganathan, “A library is a public institute or establishment charged with the care of the collection of books, the duty of making them accessible to those who required the use of them and the task of converting
every person in its neighborhood into a habitual library goers and readers of a books’
thus a library is regarded as a public institution which is also expected to convert the
potential readers into actual readers.

A.L.A. Glossary of Library and Information Science has defined library as:
“a collection of materials organized to provide physical, bibliographical, and
intellectual access to a target group, with a staff that is trained to provide services and
programmes related to the information needs of the target group. ”

2.1 Objectives and Functions of the Library

The library aims at providing the necessary information and making them
available to all the beneficiaries in the appropriate time. Generally, the objectives of
library depend upon the types of library. The objectives of library are fulfilled through
the functions and operations. A library function is a function that can be called by a
program to perform some task, but it is not part of the program itself. Usually library
functions are collected together into libraries, which comprise suites of functions that
are loosely related in some way. A library should provide for lifelong self-education.
Information/ documents on all subjects including local, national, international affairs
to serve economic political and social welfare, Proper use of leisure, Advancement of
culture and Preservation of literacy heritage for posterity.

The word Library has been derived from the Latin word “Liber” meaning
book. A library is a collection of sources, resources, and services and the structure in
which it is housed; it is organized for the use and maintained by a public body, an
institution or a private individual. It can mean the collection itself, the building or
room that houses such a collection, or both. Library is a collection of information
sources in print or other forms that is organized and made accessible for reading or
study.

In other words Library is a store house of information which consists of both
book and non-book materials. It is considered as the most important place from where
information in any field of knowledge can be obtained easily from different sources.

2.2 Types of Library

Libraries can be divided into categories by several methods; by the entity : by
the type of documents or materials they hold; by the subject matter of documents; by
the users etc. The categories by traditional professional divisions are as under:
(i) National library: It is a library specifically established by the government of a country to serve as the preeminent repository of information for that country.

(ii) Public library: It is an institution maintained for and by the community primarily for the social purpose of providing easy opportunity for self education throughout life of every person of the community.

(iii) Special library: It is a library that is concerned almost exclusively with the literature of a particular subject or group of subjects. It also includes libraries with the collection of a particular form of material.

(iv) Academic library: A library, which serves an institution of higher learning, such as a college or a university. Academic Library serve two complementary purposes: to support the school's curriculum and to support the research of the university faculty and students.

2.2.1 ACADEMIC LIBRARY:

An Academic Library is a library attached to an academic institution, i.e., an institution engaged in teaching or research and imparts formal education to students who aspire to complete a particular course under a prescribed syllabus. Schools, Colleges, Universities and technological/ engineering/ medical institutions are some of such institutions. There are various types of academic institutions, which may vary from one another in respect of courses offered by them. Academic libraries exist to cater the needs and requirements of their parent academic institution; they vary in shape, size, collection and services, depending upon the nature of the parent institution. For example, libraries attached to a school, college, and even to an undergraduate college or a post graduate college or a medical college or an engineering college would be different from the rest in respect of the collection, shape, size and services. However, all academic libraries have common qualities in many respects. It is because all academic libraries exist to support the teaching and research programmes of their parent institutions. Besides having a good collection of reference books on variety of subjects, these emphasize on building up a strong collection concerning the courses offered by the institution. The most important library is University Library. University library is an academic library and the effectiveness of a university library depends upon the quality and the degree of the success it provides to its users and the success of that library depends only on how efficiently it satisfies its users. In this modern age when everything have become
technically more advanced with regards to the use of computer and modern state of Art technologies, the university libraries are being upgraded by using advance technology such as digitization of documents, internet facilities, online databases, use of various kinds of library software’s etc. to provide better services to its user communities in less time thereby saving the time of the users.

2.2.2 Role of Academic Libraries

Academic libraries have the prime responsibility of shaping the future generation by making them rich in information. As knowledge is the main item, which is transacted and shared in the academic institutions, libraries in these institutions have to supplement the knowledge base of the academic community. The novice as well as veterans has to be satisfied by providing the appropriate information resources and services. The performance of a library in such an environment can be judged by measuring the satisfaction of the users comprising of the students, teachers and research scholars.

2.2.3 Types of Academic Libraries

1. University Library
2. College Library
3. School Library

2.2.4 University Library System

A university library is the heart of a university which circulates the life blood to the whole university by dissemination of knowledge through improved methods of communication of information to its clientele. A university library is regarded as the heart of a university, which shoulders the onerous responsibilities of higher education in the country. University Libraries deals with mainly Post Graduate students, Research Scholars and teachers. The main objectives of a modern University are imparting advanced knowledge to Post Graduates in different fields and providing necessary facilities to carry out research activities in specialized fields of knowledge with a view together new knowledge. University libraries can help the students and the scholars in their fields of activities by organizing knowledge, by making the knowledge accessible through catalogues, indexes and bibliographies, by personal service attention and advice. Libraries are needed in any country for the enrichment of knowledge of its citizens and to provide new scientific information to the scholar, and to scientific information to the scholar, and to satisfy the intellectual needs of the
educated at all stages of life by providing him facilities, to keep himself well-informed and to up-date professionally.

2.2.5 Collection in University Library

Building a library collection, which should be able to meet the needs of the teachers, students and research scholars adequately, is the major task of a university library. The collection of university library is categorized in three parts. Periodicals, journals, patents, standards, dissertations, research reports, conference proceedings, technical bulletins comes under the primary sources. Secondary periodicals, abstracting journals, indexing periodicals, books, encyclopedias dictionaries, directories yearbooks, monographs, and bibliographies etc are the secondary sources. whereas bibliography of bibliographies, catalogues of catalogues, list of encyclopedias, list of abstracting and indexing journals and guide to literature etc are catagorised under tertiary sources.

2.2.6 Services of University Library

Among the services provided by the university libraries, reference, circulation and inter library loan are the most common; these Services are being provided by more than 95% of the libraries. The services to be provided by university library are: lending service, provision of general and specific information, compilation of bibliographies, inter library loan, assistance in location of documents reader’s advisory service, document deliver service, documentation service, maintenance of clippings, reference service, referral service, reprographic service, translation service, extension service, display of new addition, literature search, bibliography instruction and library orientation.

2.2.7 Functions of the University Library System

Keeping in view these objectives of higher education in the country, the university library system should bear this onerous responsibilities. In order to achieve the objectives of university education, university libraries should re-design their activities in such a way that they may prove to be significant partners in 'conservation of knowledge and ideas, teaching, research, publications, extension services and interpretation of results of research.
PROFILE OF LIBRARIES

2.3.1 JAMIA MILLIA ISLAMIA UNIVERSITY

Jamia Millia Islamia, an institution originally established at Aligarh in India in 1920. Maulana Mehmud Hasan laid the foundation stone of Jamia Millia Islamia at Aligarh on Friday 29 Oct 1920. Hakim Ajmal Khan, Dr. Mukhtar Ahmed Ansari and Abdul Majeed Khwaja supported by Gandhiji, shifted Jamia from Aligarh to Karol bagh in New Delhi in 1925. In 1928 the leadership of Jamia moved into the hands of Dr. Zakir Hussain who became its Vice-Chancellor. In 1936 Jamia was shifted to new campus at Okhla. On 4 June 1939, Jamia Millia Islamia was registered as a society. In 1962, the UGC declared the Jamia ‘deemed to be university’. By a special act of the parliament, Jamia was made a central University of India in Dec. 1988. Many new courses at UG and PG levels have since been added. Beside its six faculties, Jamia has a number of centers of learning and research. The Jamia is also marching ahead in the field of information technology. Apart from this, the Jamia has a campus wide network, which connects a large number of its departments and offices.

2.3.2 Zakir Husain Library

The Library of Jamia Millia Islamia, Dr. Zakir Husain library was established with the establishment of the Jamia in 1920. The library was started first with a small collection donated by Maulana Mohd Ali Jauhar. The library was named Dr. Zakir Husain library in 1973 on the name of the former Vice-Chancellor of Jamia Millia Islamia and former president of India. Dr. Zakir Husain Library is the central library of the Jamia library system, which includes various faculty libraries. The existing building covers an area of 22,900 sq. ft. A new central library building covered area of 1,06,850 sq. ft. The building has been designed to reflect the Jamia’s contemporary image and accommodate the ever-increasing demands of the modern library system.

2.3.3 Library Hours

Opening hours of library are divided accordingly to season.

<table>
<thead>
<tr>
<th>Season</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug-Oct</td>
<td>09:00 a.m – 10:00 p.m.</td>
</tr>
<tr>
<td>Nov-Feb</td>
<td>09:00 a.m -- midnight</td>
</tr>
<tr>
<td>Mar-May</td>
<td>09:00 a.m -- 02:00 a.m.</td>
</tr>
<tr>
<td>Jun – July</td>
<td>09:00 a.m -- 09:00p.m.</td>
</tr>
</tbody>
</table>

2.3.4 Membership

All the bonafide students, faculty members and other non teaching staff are the member of the library. At present there are approximately 14,718 member of the
2.3.5 Library Collection

Zakir Husain Library has total collection of 3.44 lakh books and bound volumes of periodicals, 2000 manuscripts, and 1100 thesis. It subscribes to 649 print journals, and provides access to 6,000 e-journals. The collection caters to the teaching and research programmes of all of Jamia’s teaching departments and research centers. It has a textbook Section of about 8,000 books. These are reserved books, which are made available for the consultation/overnight issues.

2.3.5.1 The Mohibbul Hasan Reference Collection

It comprises more than 5000 books in English, Arabic, Persian and Hindi, which covers encyclopedias, dictionaries, handbooks, almanacs, yearbooks, biographical sources, and E-reference sources. Some reference source are available in CD format and online, and cab be accessed throughout Jamia on the website.

2.3.5.2 Print Journals

Library subscribes 649 journals, out of these 166 journal subscribed are international and receives 53 periodicals as gift / exchanges.

2.3.5.3 Urdu Collection

Collection of 30,000 books on life and literature, history and culture, medicine and science are available in urdu. All Urdu publications of Maktaba Jamia, Idara-e Taleem-o-Taraqqi, NCPUI, etc. are available. A rare collection on Hinduism, Sikhism, and Jainism compiled are in Urdu.

2.3.5.4 Arabic Collection

Collection of 5,000 books on Arab literature as well as reference material and writings of khalil Gibran, Taha Husain, Najuib Mahfooz, and Taufiqul Hakem are written in Arabic language. Computerized database can be viewed on dedicated terminals in the OPAC area. Print copies are available for reference.

2.3.5.5 Hindi Collection

Collection of 25,000 books on literature and also writings of Prem chand, Mahadevi Verma and other hindi collection are available. These Collection data can be accessed through online catalogue.

2.3.5.6 Manuscripts

Library has more than 2000 manuscripts on subjects like astronomy, astrology, music, Quarcic studies, Sufism, logic, philosophy, Unani medicine, mathematics,
Oriental Studies, and Hinduism. These are in Arabic, Persian, Urdu, Pasto, Punjabi and Brij Bhasha, and pertain to the period 1591-1922 AD.

2.3.6 Library Staff:
Zakir Husain Library has 51 total number of staff i.e., 01 Librarian, 01 Deputy Librarians, 06 Assistant Librarians, 01 Information Scientist, 14 Professional Assistant, 09 Semi-Professional Assistants, 18 Library Attendants, 01 Lecturer.

2.3.7 Library Services
Zakir Husain Library provides the following services to its users:

Lending Service: The library has made available the borrowing facilities of books between 9:00 am to 4:30 pm.

Reading Room Service: Reading and studying facilities for textbook collection is made available within the reading halls. The separate reading halls for scholars/teachers and PG students are available.

Orientation Programmes: Individual and group orientation programmes are available for digital resources and services.

Document Delivery Service: Bonafide members of the library can get reprints of journals/articles by filling up the form at the circulation counter.

Photocopy Service: The library provides photocopy services through private contractors. The services are located as a separate unit next to main entrance of the textbooks section. The users can approach the unit directly. They may also request the circulation counter. For any difficulty or assistance, the users may approach the Incharge of user services.

Inter Library Loan Service: The library offers inter library loan service to its users for the books, periodical and articles that are not available in the library. This service is provided on No profit-No loss basis and expected to be prompt. The library, in turn also lends its resources to the libraries of other government and academic institutions. Library has institutional memberships of DELNET, British Council Division, American Centre Library & INFLIBNET.

Document Procurement Services: Document procurement services can be made available from American Center Library, British Council Library, DELNET and INFLIBNET. For documents, the users will have to fill up a form available at the circulation counter and deposit it at the counter.

Internet Service: Library has introduced Internet service from 2003 to the bonafide members of the library. At present, the Internet service is available free of
cost from morning 9:00 am to 5:30 pm in all working days. The bonafide members are permitted to use this facility after entry in the logbook maintained at the library.

Reference Service: The library maintains a separate reference collection consisting of fast finding tools such as almanacs, atlases, biographical and language dictionaries, directories, handbooks and statistical compilations, encyclopedias, technical data, maps, films etc. The reference books are not issued but consulted within the library. The library provides the reprographic service in this section also. Reference services provides assistance with factual and research questions, subject guides on finding and using materials and Library instructions and research consultation.

2.3.8 Computerization

Library's LAN is linked with the fibre-optics backbone of Jamia's campus-wide WAN. The LAN has an Compaq Proliant server based.there are 11 laser printers, 02 bar-code label printers, 01 card printer, 06 hand-held bar-code scanners, and four flat-bed scanners operational at the related service points.

2.3.9 Internet facilities

The library is providing the facility of Internet access to the bonafide members of the library. The bonafide members can use the Internet in the library by producing their valid membership card to the staff of the library. The Library receives Content (TOC and indexed bibliographic records) from Informatics (India) electronically by FTP or e-mail every week. To promote application of IT in the use of Library Services, Dr. Zakir Husain Library has organized 8 major seminar/conferences. 16 exhibitions since 2002, and continues with education programmes for staff and library professionals across the country.

2.4.1 JAWAHARLAL NEHRU UNIVERSITY

Jawaharlal Nehru University is located in New Delhi, the capital city of India. Named after Jawaharlal Nehru (the first Prime Minister of India), it is a premier university in India. JNU was established in 1969, by an act of parliament, with the objective of promoting the study of principles of national integration, social justice, secularism, democratic way of life, international understanding and scientific approach in solving the problems of society. Over the years, it has been a model university in terms of academic excellence. Being unique of its kind in India, it is truly multinational and multicultural. A miniature India can be seen and felt in this residential university. Another objective of the founders of this university was to
make it a premier institution of higher learning for the students of the erstwhile Third World countries. The university from the very beginning was meant to be a centre for Third World studies. A third objective of the university has been to promote research and teaching leading to the increasing engagement of its students and teachers in higher level academic work and national and international policy making.

2.4.2 About The Library

The Library is located at the heart of an academic complex. It has a carpet area of about one lakh Sq. ft. A typical floor has a carpet area of about 6000 sq. ft. and the Ground Floor 50,000 sq. ft. Library is housed in a nine-story building. Being in the middle of the academic complex, it is easily accessible from all the School/ Centres in the academic complex. The Library has a total collection of 6 lakhs, which includes books, serials, non-book materials etc. The Library subscribes to 965 journals and also receives another 148 journals by way of gift and exchange. The collection is housed subject-wise on different floors under three major streams i.e. Social Sciences, Humanities and Sciences. List of Subscribed Print / Online journals is available at library web page. Now digitization process of newspaper clippings has been successfully started.

2.4.3 Library Hours

The Library remains open from 9.00 a.m. to 8.00 p.m. throughout the year and during the examination days, the working hours are extended upto 12 midnight for 45 days each semester. However, the Reading Room, Textbook Section also remains open upto 12 midnight. The General Reading Hall is being kept open round the clock throughout the year. The Library remains closed on three National Holidays and Holi festival each year.

2.4.4 Library Collection

The Library has adequate number of information resources to satisfy the information need of library users. The Library has a total collection of 6.30 lakhs, which includes books, serials, non-book materials etc. The faculty publications have been placed at the Ground Floor. The Library subscribes to 965 journals and also receives another 148 journals by way of gift and exchange. The collection is housed subject-wise on different floors under three major streams i.e. Social Sciences, Humanities and Sciences.
(i) **Online Journals and Databases**

Library provides access to 10,000 full-text e-journals/online databases. List of Subscribed Print / Online journals is available at library web page. The JCCC provides article-level access for all the journals subscribed by the UGC-INFONET Digital Library Consortium as well as journals subscribed by 22 university libraries designated as Inter-Library Loan (ILL) Centres of the INFLIBNET Centre. The interface provides hyper link to articles that are accessible in a given university so that a user can access and download articles accessible to his/her university. For articles from journals that are not accessible in a given university, the interface facilitates semi-automatic generation of ILL request directly from user(s) to the INFLIBNET Centre or to one of the ILL Centres as the case may be. All faculty, staff and students who are members of the Center Library JNU University are authorized to use ILL service. The requester should be registered member of the Central Library, JNU.

(ii) **Archives**

The Archives on Contemporary History set up in 1970 at the Jawaharlal University is a repository of variety of materials on the left wing movement in India. It is located on the sixth floor of the Library building. It houses the personal collections of late P.C. Joshi, the general secretary of the united Communist Party of India. Since its inception it has been considerably enriched by procuring collections gathered from other sources. Its holdings include photo copies, microfilms, cyclostyled, typed, handwritten and printed materials, in the form of booklets, handbills, pamphlets, books, newspapers, including the publications of the communist parties and various other left groups.

2.4.5 **Library Staff**

At present Central Library of JNU have at present 135 staff, i.e., 01 Librarian, 03 Deputy Librarians, 13 Assistant Librarians, 26 Professional Assistant, 29 Semi-Professional Assistants, 20 Library Attendants, etc.

2.4.6 **Library Services**

The central library of JNU provides many services, which categorized as follows:

(i) **General Services**

- Reference service is provided for each collection at the respective floor.
• Membership and Issue-Return services are centralized at the Ground floor.
• Textbooks on all disciplines are centralized and kept at the Textbook Section. Book Bank facility for MA students is also being provided from the Textbook Section.
• Document Delivery Services and Inter-Library Loan facilities are available at the Cyber Library Counter.
• Articles from Social Science Periodicals are indexed at Documentation Unit and online search is available through OPAC.
• Card Catalogues of different collections are available on respective floors.

(ii) Special Services
• Cyber Library: 200 PCs have been installed for students and research scholars to access INTERNET and online resources.
• Information Browsing Unit: The unit has been established for the faculty members for online information browsing.
• Helen Keller Unit: A special unit named Helen Keller Unit for the visually challenged students and researchers is located at the newly renovated Reading Hall.
• New Books Display: New Books purchased by the Library are displayed on every Monday. All these Books are kept for consultation at the Circulation Counter.
• CD-ROM: Access to CD-ROMs which comes along with books / journals and statistical data is available in the Automation Unit.
• Inter-Library Loan: Books and Articles are arranged from other Libraries under this facility through DELNET.
• Newspaper Clippings: About 12.45 lakh newspaper clippings on area studies and basic disciplines are available for students and research scholars of the University. The digitization process of newspaper clippings has been started.

(iii) Other Services
• Tracing File: Information about untraced books must be recorded in the tracing files kept on different floors of the Library.
• **Dissertations and Theses**: Metadata of theses and dissertation is available through OPAC.

• **Xerox Facility**: Managed by a private operator, this facility is available in the library on payment basis.

• **Tape Recorders & Audio Cassettes Library**: Provides these facilities to blind students.

• **Lockers**: Library provides lockers facility to the Research Scholars & Faculty Members, on request.

• **General Reading Hall**: This Hall is being kept open round the clock throughout the year. Students can read their personal books in the Reading Hall located at the back side of the Library.

### 2.5.1 ALIGARH MUSLIM UNIVERSITY

Aligarh Muslim University (A.M.U) is a premier central university in India. In the 19th century, Sir Syed Ahmad Khan created a modern educational institution that first as M. A.O. College and then since 1920 as Aligarh Muslim University, which has been the path breaker in bringing Muslim to modern scientific fields and education. Sir Syed deemed it necessary to make some special arrangement for their education. Aligarh’s “culture of decency” has a compelling appeal. There are 16 halls of residence comprising 69 hostels with more than 35000 students, 2000 around teachers and 7000 non-teaching staff. AMU has 12 faculties comprising a wide spectrum of academic disciplines, 91 departments, and 5 institution 13 centers. The university offers 289 courses. Students come from all over India and more than 500 hundred international students in the various academic disciplines from professional to research.

### 2.5.2 About the Library

Maulana Azad Library is regarded as second largest University Library of Asia with 11,86,139 books/documents (including departmental library) The foundation of the Library was laid in 1875 when Sir Syed Ahmad Khan, a great social reformer of his time. Lord Lytton laid the foundation stone of the Library, the then Viceroy of India. That is why; the Library was originally named as Lytton Library. The present grand seven storied building surrounded by 4.5 acres of land in 1960 was inaugurated by Late Pandit Jawaharlal Nehru, Prime Minister of India and was named as Maulana Azad Library, after the name of Maulana Abul Kalam Azad, the great
Educationist, Statesman & the first Education Minister of independent India. The Oriental Division of Maulana Azad Library comprising of about two lakh printed books and periodicals including 10,000 items belonging to rare category in Urdu/Persian/Arabic/Hindi & Sanskrit forms the most significant part of the collection. Donations received from great bibliophiles and literary persons are designated as special collections by the names of their donors. The Urdu collection with more than one lakh books on almost all aspects of Indian Life and Culture forms the largest part of Oriental Division. One of the most prized collections of the library is its collection of about 16000 rare manuscripts. Several royal decrees of Moghal emperors namely Babur, Akbar, Shahjahan, Aurangzeb, Shah Alam etc. and also translation of Sanskrit works such as Bhagwad Geeta, Mahabharata and Leelawati in Persian by Abul Faiz Faizi, a scholar in the court of Moghal Emperor Akbar are some of the highlights of the manuscripts collection of this Library.

M.A. Library are fully automated with LibSys software and using 3M security systems. About 5000 students, teachers and other members of the University visit the Library daily.

2.5.3 Library Hours

M.A. Library remains open for 18 hours a day on all days except a few national & religious holidays. During examination period open hours of library are further extended for 20 hours a day. M.A. Library is highly used library where various users i.e. Students, research scholars, faculty members, outsiders as guest member etc. visit the library. Being a residential University a large number of students utilize resources of the library. More than 5,000 users visit the library every day.

2.5.4 Library Collection

The collection consists of books, periodicals, pamphlets, manuscripts, paintings and photographs etc. M.A. Library performs the functions of a National Library so far as its collection of Oriental manuscripts are concerned. The oldest manuscript owned by the library is more than fourteen hundred years old. It is a fragment of the Holy Quran transcribed by Hazrat Ali, the fourth caliph of Islam and is written on parchment in Kufi script. Another rare collection is the Halnama of Beyazid Ansari, no copy of which is available anywhere else in the world. The Library has a sizeable collection of early printed books in various languages. The most outstanding among them is the Latin translation of the celebrated Arabic work on optics, opticam prafatis, by Ibn-al-Haitham (965-1039) published in 1572.
There are several farmans (decrees) of the Mughal kings like Babur, Akbar, Shahjahan, Shah Alam, Shah Alamgir, Aurangzeb etc. Another prized possession of the library is a “Shirt” on which the whole Quran is inscribed in khafi script. This shirt is believed to have been worn by a warrior of Mughal army.

Among the large collection of Mughal paintings is the painting of Red Blossom, which is a magnum opus of Mansoor Naqqash, the celebrated court artist of Emperor Jahangir. Some valuable Sanskrit works translated into Persian have also been preserved in the library. Other possessions worth mentioning is the Ayurved in Telugu and the Bhasa’s in Malayalam script written on palm leaves. Abul Faiz Faizi, an eminent scholar of Akbar’s court translated several Sanskrit works into Persian, such as Maha Puran, Bhagvat Gita, Mahabharat and Lila Wati, these are also available.

(i) **Manuscripts:** The library has 15162 manuscripts mostly in Persian and Arabic language pertaining to almost all disciplines and Research scholars pursuing their studies in Persian, Arabic, Urdu, History, Islamic Studies can use them. Now digitization of these manuscripts is in progress.

(ii) **Urdu Collection:** The library has the largest collection of Urdu literature specifically the Periodicals of 19th century in Urdu language that are very frequently consulted by Research scholars and readers pursuing their studies in Urdu literature, Journalism & History etc.

(iii) **Reference Collection:** The library has a specialized collection of reference books like Dictionaries, Encyclopedias, Guide books, Census publications, Biographical Sources, Geographical sources, Atlases, Gazetteers, Maps, Statistical information, etc.

(iv) **Microfiche Collection:** The Library has substantive number of microfiche pertaining to documents of historical importance.

(v) **Microfilms Collection:** Quite a good number of microfilms of printed books and manuscripts are also available in the library.

(vi) **Rare Books, Arts Books & Theses Collection:** The Library has a very large collection of rare books published in 18th & 19th century.

(vii) **Phonodiscs And Phonorecords:** The Library has a fine collection of phonodiscs of concerts, instrumental music, orchestral music, rhapsodies, sonateas, symphonies, etc. as well as phonodiscs of eastern
music including the performance and recordings of the eminent maestros of their times.

(viii) **Print and Online Journals:** Library procures more than 1188 journals including about 490 foreign journals and 698 Indian journals.

(ix) **Other Collections:** Sir Syed Collection, Ghandhiyan Collection, Aligarh Collection are also important collections of M.A. Library.

2.5.5 Library Staff

At present, Maulana Azad Library has 124 total number of professional staff, i.e., 01 Librarian Incharge, 04 Deputy Librarians, 01 Curator, 18 Assistant Librarians, 01 Information Scientist, 16 Professional Assistant, 38 Semi-Professional Assistants, 18 Library Attendants etc.

2.5.6 Library Services

M.A. Library provides number of services to the users like retrieval of information, orientation and bibliographic instructions, assistance in locating/searching of documents, advisory role, Current Awareness Service (CAS), Selective Dissemination of Information (SDI), Bibliographic Service, Inter Library Loan, Organization of Exhibitions, Press Clipping, Reprographic Service etc. Some of these services are noted below:

(i) **Circulation Service**

The Readers can make use of books and other reading material by use of resources within library and borrowing of books. Various categories of users i.e. Undergraduate, Postgraduate Students, Research Scholars, Faculty Members, Non-Teaching Staff may borrow the books.

(ii) **Reference Service**

Reference service is the most important service from the point of view of readers. Library has sufficient trained staff to help readers in locating the documents required by them. Library help the reader by : (i) Assisting research scholars in selection of topics for research and subsequent assistance by providing various Reference tools. (ii) Helping the users in how to use/locate the material and reference tools,i.e., Encyclopedias/dictionaries/biographies/year book/directories etc. (iii) Answering short/long-range queries of the users. The Library has further strengthened its reference Division by procuring new editions and entirely new reference tools during current year.
(iii) Bibliographic Services: M.A. Library also provides bibliographic services to the faculty members and research scholars on demand. The staff of research division prepares such bibliographies on request of Research Scholars.

(iv) Documentation Services: Library has published two bibliographies in the recent past (i) Sir Syed and Aligarh Movement: a select bibliography. (ii) Abul Kalam Azad: an annotated subject bibliography Library is also bringing out following regular publication. (i) M.A. Library Documentation Service (Urdu) : a quarterly index to Urdu periodical Literature received in Library.

(v) Current Awareness Services (CAS)

The Library had started this service as content page service. Contents of all new issues of journals received in the library are being photocopied before transfer to respective department and this is sent to various departments. It is being widely appreciated. Digitization of Manuscripts and Printed Rare Book Material Library has started digitization of manuscripts and some rare printed material. In this respect, we have so far digitized around 150 manuscripts and rare printed bi-lingual publication brought out by Sir Syed Ahmad Khan i.e. Aligarh Institute Gazette from 1864-1922. We have also digitized all files of Tehzibul Akhlaq.

(vi) On-Line Journals Service: Maulana Azad Library has established an on-line journals lab. with 20 nodes. It is connected with the main server of Computer Centre through optical fibre. They are getting around 4,000 on-line journals under UGC-Info net programme. About 300 on-line journals are available under free on-line scheme of various publishers. About 700 research scholars and teachers are presently getting benefited through this service.

(vii) Inter Library Loan Service: The Library obtains the required document on Inter Library Loan if it is not available in the library. It also offers the documents to other libraries on Inter-Library Loan.

(viii) Extension Services: Extension services provided by the Library are:
(i) Organizing of Exhibition of Book/Photographs on various occasions.
(ii) Book release functions.

2.5.7 Division/Sections
(i) Manuscripts Division:

The Manuscript Division is the most prestigious Division of the Library. Some of our Manuscripts are invaluable for the scholars in the academic world. These manuscript are consulted with the permission of University Librarian within the
Division. The manuscripts are kept under tight security with continuous vigil in air-conditioned environment. At present, the Division has following number of manuscripts in different languages.

(ii) Oriental Division

Oriental Division is also very important Division of the Library, consisting of following Sections i.e. Urdu, Arabic, Persian, Hindi and Sanskrit. The Division is very rich in collection. We regularly receive a large number of publications as gratis from various parts of the world thereby enriching our collection. Personal collections have also been donated to Library by number of scholars.

(iii) Reprographic Section: The main purpose of Reprographic Section is to help in achieving objectives of the Library. This section Xeroxed copies, scanned and prepared CD's for exposures and colour exposures were prepared on the occasion of exhibitions, functions and visiting dignitaries.

(iv) Binding Section: Binding Section supports the library indirectly. It bounds documents i.e. books, journals, newspapers, test/examination papers etc.

(v) Online Journal Section

The library provides the whole university campus wide access to online journals through a well-equipped Computer Lab. M.A. Library has setup computer section to keep pace with the modern times. The Library acquired LIBSYS Software package, for computerization purposes. Library now has about 80 IBM P-IV and a new IBM Server X-320 series with high configuration. Retrospective data conversion is being modified in LIBSYS format. Library personnel have been trained in various modules of LIBSYS. The Section has started house keeping operations in Acquisition, Periodical, Technical Division and Circulation. OPAC (Online Public Access Catalogue) is now being visited by large number of readers.

Special Features: (a) The library has good collection of phonodiscs concerts, instrumental music, orchestral music, scants, symphonies etc. as well as phonodiscs of western music. (b) The library has thousands of microfiche which contain some of the important items as Census of India 1872-1951, Indian Register (India Office List) from 1771 to 1947, Selection from Dispatches to the Government of India from 1858 to 1936 and some priceless journals published during last two centuries.

(vi) Digital Resource Center

Digital Resources on many subjects are made accessible through a Digital Resource Centre, established in January 2009 in the Library.
2.5.8 Modern CCTV

It installed in the Library not only gives the pictures of the different areas of the Library but also has facilities of recording and infrared photography. The present system of CCTV is also a boon for the security of the invaluable collection of manuscripts, as in case of any intrusion in odd hours; the system will send messages to three authorized persons.

2.5.9 Library Security System

M. A Library, Aligarh implement the 3M Library Systems to improve the efficiency, productivity and customer service of their libraries by offering security, productivity and information management solutions that harness technology to help create a more human library, one that allows librarians to spend more time helping people.

Conclusion

The basic function of the library is educative. Realizing the importance of libraries in the fulfillment of objectives of higher education, the UGC advocated that the library is the central place for all the university’s work; directly so as records its research work and indirectly as regards its educational work, which derives its life from research work.” Any discussion of the organization, administration and functions of the university library should be related to the university. This is because the library tries to translate the objectives of the university. The library has to support the teaching and research of the university.
REFERENCES


Chapter-3
Review of Related Literature
CHAPTER-3
REVIEW OF RELATED LITERATURE

Review of related literature is very essential in a new research topic. The study of related literature implies locating, reading and evaluating reports of research as well as report of casual observation and opinion that are related to the individuals planned research projects. A literature review is a critical and in depth evaluation of previous research. It is a summary and synopsis of a particular area of research, allowing anybody reading the paper to establish why you are pursuing this particular research program. A good literature review expands upon the reasons behind selecting a particular research question.

Literature review is a body of text that aims to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and as such, do not report any new or original experimental work. In any worthwhile study in a field of research, the researcher must have an adequate knowledge with the work that has already been done in the area of his research. Investigator must have up-to-date information about what has been thought and done in the area of his research.

In brief this chapter presents an overall review of studies conducted in abroad as well as in India in a chronological order regarding the topic user satisfaction. Investigator reviewed only those studies which were similar to the present study or indirectly related to the present study.

OBJECTIVES OF THE REVIEW

The review of the related literature allows the researcher to acquaint himself with current knowledge in the field or area in which he/she is going to conduct his/her research. It serves the following specific objectives:

1. To enable the researcher to define the limits of his field.
2. To avoid unfruitful and useless problem areas.
3. To avoid unintentional duplication of well established findings.
4. To give an understanding of the research methodology.
5. To know previous recommendations.
Bhusan, Ved (1972) conducted a study under the title “User survey of IIT (Delhi) Library” to ascertain the attitude of the users towards the library services and to improve the quality of library services. The questionnaire method was used to collect the data. In this study it was found that most of the respondents demanded that library should improve its services and reservation of the books should be made simple. Some users suggested that the most used books should not be issued for more than 7 days and reference service should be improved. The Loose sheets of papers were kept at the reference desk near the entrance of the library and every member entering the library was required to enter his name and status in different columns and put his signature against them. The result obtained by the data reveal that 15% of members visit the library daily and maximum use of library was made by the postgraduate students including research scholars. Faculty members used the library in low percentage. It was suggested by the investigator that to attract the faculty member’s library should start current awareness service and selective dissemination of information.

Sharma, Savitri (1973) made a study on “Users Survey Of Delhi Public Library Karol Bagh Branch” to assist the library staff in solving unusual problems of immediate importance, formulation of modified policy in book selection and acquisition, suggest means for improving library collection and to consider the factors that will help the library staff in improving its services. The questionnaire and interview method were used to ascertain opinion of the users. The result of the study shows that most of the users demanded that library should arrange the sitting facility, clock room, cooler, air-conditioned and more staff. Some users suggested that library should open more counters.

Settee, K. Umapathy (1974) conducted a study on characteristics and attitudes of Library Patrons. The questionnaire method was used for primary data collection. The important findings were that 32% of the patron belongs to 16-20 years age group, while 42% to 21-30 year age group. Young people appear to use the library to a greater extent than any other age group. The data shows that the library provided good services to young age group. Most of the users expressed that they are unable to see the librarian.

Sangameswaran and Chandran, (1979) conducted a study on computer based Information Services in Food Science and Technology. The objectives of the study were to know the number and category of users who required the computer
based information services. The questionnaire survey was conducted to collect the data on random basis. The important finding reveals that Users were facing problem in using computer in creating database and providing other services. Most of the respondent's mention two important parameters, i.e., cost and usefulness which could decide either to subscribe or not to the services.

Haravu and Nagaraja (1979) made the study under the title “The Use and Impact of Information Services in An Individual R & D Environment”. The objectives of the study were to find out the extent of use of different services and its impact on R & D tasks. The attitude of users in general to information products and services and the attitudes of experimental and theoretical groups in particular. The data was collected through questionnaire method. The important findings were. The result of the survey Shows that low percentage of users uses the SDI service regularly. A surprising result of the survey was that patents awareness service was regularly used only by the few respondents.

Pangannaya and Poornachandra (1982) made a study under the title “Study under Of The Use Of Library Catalogue At The Maysore University Library”. The primary objectives of this study were to ascertain. The frequency of use of library catalogue and the degree of dependence of library catalogue in information search. The information about the habits and needs of the catalogue users were collected by administering questionnaire to the onsite users near the catalogue cabinet. Observation of actual use standing in the vicinity of the catalogue. Informal interviews with the users as they leave the place after consulting the catalogue. The important findings reveal that faculty members and the research scholars use the catalogue more frequently than the students. The reason for infrequent use by the student is that they were not very familiar with the tool and its use rather they prefer to go to stacks without consulting it. Users are not familiar with the scheme of classification or the way the books are organised in the shelves. They suggested is that the library should continuously be given proper guidance to readers to use the catalogue frequently and usefully.

Ramanna, and Sangameswaram (1985) made a study entitled “Users evaluation of NICFOS’s services” to obtain fresh feedback toward the existing services and for possible initiation of new services. The questionnaire method was the tool to conduct the study. The study reveals that most of the users were satisfied with
the services provided by the library. Some users expressed that cumulative bibliographies on specific topics should be updated periodically.

Biswa, and others (1986) conducted a survey under the title “Central Library: Users and the Pattern of Use: A Survey”. The objectives of this study were to identifying the library users by broader occupational categories and membership status. Assessing the frequency and purpose of library visits, use of collection by location within the library and broader subject areas of interest. The major part of the data for this survey had been collected through questionnaire method and from the library records. The important findings were the photocopying services were generally utilized by research scholars and the location of library SCL was in the backyard of the Shastri Bhawan (G wing) users demanded that it should be located in the “A” wing of the Shastri Bhawan and facing the main road.

Bavakutty, M. (1988) conducted a study under the title “Use of Libraries by the Teachers”. The objectives of the study were to examine the utilisation of college library resources and facilities by teachers with regard to the frequency of library visits, the purpose of library use, the duration of the time spend in the libraries and the borrowing of the subject as well as general books. Questionnaire method was used to conduct the above study. The important findings were that the teachers were not fully utilizing the existing library resources and facilities. While frequency of library visits and degree of its use by teachers were somewhat satisfactory, the duration of the time spend by them in the college libraries and the number of subject borrowed by them leave much to be divided. The teacher used the college libraries mainly for curricular and instructional purpose.

Dixit, Ram Prakash (1988) made a study under the title “Users Survey of National Medical Library: An Overview”. The objectives of the study were to find the use of library, evaluation of library collection, organisation of materials, circulation services and reference service. A questionnaire method was used to conduct the survey. The major findings were that periodical section of this library used closed access system. Users were not satisfied with the system. Users wanted that Index to Indian Medical Periodicals should be brought out in more updated fashion. Users felt that the classification and catalogues system of the library should be done in timely manner. Charges of the photocopying services were high. Users demanded to open the library on Sunday also to open a canteen in NML building itself.
Tameem (1992) provides a model which can be used to measure user satisfaction of library services and also provides the instrument which could be used to evaluate any government library in Saudi Arabia in the form of a questionnaire. The questionnaire covers 14 areas of library activities. Some recommendations and considerations were suggested towards the improvement of government library services in Saudi Arabia.

Mallaih and Badami (1993) conducted a study under the title “Library and information services facilitates in Mangalore University Library from the researchers point of view: A survey”. The primary objective of the study was to investigate the existing library and information service facilities in the Mangalore University Library. The objectives of the study were to find out the types of information sources required by the research scholars, ascertain the opinion of the users regarding the adequacy of information resources and services available in the library, identify the problem faced by the users in using the library, help the administrator of the library in preparing an enrichment program for better use of the library. Questionnaire method was used to collect the information. The findings of an overview are half percentages of the respondents are facing problems in locating the documents/information in the library and most of the respondents approaching the documents through the author in the author catalogue. In the library collection, the study identified that books, encyclopaedias, dictionaries, newspapers and magazines sufficient to meet the academic and research needs and that periodicals and report literature were not adequate enough to meet their academic and research needs. Majority of the respondents had complained about the non availability of current journals on time to meet their requirements in the library. The majority of the respondents were found to be aware of the services such as reference service and circulation services offered by the university library. Quite a good number of respondents had suggested that the other kind of services such as CAS, interlibrary loan, reprographic services etc. were not satisfactory.

Dalai and Ramesh (1994) conducted a study under the title “User studies-A tool for evaluation of a special library”. The objectives of the study were to know the extent of library use, needs and requirements of various categories of users, peak hours of highest usage, period of transactions of various service points etc. The data used for this study had been collected through questionnaire, borrower card, circulation register, observations and visitors register for outsiders and internal staff.
Findings of an overview are overall collection to all types of literature was not adequate. Users demanded that new acquisition policy should be made to improve the collection. SDI services and CAS etc. should be further strengthened. Literature searches using on line and CD-ROM database should be provided. Library lacks current journals.

Singh (1994)\textsuperscript{14} conducted a study under the title “Evaluation of Collection and Services Provided by IIT Libraries: User Point of View”. The objectives of the study were to find out the types of documentary sources required by the users specially P.G. students, research scholars and faculty members, to identify the information needs of the users, to ascertain users opinion with regard to usefulness and adequacy of information sources, to access the awareness as well as usefulness of library services in carrying out teaching, learning and research programmes, to know the problems faced by the users in using the library, to suggest the solution to the library authorities to overcome the problems. Questionnaire and interview methods were used for the study. The findings reveal that majority of users in order of priority visit the library to update their professional knowledge, consulting the documents for research use for borrowing/returning the documents. Library catalogue has been found to be most useful by most of the users. Organisation of documents collection has also been found to be useful by majority of the respondents. Users are satisfied with circulation service except that research scholars have emphasized on the overnight issue of bound volumes of periodicals. Users are satisfied with reference service as well as with the attitude of reference staff as majority of users have expressed about provision of help to search documents, use reference source and use of bibliographical sources etc. Photocopying service provided by the library been found very popular by users.

Raina, Roshan (1995)\textsuperscript{15} conducted a study under the title “Analysis of the student feed back on the library resources, facilities, services at a National Level Management Institute: A case study”. The objective of this study was to know the attitude of the users towards the services provided by the Indian Institute of management library lucknow. The data used for this study had been collected through questionnaire. The findings reveals that the most of the users find the collection of the library is adequate. The reference collection of the library is satisfactory, but some user demanded some improvement. The behaviour of library staff is also good.
Martinez and Filiberto (1996) conducted a study under the title “User attitude and behaviour before and after the implementation of an on-line catalogue”. The main objective of this study was to identify changes in user attitude and behaviour while dealing with a newly implemented on-line catalogue. Questionnaire methods was used to conduct the study. The important findings were that after introducing on-line catalogue the number of library user increased rapidly. An increase in successful searching was also noticed.

Devi (1997) conducted a study on attitude of end-users towards on-line information retrieval at NSDRC Library Vishakhapatnam. The objectives of the study were to know the attitude/behaviour of the end-users of the Technical Information Cell (TIC) of National Ship Design Research Institute (NSDRC) towards the on-line information search and retrieval. Questionnaire method was used to collect data. The important findings were that the majority of the end-users preferred to search the information through on-line than that of manual method due to the reasons of immediate and global accessibility of information. Further the survey revealed that the users had not experienced any difficulty with the on-line method. Most of the respondents opined that bibliographic database were most convenient source to access information. Most of the end-users agreed that the experience with the time made them expert in getting access to information through on-line.

Jain and Upadhyay (1998) made a study under the title user satisfaction of internet service in Banaras Hindu University Library. Internet is very essential and useful tool to fulfil the information needs of users of university libraries in India. The paper describes users’ views, satisfaction and their expectations and suggestions to improve the internet service in BHU library by adopting questionnaire method.

Clougherty and Forys (2000) assessment of the user needs of undergraduate university of IOWA libraries. The university community is not a static environment but, rather, one fraught with change and adjustment to change. One method that has received increasing attention is the development and implementation of internal instruments specifically designed to assess user satisfaction resource and services needs, identifies library wide unmet need and gives both library user and librarian an opportunity to engage in proactive dialogue.

Mahawar (2001) conducted a study on library services vis-à-vis satisfaction among student of Tagore Library at University of Lucknow. This covers the satisfaction level of P.G. level students in University of Lucknow Library with the
services provided by the library. The study is about frequency of library visit, satisfaction with opening hours of the library, library collection, and user satisfaction from library services. This study also covers the use of reference sources in the library. Some suggestions relating the satisfaction level of users are also provided on the basis of study.

Cullen (2001) explores the relationship between service quality and user satisfaction and examined how user surveys has been employed in a number of previously published data sets. A model which demonstrates how satisfaction can be seen as both a micro level response to individual transactions and at the macro-level as an outcome of service quality is proposed. Using an evidence-based approach, gaps between user expectations and perceptions are explored as well as the gap between user expectations and managers' perceptions of these. Studies that include user surveys of electronic library services are also analyzed in terms of customer expectations. Suggestions are offered about ways in which library and information service providers could make more use of the information derived from their own and other organizations' user surveys to improve their services. According to him Quality service is a competitive necessity for businesses and service organizations. Assessing service quality is the first step in retaining customers in today's competitive environment. Libraries need to re-examine the range and quality of services they provide and develop systems for consultation and cooperation with their user. They need to ensure that their services both meet customer needs and customer expectations to the highest degree. i.e., That is, they need to compete both in terms of service quality and customer satisfaction. Although, Satisfaction may involve long-term, as well as short-term perceptions, and a personal reaction to service built up over a number of transactions of varying quality. In addition, it would seem that, in the complex interplay of customer expectations and perception across the services delivered by an organization, customer satisfaction at the micro level concerning an individual service will contribute to the dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy) and that a global or macro view of quality of service derived from all the services with which the customer has interacted, and integrating the five dimensions of service quality: will contribute to their overall satisfaction with the organization.

Mundt (2003) studied on benchmarking user satisfaction in academic libraries. Customer satisfaction and service quality have so far been element has been
firmly established in academic library management for at least a decade. Critics of inter-institutional comparisons often object that different preconditions are not considered adequately. Examples from a joint user satisfaction survey conducted by 15 German university libraries in 2001 suggest that comparative data are a suitable means to identify cases of "best practices" and can effectively initialize processes of customer-focused improvement. Furthermore, if compared with corresponding statistical data or performance measures, satisfaction ratings can reveal possible structural strengths and deficits relative to other libraries. On the other hand, follow-up telephone interviews with participating libraries showed that the survey results substantially challenged the institutions, internal communication and public relations organisation and underlined that even in a well-developed culture of assessment the need for professional mediation and coordination of comparative analysis may not be underestimated. According to him all efforts were put into satisfying library customers are based on the insight that services are not primarily chosen for their objective properties but first of all for their perceived fitness for purpose in the customers' eyes.

Henry and others (2005) conducted study on Visual Image User Study at Penn States Visual Image. An extensive needs assessment project at Penn state university describes academic users of pictures and their perceptions. These findings outline the potential market for digital images and list the likely determinates of whether or not a system will be used. They also explain some key user requirements for teaching, independent learning and collection management. The importance of picture collections maintained by individuals is underscored as is the desire of users to easily mix pictures from their collections with those from databases and other sources. Two prototypical services were tested: an image database service and a more experimental peer-to-peer system named Lion Share.

Sugianto and Tojib (2006) in Modeling User Satisfaction With an Employee Portal the User satisfaction with general information system (IS) and certain types of information technology (IT) applications has been thoroughly studied in IS research. With the widespread and increasing use of portal technology, there is a need to conduct a user satisfaction study on portal use -- in particular, the business-to-employee (b2e) portal. In this paper, the authors conceptual model for determining b2e portal user satisfaction, which has been derived from an extensive literature review of user satisfaction scales and the b2e portal. Nine dimensions of b2e portal
user satisfaction are identified and modeled: information content, ease of use, convenience of access, timeliness, efficiency, security, confidentiality, communication, and layout.

Kwon (2006) studied on user satisfaction with referrals at a collaborative virtual reference service. This study investigated unmonitored referrals in a nationwide, collaborative chat reference service. Specifically, it examined the extent to which questions are referred, the types of questions that are more likely to be referred than others, and the level of user satisfaction with the referrals in the collaborative chat reference service. The data analysed for this study were 420 chat reference transaction transcripts along with corresponding online survey questionnaires submitted by the service users. Both sets of data were collected from an electronic archive of a south eastern state public library system that has participated in 24/7 Reference of the Metropolitan Cooperative Library System (MCLS). Referrals in the collaborative chat reference service comprised approximately 30% of the total transactions. Circulation-related questions were the most often referred among all question types, possibly because of the inability of ‘outside’ librarians to access patron accounts. Most importantly, user satisfaction with referrals was found to be significantly lower than that of completed answers.

Sahu (2007) studied service quality in an academic Library. The research was carried out among the students and faculty members of the JNU. A questionnaire was used as the data gathering instrument. The instruments for data collection consisted of structured questions. All the closed ended questions were designed to elicit responses on a five point Likert scale to measure both respondent satisfaction and perception of service quality. Analysis of the collected data made use of the chi-square method. The results would appear to indicate that the JNU library is not lacking in quality of service. However, we need to note that quality information service is about helping users to define and satisfy their information needs, building their confidence in using information retrieval systems, and making the whole activity of working with library staff a pleasurable experience. To achieve total quality in information service the JNU library should provide a comprehensive information programme that is predicated on the needs and activities of the users. This study may help those libraries, who are seriously interested to develop user satisfaction and provide better service to the user. This study also suggests some recommendations about increasing the user satisfaction in the library service.
Bamigboye (2007) evaluated the library services delivery in Olabisi Onabanjo University at Ago-Iwoye, Nigeria. The purpose of the study was to evaluate the users' satisfactions of library services in Olabisi Onabanjo University, Ago-Iwoye, Nigeria. A total of 400 questionnaires were administered to respondents, of which 387 (96.75 percent) were returned and used for this study. The results of the study indicated that the users' demands of library service represent a wide range of aspects, including the availability of conventional books and periodicals, a good reference function, and access to internet facilities, which are considered an important library function by many of the respondents.

Liu and Allmang (2008) examined the user satisfaction at the National Institute of Standards and Technology (NIST) research library. The methodology, survey instrument, data analysis, results, and actions taken in response to the survey are described. They concluded that as a tool for planning and to understand library’s customers’ base, the surveys are absolutely invaluable and well worth the time spent.

Yip Ping and Edzan (2008) made a study under a title Evaluate the users level of satisfaction with the Chinese Studies Collection held at an Academic Library. A user assessment study was conducted to evaluate the users’ level of satisfaction with the Chinese studies collection at the University of Malaya Library. The respondents were library professionals, faculty members, undergraduates and postgraduate students at the department of Chinese studies, university of Malaya. A total of 135 responses were received with a response rate of 77.5%. The results indicated that the undergraduates were less satisfied with the collection and services compared with the undergraduates of year 1, faculty members and library professionals. The study provides a useful overview of UK academic library user survey.

Koovakki (2008) studied on “Measuring user satisfaction in academic libraries” emphasises that satisfying the users is the prime concern of every modern library. Hence it is mandatory on the part of the libraries to measure the satisfaction of the users in order to provide better services. To measure the user satisfaction, standardised and appropriate tools are necessary. The author is reporting the user satisfaction scale developed by him for measuring the user satisfaction of academic libraries. The scale can be adapted and used for measuring user satisfaction in other types of libraries as well.
Norliya (2009) evaluated the library’s performance by measuring the users’ satisfaction with a part of a quantitative study. The study aims at: (a) library services, (b) infrastructure/place/space, and (c) collection/information provided by an academic library in Malaysia. A self-developed questionnaire was used to gauge the respondents' opinions on their satisfaction level on the statements regarding the three dimensions. The instrument was distributed to a sample of 650 final year students from three faculties of the university. Descriptive and inferential statistics were used in the analysis of data using the Statistical Product and Service Solutions. A parametric test using the one-way analysis of variance (ANOVA) was used to compare the mean satisfaction scores among the respondents from the three faculties. The results of the study revealed that on the average, the respondents were only quite satisfied with the library services, infrastructure/place/space, collection/information of the library as a whole. The respondents were relatively most satisfied with infrastructure/place/space (M= 3.41), followed by collection/information (M= 3.27), and library services to users (M= 3.18) in that order. The results also showed significant differences on the satisfaction on services, infrastructure/place/space, and libraries’ collection/information among the respondents of the three faculties.

Elaine and Irina (2010) studied on user satisfaction with electronic reference. The study aims to systematically review research that analyzes satisfaction with electronic reference services, paying particular attention to how user satisfaction is measured. The application and value of evidence-based methodologies for library and information science (LIS) research are explored. Database searches identified research concerned with electronic reference. Articles with a variable of user satisfaction were extracted and subjected to a critical appraisal. The research was analyzed for similarities, differences, and consistency. A wide variety of methods are used to measure user satisfaction. There was almost no overlap in specific questions considered although there were some similarities in methodologies used. The results of this analysis show a lack of standardization in LIS research on this topic. By synthesizing the research conducted on this topic, practicing librarians should be able to see patterns in user satisfaction with electronic reference, and become aware of common pitfalls in undertaking user satisfaction assessment. Those conducting or planning LIS research will be able to identify the characteristics of sound research and thorough reporting of results. Systematic review is an underutilized methodology in LIS research. As evidence-based librarianship gains traction, it will become a more
important tool for LIS researchers. The synthesis and analysis of previous research bring together disparate findings and show patterns and/or differences in providing these services, and brings into focus the lack of consistency in LIS research on this topic.

**Hyung (2010)
d** made the study on student user satisfaction with web-based information system in Korean universities. Despite of the rapid adoption of computer-based information systems in higher education in Korea and their increased importance both in education/research activities and administration, there have been few studies on whether these campus-wide information system (CWIS) are being effectively used from the student user's point of view. The study tests a modified model developed for this study based on previous literatures to measure student user satisfaction of the information systems. It was found that information and system satisfaction significantly affected the overall user satisfaction with CWIS.

**Al-Maskari and Sanderson (2010)** the main aim of an information system is to satisfy the need of its users. Lancaster (1979, 1981) suggests that an information system can be evaluated according to three criteria's: i) the suitability of a system in terms of the specific information retrieval task for which it will be used, ii) the system task performance efficiency and iii) the extent to which the system satisfies the information needs of its users. Therefore user satisfaction is an important factor in evaluating information systems. User satisfaction in information system is generally considered a criteria of system success and effectiveness. While Gatian (1994) et al found that user satisfaction was significantly associate with system effectiveness. Thus, it can be said that user satisfaction and system effectiveness goes hand in hand.

**Andaleeb and Simmonds (1998)** stated that those libraries that are able to provide users with whatever they want will achieve higher levels of user satisfaction. Thus, the availability of resources can have a significant influence on user satisfaction. It is important to note, however, that the quality of the resources may be judged from an overall perception as to whether the library can provide access to materials when and where needed. It is this overall perception of a library’s resources that contributes to user satisfaction. Thus the authors propose that: a) the higher the perceived quality of the library’s resources, the greater the level of user satisfaction, b) the greater the responsiveness of the library staff, the greater the level of satisfaction among academic library users, c) the greater the perceived competence of the library staff, the greater the level of user satisfaction, d) the more positive the
demeanour of the library staff, the greater the level of user satisfaction, e) the better the perceived overall physical appearance of the library facilities, the greater the level of user satisfaction.

Stamatoplos and Mackoy (1998)\textsuperscript{36} stated that consideration of satisfaction should be an important part of the evaluation of library services. Satisfaction depends to some extent, on patron expectations of services. Satisfaction appeared to be related to student perceptions of information accessibility, staff competence and helpfulness, computer usefulness and ease of use, and skill level for using libraries. Thus, libraries may be well served by measuring patron satisfaction and learning what variables drive satisfaction at particular libraries. Satisfaction is a reaction to a patron’s subjective assessment of the degree to which the organization’s performance met or exceeded some standard internalized by the patron.

Steve Hiller (2001)\textsuperscript{37} stated that library user surveys have become widespread in academic libraries during the past twenty years. Surveys have often been used as a tool to assess service quality and user satisfaction. Libraries develop and implement a study to identify user populations, their information needs and how well they are being met.

However, Miller, Lynette (2004)\textsuperscript{38} states that User satisfaction is a complex concept. It may simply be how good users feel after dealing with a library, it may include their likelihood to return to that library when next they need information. It may also include their perception of how well the experience answered their information problem, improved their productivity or the quality of their own output. User satisfaction may be affected by previous encounters with a library, current information use environment, the characteristics of the information product or service, or their current information gap. The characteristics of the products and services that may affect satisfaction are the level of customization, the subject matter, up to datedness, complexity, reliability, organization, language, and format.

Chavez and others (2005)\textsuperscript{39} conducted a user survey of PVCC Library students, faculty and staff to measure satisfaction with the library’s collections, facilities, equipment, and the quality of service at the Circulation/Reserves Desk. The survey, which is part of the library’s assessment plan, was developed by a library intern from University of Arizona and PVCC library staff. Over a 3 week period, the survey was distributed in the library, in classrooms, and online through a link on the library’s web page. 273 participants responded to the 9 item survey with representation
primarily from students. They found that that generally users of the Paradise Valley Community College Library were satisfied with the resources, facilities and circulation service and recommended to repeat survey in two years to compare satisfaction level of students.

Koovakki and Jaleja (2005) studied the satisfaction of the Carrier Seekers in the Resources and Services of Libraries in Kerala ascertained the level of satisfaction of career seekers in the resources and services of university, college and public libraries. Survey revealed that users using university libraries were most satisfied and using public libraries were least satisfied. A difference was also observed between the level of satisfaction of male and female users.

To ascertain the level of effectiveness of F.S. Idabacha Library, Uganneya and Idachaba (2005) conducted a survey of the students and teachers under name “Information System Effectiveness: A User’s Satisfaction Approach Study of Francis Sulemanu (F. S.) Idachaba Library, University of Agriculture, Makurdi, Benue State, Nigeria”. Circulation and Information Technology services were deficient. Frequency of use of library was low, which indicates that library did not meet information needs of users properly. Respondents suggested the introduction of new journals and the Internet service to improve the library system.

Wang Ming and Shieh-Chich-jen (2006) conducted a survey to reveal users’ perspectives on service quality. The results indicate that the overall service quality has a significantly positive effect on overall user satisfaction. The top five important service quality features ranked by users’ are: collection, loaning and returning services, overall atmosphere, electronic database system and online reservation and renewal. Su (2003) and Law et al. (2006) both concluded that users satisfaction is directly influenced by the amount of time required to find the information sought: the less time spent in searching, the greater the satisfaction.

Daisy (2006) stated the user community is the most important component of a library. Every information service exists for the sole aim of satisfying its users. How well this purpose is served is a measure of the effectiveness of that information service. To provide an efficient service, any library should identify the specific community which needs its services as different users need not only different services, but also services at different levels. This identification is essential for the systematic development of the collection and the planning of suitable services for the effective utilization of the collection.
Griffiths and Hartley (2007) surveyed the information retrieval and information system in an attempt to understand what constitutes user satisfaction and the factors that affect it. They found that user satisfaction is a measure that has been considered immensely in user-oriented system evaluation within both information retrieval and information system. According to their survey, they found that user satisfaction is influenced by factors including system output, user expectation and attitude, perceived ease of use and usefulness, system type and task difficulty.

While according to Maditinos and Theodoridis (2010) the customer satisfaction literature confirms that the most direct determinant of satisfaction is expectation, followed by perceived performance. The value percept theory views satisfaction as an emotional response triggered by a cognitive evaluative process. Satisfaction is a person’s feelings of contentment or disappointment resulting from the comparison of a product’s perceived performance in relation to his expectations.

Elaine and Irina (2010) stated that User satisfaction is one method of evaluating the effectiveness of library services. Receiving data from the user’s point of view may provide insights for service providers and point to changes in the service to make it easier to use, more welcoming or otherwise enhance the user’s experience. Thus, user satisfaction can be a key variable in assessing and evaluating library services.

Ming-der Wu and Shih-chuan Chen (2011) investigates the graduate students’ usage of and attitudes towards e-books at National Taiwan University. A total of 20 graduate students from the fields of humanities, social sciences, science and technology, and medicine were interviewed. The results indicated that graduate students used e-books mainly for the purposes of study and research. Monographs were the type of e-book that students used most often, followed by textbooks and reference tools. While they appreciated the convenience of using e-books, students mentioned several limitations. They liked the keyword search function of e-books. Most of the time, graduate students browsed a few paragraphs or pages online and then printed out copies for further reading. They also borrowed the corresponding paper versions of the e-books from the library. Students preferred that university libraries supply both the electronic and paper versions. In certain aspects, students’ use behaviour was found to vary among disciplines. This study highlights multiple aspects of graduate students' use behaviour with respect to e-books. The findings could be used to enhance e-book collection development in university libraries.
Islam and Zabed Ahmed (2011) studied on perceptions of ease-of-use and their satisfaction with University Library's online public access catalogue of Dhaka University students. A survey questionnaire was developed and used to collect data on students' demographics, online catalogue use and their perceptions of ease-of-use and satisfaction with OPAC. In order to analyze the influence of students' demographic and individual characteristics on their perceptions and satisfaction, Mann-Whitney and Kruskal-Wallis tests were carried out. The results showed that students are overwhelmingly satisfied with the DUL OPAC. Although there are some differences in students' perceptions of and satisfaction with the university OPAC, a formal task-based usability testing and adopting a user-centered design can ensure the usability of the OPAC in the future. The paper suggested some heuristic guidelines for designing interfaces for online catalogues.

Maria (2011) conducted a study on measuring user satisfaction with a library system according to ISO/IEC TR 9126. The primary objectives of this paper were to find out how task effectiveness, completion, efficiency and task time affect the general user satisfaction with a specific software product, and which factors, mentioned above, have the biggest effect on user satisfaction. The secondary goal of this examination was to try out how the metrics of ISO/IEC TR 9126-4 standard can be applied for measuring quality in use of the software product in a real library environment. This study introduces the results of research which focused on the measurement of user satisfaction using ISO/IEC TR 9126-4. Data of the examination was gained from the logfiles of Web OPAC used at the University and National Library of University of Debrecen. Based on this data the study was seeking the relation between quality of task solution with the software product and user satisfaction. To carry out the examinations the University and National Library of University of Debrecen permitted access of its Web OPAC with four unique URL numbers. In this way it was possible to separate the logfiles of participants in the examination from those of other library users and analyse each separately. Measuring users' effectiveness, completion and efficiency was based on the relevant metrics of ISO/IEC TR 9126-4- Quality in use metrics standard. The study measured the satisfaction after using the software with the questionnaire. The study could not assess every potential user satisfaction influential factor, but focused on gaining data from log-files, and converted them into metrics according to the ISO/IEC TR 9126-4 standard. Of the examined factors, the effectiveness of task solution had the greatest
influence on user satisfaction: among the four detailed factors effectiveness- satisfaction variables, it possessed the highest calculated correlation coefficient value. Another important statement of this study was that during the satisfaction examinations it was necessary to be attentive to the satisfaction structure of well definable user groups, who used library information systems, and who showed special features. Measuring user's effectiveness, completion and efficiency was based on the relevant metrics of ISO/IEC TR 9126-4 - Quality in use metrics standard. Although there is much research calling for the importance of user satisfaction as criteria of information system evaluation (e.g. Gatian; 1994; Gluck, 1996)

Conclusion

The large number of studies over the past few decades, as reviewed in this report, shows that user information satisfaction remains an important topic in research studies despite somewhat contradictory results. User satisfaction has been recognized as an important measure of library performance. While user satisfaction is defined, in general, as the degree to which the library is able to meet the demands of the user, this concept has been measured and used in a variety of ways. This diversity indicates both the complexity of the construct and the lack of consensus among librarians concerning its measurement and use. Consequently, interpretation of the literature is open to question. User satisfaction is considered as a reliable criterion for determining library effectiveness. Therefore, in order to improve user satisfaction and their overall perception of library effectiveness, libraries should make concerted efforts to consider all possible factors associated with user satisfaction. The present study is an attempt in this direction to analyse, identify the problems of the users and suggest the ways and means to resolve them.
REFERENCES


Chapter-4
Research Methodology
CHAPTER 4
RESEARCH METHODOLOGY

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 tools 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 (ü) 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, investigator 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 CL,JNU, 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 MAL. 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>Positive</th>
<th>UD</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Negative</td>
<td>1</td>
<td>2</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 Rout (1982).

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.

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)

Male / Female
Science/ Social Science/ Humanities/ Other
Educational Qualification: Graduation / Post graduation/Higher
Place of Residence: Rural / Urban

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

Chapter-5
Data Analysis & Interpretation
CHPATER 5
DATA ANALYSIS AND INTERPRETATION

The purpose of this chapter is to analyze and interpret the data collection into meaningful research findings. It is done to analyze the research objectives of this research. The chapter is divided into four major sections. In survey immediately after the data collection the next job is the data analysis and interpretation of results. Analysis means categorizing, ordering, manipulation and summarizing of data to research problems.

The collected data has been organized and tabulated by using statistical method tables and percentage. The purpose of analysis is to shape data to intelligible and interpretable forms, that the relation of research problems can be studied and tested. The set of questionnaires were designed to collect the necessary data regarding the present study. It includes about 44 closed ended question referring to different aspect of libraries and user satisfaction level.

General Information

5.1. Year of Establishment

<table>
<thead>
<tr>
<th>Universities</th>
<th>AMU</th>
<th>JMI</th>
<th>JNU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year of Establishment</td>
<td>1960</td>
<td>1973</td>
<td>1969</td>
</tr>
</tbody>
</table>

Table 5.1.1 shows that the establishments of three respective central university libraries of India. AMU was established in 1960. The library of JMI and JNU were established in 1973 and 1969 receptively. It can be found that AMU is one of the oldest libraries out of three university libraries, establish in 1960.

5.1.2. Library Users Profile

<table>
<thead>
<tr>
<th>Users</th>
<th>AMU</th>
<th>JMI</th>
<th>JNU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty members</td>
<td>181</td>
<td>1476</td>
<td>476</td>
</tr>
<tr>
<td>Research Scholar</td>
<td>12068</td>
<td>1131</td>
<td>2782</td>
</tr>
<tr>
<td>Students (PG+UG)</td>
<td>7198</td>
<td>3992</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>379</td>
<td>------</td>
<td>2423</td>
</tr>
<tr>
<td>Total</td>
<td>12628</td>
<td>9805</td>
<td>9673</td>
</tr>
</tbody>
</table>

Table 5.1.2 indicates the users statistics of three central university libraries of India. AMU have highest users, i.e., 12628, JMI (9,805) and JNU (9,673).
5.1.3. Staff Profile

<table>
<thead>
<tr>
<th>Designation</th>
<th>AMU</th>
<th>JMI</th>
<th>JNU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarian/Director</td>
<td></td>
<td>Lib. Inch</td>
<td>1</td>
</tr>
<tr>
<td>Deputy Librarian</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Assistant Librarian</td>
<td>18</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Professional Assistant</td>
<td>16</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>Semi Professional Assistant</td>
<td>38</td>
<td>9</td>
<td>29</td>
</tr>
<tr>
<td>Lib. Info. Assistant</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Information Scientists / Officer</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Programmer</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Library Attendant</td>
<td>19</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Clerical Staff</td>
<td>4</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>Peon</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Binder</td>
<td>12</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>122</td>
<td>51</td>
<td>135</td>
</tr>
</tbody>
</table>

Table 5.1.3 presents the staff profile of respective university library in tabular form. AMU has post vacant of university librarian. JMI and JNU have a librarian. JNU has the largest number of Deputy Librarians, i.e., 3, followed by AMU, i.e., 2, followed by JMI, i.e., 1.

The strength of Assistant librarian is maximum in AMU, i.e., 18, followed by JNU, i.e., 13, followed by JMI, i.e., 6. Table further clarifies that the strength of total staff in the central university libraries is maximum in JNU, i.e., 135, followed by AMU, i.e., 122, followed by JMI, i.e., 51.

5.1.4. Library Collections

<table>
<thead>
<tr>
<th>Universities</th>
<th>AMU</th>
<th>JMI</th>
<th>JNU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>11,86,139</td>
<td>3,44</td>
<td>5,50,595</td>
</tr>
<tr>
<td>Collections</td>
<td>Lakhs</td>
<td>Lakhs</td>
<td>Lakhs</td>
</tr>
</tbody>
</table>

Table 5.1.4 shows the total collections of three central university libraries. Analysis of the above table reveals that the total collection of books form material viz. books and periodicals, thesis, manuscripts etc. Library collection in MA Library of
AMU has highest, i.e., (11,86,139), followed by JNU (5,50,595), whereas JMI has 3.44 lacks total collections.

5.1.5 Library Automation

<table>
<thead>
<tr>
<th>Universities</th>
<th>AMU</th>
<th>JMI</th>
<th>JNU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lib. Software</td>
<td>Libsys</td>
<td>Libsys</td>
<td>Vertua VTLS</td>
</tr>
<tr>
<td>Acquisition</td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
</tr>
<tr>
<td>Cataloguing</td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
</tr>
<tr>
<td>Circulation</td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
</tr>
<tr>
<td>Serial Control</td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
</tr>
<tr>
<td>Library Statistics</td>
<td>Partial</td>
<td>Complete</td>
<td>Complete</td>
</tr>
<tr>
<td>CAS</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
<tr>
<td>SDI</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
</tbody>
</table>

The data collected regarding the automation of three Central University Libraries has been shown in table 5.1.5. The analysis shows that AMU, JMI are using LibSys software for the automation, whereas JNU is using VTLS for the automation.

Analysis of the table shows that the all libraries are automated. They have almost the same automated operational infrastructure facilities in their library like OPAC, Internet etc, and also automated in house operations. Computerization of CAS and SDI services is nor completed in any libraries but they are providing these service through computer partially.
5.1.6. Library Services:

<table>
<thead>
<tr>
<th>Library Services</th>
<th>AMU</th>
<th>JMI</th>
<th>JNU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation services</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Reservation of documents</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Reprographic services</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CAS</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>SDI</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OPAC</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Internet services</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Microform services</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bibliographies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Abstracting services</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Indexing services</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Reference service</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Translation services</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Referral services</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Search literature (computerized)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>E - journal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Inter Library Loan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Any others services</td>
<td>Blind support service</td>
<td>News paper clipping services</td>
<td></td>
</tr>
</tbody>
</table>

Table No 5.1.6 shows that the library services provided by the three central university libraries. All most all services provide by the library but AMU Library provides special service like blind support services. JNU library provide newspaper-clipping service for the researchers.

5.1.7. Overall Satisfaction with the Library Policy

<table>
<thead>
<tr>
<th>Universities</th>
<th>AMU</th>
<th>JMI</th>
<th>JNU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>85.5%</td>
<td>72%</td>
<td>92%</td>
</tr>
</tbody>
</table>

Table 5.1.7 depicts that the responses of the users of three university libraries regarding the overall satisfaction of library services, policies and procedures. Majority of the respondents of JNU library expressed their satisfaction with services, policies and procedures, i.e., 92%, followed by AMU, i.e., 85.5%, followed by JMI, i.e., 72%.
ANALYSIS OF USER SATISFACTION SCORES

5.6. Documentation Acquisition Services

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI Mean</th>
<th>JMI SD</th>
<th>JMI SEM</th>
<th>JNU Mean</th>
<th>JNU SD</th>
<th>JNU SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>160.0</td>
<td>101.86</td>
<td>33.95</td>
<td>156.44</td>
<td>106.26</td>
<td>35.42</td>
<td>0.97</td>
<td>0.414</td>
</tr>
<tr>
<td>UD</td>
<td>56.67</td>
<td>22.86</td>
<td>7.62</td>
<td>60.0</td>
<td>25.27</td>
<td>8.42</td>
<td>0.84</td>
<td>0.743</td>
</tr>
<tr>
<td>D</td>
<td>55.67</td>
<td>50.69</td>
<td>16.89</td>
<td>54.67</td>
<td>48.92</td>
<td>16.30</td>
<td>0.97</td>
<td>0.258</td>
</tr>
</tbody>
</table>

Table 5.6.1 Satisfaction between JMI and JNU

A: Agree   UD: Undecided   D: Disagree

Table 5.6.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawaharlal Lal Nehru University (JNU) with regard to the Document Acquisition Service. It shows that the degree of correlation among all the three groups i.e., agree, undecided and disagree between the two universities is quite high and the difference among these groups are non significant.

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI Mean</th>
<th>JMI SD</th>
<th>JMI SEM</th>
<th>AMU Mean</th>
<th>AMU SD</th>
<th>AMU SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>160.0</td>
<td>101.86</td>
<td>33.95</td>
<td>158.67</td>
<td>98.76</td>
<td>32.92</td>
<td>0.98</td>
<td>0.242</td>
</tr>
<tr>
<td>UD</td>
<td>56.67</td>
<td>22.86</td>
<td>7.62</td>
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<td>14.21</td>
<td>4.73</td>
<td>0.47</td>
<td>2.064</td>
</tr>
<tr>
<td>D</td>
<td>55.67</td>
<td>50.69</td>
<td>16.89</td>
<td>69.33</td>
<td>75.29</td>
<td>25.09</td>
<td>0.95</td>
<td>1.309</td>
</tr>
</tbody>
</table>

A: Agree   UD: Undecided   D: Disagree

Table 5.6.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia University (JMI) and Aligarh Muslim University (AMU) with regard to the Document Acquisition Service. It shows that the high degree of correlation among the two groups i.e., agree and disagree between the two universities, whereas the group ‘undecided’ has low correlation. The difference among all these groups are non significant.
Table 5.6.3 shows the satisfaction of the users of central libraries of Jawahar Lal Nehru University (JNU) and Aligarh Muslim University (AMU) with regard to the Document Acquisition Service. It shows that the degree of correlation among the two groups, i.e., agree and disagree between the two universities is quite high, whereas the group ‘undecided’ has low correlation. The difference among these groups are non significant.

Table 5.6.3. Satisfaction between JNU and AMU

<table>
<thead>
<tr>
<th>Response</th>
<th>JNU</th>
<th></th>
<th>AMU</th>
<th></th>
<th>Correlation</th>
<th>T- Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
</tr>
<tr>
<td>A</td>
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<td>106.26</td>
<td>35.42</td>
<td>158.67</td>
<td>98.76</td>
<td>32.92</td>
</tr>
<tr>
<td>UD</td>
<td>60.0</td>
<td>25.27</td>
<td>8.42</td>
<td>42.67</td>
<td>14.21</td>
<td>4.73</td>
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<tr>
<td>D</td>
<td>54.67</td>
<td>48.92</td>
<td>16.30</td>
<td>69.33</td>
<td>75.29</td>
<td>25.09</td>
</tr>
</tbody>
</table>

A: Agree      UD: Undecided      D: Disagree

Fig. 1 Comparison of Document Acquisition Services
5.7  Document Processing and House Keeping Service

Table – 5.7.1  Satisfaction between JMI and JNU

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI</th>
<th>JNU</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td>Mean</td>
</tr>
<tr>
<td>A</td>
<td>167.0</td>
<td>105.31</td>
<td>30.40</td>
<td>152.0</td>
</tr>
<tr>
<td>UD</td>
<td>48.50</td>
<td>25.25</td>
<td>7.29</td>
<td>54.0</td>
</tr>
<tr>
<td>D</td>
<td>55.75</td>
<td>55.33</td>
<td>15.97</td>
<td>61.50</td>
</tr>
</tbody>
</table>

A: Agree  
UD: Undecided  
D: Disagree

Table 5.7.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawahar Lal Nehru University (JNU) with regard to the Document Processing and House Keeping Service. It shows that the degree of correlation among all the three groups, i.e., agree, undecided and disagree between the two university is quite high and the difference among these groups are non significant.

Table – 5.7.2  Satisfaction between JMI and AMU

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI</th>
<th>AMU</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td>Mean</td>
</tr>
<tr>
<td>A</td>
<td>167.0</td>
<td>105.31</td>
<td>30.40</td>
<td>159.25</td>
</tr>
<tr>
<td>UD</td>
<td>48.50</td>
<td>25.25</td>
<td>7.29</td>
<td>42.50</td>
</tr>
<tr>
<td>D</td>
<td>55.75</td>
<td>55.33</td>
<td>15.97</td>
<td>77.50</td>
</tr>
</tbody>
</table>

A: Agree  
UD: Undecided  
D: Disagree

Table 5.7.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Document Processing and House Keeping Service. It shows that the degree of correlation among the two groups, i.e., agree and disagree between the two university is quite high, whereas the group ‘undecided’ has low correlation. The difference among these groups are non significant.
Table 5.7.3 Satisfaction between JNU and AMU

<table>
<thead>
<tr>
<th></th>
<th>JNU</th>
<th></th>
<th></th>
<th>AMU</th>
<th></th>
<th></th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>152.0</td>
<td>96.69</td>
<td>27.91</td>
<td>159.25</td>
<td>110.73</td>
<td>31.96</td>
<td>0.83</td>
<td>0.408</td>
</tr>
<tr>
<td>UD</td>
<td>54.0</td>
<td>18.09</td>
<td>5.22</td>
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</tr>
<tr>
<td>D</td>
<td>61.50</td>
<td>59.14</td>
<td>17.07</td>
<td>77.50</td>
<td>83.36</td>
<td>24.06</td>
<td>0.98</td>
<td>1.98</td>
</tr>
</tbody>
</table>

A: Agree    UD: Undecided    D: Disagree

Table 5.7.3 shows the satisfaction of the users of central libraries of Jawaharlal University and Aligarh Muslim University (AMU) with regard to the Document Processing and House Keeping Service. It shows that the degree of correlation among the two groups, i.e., agree and disagree between the two universities is quite high, whereas the group “undecided” has negative correlation. However, the difference among all these groups are non significant.

Fig. 2. Comparison of Documentation Processing and House Keeping Service
5.8 Document Delivery Service (Loan Service)

Table 5.8.1 Satisfaction between JMI and JNU

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI Mean</th>
<th>JMI SD</th>
<th>JMI SEM</th>
<th>JNU Mean</th>
<th>JNU SD</th>
<th>JNU SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>61.80</td>
<td>19.28</td>
<td>8.62</td>
<td>54.0</td>
<td>29.85</td>
<td>13.34</td>
<td>0.21</td>
<td>0.54</td>
</tr>
<tr>
<td>UD</td>
<td>37.60</td>
<td>11.52</td>
<td>5.15</td>
<td>38.40</td>
<td>16.75</td>
<td>7.49</td>
<td>0.83</td>
<td>0.185</td>
</tr>
<tr>
<td>D</td>
<td>120.0</td>
<td>60.30</td>
<td>28.75</td>
<td>121.20</td>
<td>106.96</td>
<td>47.83</td>
<td>0.56</td>
<td>0.030</td>
</tr>
</tbody>
</table>

A: Agree  UD: Undecided  D: Disagree

Table 5.8.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawaharlal Lal Nehru University (JNU) with regard to the Document Delivery Service. It shows a low level of correlation among the groups, i.e., agree, whereas the group ‘disagree’ and ‘undecided’ shows significant correlation between the two universities. The difference among these groups are quite non significant.

Table 5.8.2. Satisfaction between JMI and AMU

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI Mean</th>
<th>JMI SD</th>
<th>JMI SEM</th>
<th>AMU Mean</th>
<th>AMU SD</th>
<th>AMU SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>61.80</td>
<td>19.28</td>
<td>8.62</td>
<td>84.0</td>
<td>46.52</td>
<td>20.80</td>
<td>0.76</td>
<td>1.45</td>
</tr>
<tr>
<td>UD</td>
<td>37.60</td>
<td>11.52</td>
<td>5.15</td>
<td>21.60</td>
<td>15.06</td>
<td>6.73</td>
<td>0.66</td>
<td>3.162</td>
</tr>
<tr>
<td>D</td>
<td>120.0</td>
<td>64.30</td>
<td>28.75</td>
<td>117.60</td>
<td>75.75</td>
<td>33.88</td>
<td>0.87</td>
<td>0.145</td>
</tr>
</tbody>
</table>

A: Agree  UD: Undecided  D: Disagree

Table 5.8.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Document Delivery Service. It shows that the degree of correlation among all the three groups, i.e., agree, undecided and disagree between the two university is quite high. The difference among the two groups, i.e., agree and disagree are non significant, whereas the difference is quite significant in the group ‘undecided’.
Table 5.8.3 Shows the satisfaction of the users of central libraries of Jawaharlal University and Aligarh Muslim University (AMU) with regard to the Document Delivery Service. It shows that there exist a negative correlation among the group ‘agree’, whereas the other two groups, i.e., ‘undecided’ and ‘disagree’ has high and low correlation respectively. The difference among the two groups, i.e., agree and disagree are non significant, whereas the difference is quite significant in the group ‘undecided’.

5.9 Reading Facility

Table 5.9.1 Satisfaction between JMI and JNU

A: Agree  UD: Undecided  D: Disagree
Table 5.9.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawahar Lal Nehru University (JNU) with regard to the Reading Facility. It shows quite a high degree of correlation and significant amount of difference between the two group, i.e., agree and disagree, whereas the group ‘undecided’ has low level of correlation and the difference is quite non significant.

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI</th>
<th>AMU</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td>Mean</td>
</tr>
<tr>
<td>A</td>
<td>107.57</td>
<td>102.40</td>
<td>38.70</td>
<td>111.43</td>
</tr>
<tr>
<td>UD</td>
<td>38.57</td>
<td>15.43</td>
<td>5.83</td>
<td>44.57</td>
</tr>
<tr>
<td>D</td>
<td>114.86</td>
<td>70.13</td>
<td>26.50</td>
<td>114.86</td>
</tr>
</tbody>
</table>

Table - 5.9.2. Satisfaction between JMI and AMU

A: Agree    UD: Undecided    D: Disagree

Table 5.9.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Reading Facility. It shows that the degree of correlation among all the three groups, i.e., agree, undecided, and disagree between the two university is quite high and the difference among these groups are non significant.

<table>
<thead>
<tr>
<th>Response</th>
<th>JNU</th>
<th>AMU</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td>Mean</td>
</tr>
<tr>
<td>A</td>
<td>94.29</td>
<td>101.93</td>
<td>38.52</td>
<td>111.43</td>
</tr>
<tr>
<td>UD</td>
<td>32.57</td>
<td>12.89</td>
<td>4.87</td>
<td>44.57</td>
</tr>
<tr>
<td>D</td>
<td>154.29</td>
<td>93.416</td>
<td>35.30</td>
<td>114.86</td>
</tr>
</tbody>
</table>

A: Agree    UD: Undecided    D: Disagree

Table 5.9.3 shows the satisfaction of the users of central libraries of Jawaharlal Nehru University and Aligarh Muslim University (AMU) with regard to the Reading Facility. It shows that the degree of correlation among all the three groups, i.e., agree, undecided, and disagree between the two university is quite high and the difference among these groups are non significant.
Table 5.10.1. Satisfaction between JMI and JNU

<table>
<thead>
<tr>
<th>Response</th>
<th>JMI Mean</th>
<th>JMI SD</th>
<th>JMI SEM</th>
<th>JNU Mean</th>
<th>JNU SD</th>
<th>JNU SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5.5</td>
<td>166.5</td>
<td>6.36</td>
<td>4.5</td>
<td>1.0</td>
<td>55.0</td>
</tr>
<tr>
<td>UD</td>
<td>50.5</td>
<td>4.95</td>
<td>3.5</td>
<td>60.0</td>
<td>81.48</td>
<td>6.0</td>
<td>1.0</td>
<td>3.8</td>
</tr>
<tr>
<td>D</td>
<td>23.5</td>
<td>0.70</td>
<td>0.50</td>
<td>34.5</td>
<td>2.12</td>
<td>1.50</td>
<td>1.0</td>
<td>11.0</td>
</tr>
</tbody>
</table>

5.10. Reference and Documentation Service

A: Agree  UD: Undecided  D: Disagree

Table 5.10.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawaharlal Nehru University (JNU) with regard to the Reference and Documentation Service. It shows the high degree of correlation among all the three groups, i.e., agree, undecided, and disagree between the two universities. The difference among all these groups are highly significant.

Table 5.10.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the
Reference and Documentation Service. It shows that the two groups, i.e., agree and undecided have negative correlation between the two universities and the difference is quite significant in the group ‘undecided’, whereas non significant in the other two.

Table 5.10.3 shows the satisfaction of the users of central libraries of Jawahar Lal University and Aligarh Muslim University (AMU) with regard to the Reference and Documentation Service. It shows that the two groups, i.e., agree and undecided have negative correlation between the two Universities and the difference is quite significant in the group ‘undecided’, whereas it is non significant in the other two.

Table 5.10.3 shows the satisfaction of the users of central libraries of Jawahar Lal University and Aligarh Muslim University (AMU) with regard to the Reference and Documentation Service. It shows that the two groups, i.e., agree and undecided have negative correlation between the two Universities and the difference is quite significant in the group ‘undecided’, whereas it is non significant in the other two.

<table>
<thead>
<tr>
<th>Response</th>
<th>JNU Mean</th>
<th>SD</th>
<th>SEM</th>
<th>AMU Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
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<td>6.36</td>
<td>4.5</td>
<td>238.5</td>
<td>31.82</td>
<td>22.5</td>
<td>-1.0</td>
<td>2.6</td>
</tr>
<tr>
<td>UD</td>
<td>60.0</td>
<td>81.48</td>
<td>6.0</td>
<td>27.0</td>
<td>4.24</td>
<td>3.0</td>
<td>-1.0</td>
<td>3.66</td>
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<tr>
<td>D</td>
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<td>6.0</td>
<td>1.0</td>
<td>1.6</td>
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</tbody>
</table>

Table 5.10.3 shows the satisfaction of the users of central libraries of Jawaharlal University and Aligarh Muslim University (AMU) with regard to the Reference and Documentation Service. It shows that the two groups, i.e., agree and undecided have negative correlation between the two Universities and the difference is quite significant in the group ‘undecided’, whereas it is non significant in the other two.
### 5.11. Personal Attention Paid by the Library Staff

Table 5.11.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawaharlal Nehru University (JNU) with regard to the Personal Attention Paid by the Library Staff. It shows that the degree of correlation is positive and high in the group 'agree', whereas the other two groups, i.e., undecided and disagree are negatively correlated. The difference among all the three groups is quite non significant.

<table>
<thead>
<tr>
<th>Response</th>
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<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
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<td>90.53</td>
<td>30.17</td>
<td>0.96</td>
<td>1.1</td>
</tr>
<tr>
<td>UD</td>
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<td>33.73</td>
<td>11.24</td>
<td>56.67</td>
<td>19.46</td>
<td>6.48</td>
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<td>0.28</td>
</tr>
<tr>
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<td>66.09</td>
<td>22.03</td>
<td>71.67</td>
<td>73.99</td>
<td>24.66</td>
<td>-0.88</td>
<td>0.70</td>
</tr>
</tbody>
</table>

**Table 5.11.1. Satisfaction between JMI and JNU**

A: Agree  UD: Undecided  D: Disagree

### 5.11.2. Satisfaction between JMI and AMU

Table 5.11.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Personal Attention Paid by the Library Staff. It shows that the positive correlation among the two groups, i.e., agree and disagree between the two universities, whereas their exist a negative correlation in the group ‘undecided’. The difference among these groups are quite non significant.

<table>
<thead>
<tr>
<th>Response</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
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<td>87.34</td>
<td>29.11</td>
<td>144.67</td>
<td>97.47</td>
<td>32.49</td>
<td>0.96</td>
<td>0.32</td>
</tr>
<tr>
<td>UD</td>
<td>60.67</td>
<td>33.73</td>
<td>11.24</td>
<td>38.67</td>
<td>15.33</td>
<td>5.11</td>
<td>-0.23</td>
<td>1.64</td>
</tr>
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<td>22.03</td>
<td>73.33</td>
<td>82.0</td>
<td>27.33</td>
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</tr>
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</table>

**Table 5.11.2. Satisfaction between JMI and AMU**

A: Agree  UD: Undecided  D: Disagree

Table 5.11.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Personal Attention Paid by the Library Staff. It shows that the positive correlation among the two groups, i.e., agree and disagree between the two universities, whereas their exist a negative correlation in the group ‘undecided’. The difference among these groups are quite non significant.
Table 5.11.3 shows the satisfaction of the users of central libraries of Jawaharlal Nehru University and Aligarh Muslim University (AMU) with regard to the Personal Attention Paid by the Library Staff. It shows the high degree of positive correlation among all the groups, i.e., agree, undecided, and disagree between the two universities. The difference among the group ‘undecided’ is quite significant, whereas it is non-significant in the other two groups.

Table 5.11.3

<table>
<thead>
<tr>
<th>Response</th>
<th>JNU</th>
<th>AMU</th>
<th>Correlation</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>SEM</td>
<td>Mean</td>
</tr>
<tr>
<td>A</td>
<td>133.33</td>
<td>90.53</td>
<td>30.17</td>
<td>144.67</td>
</tr>
<tr>
<td>UD</td>
<td>56.67</td>
<td>19.46</td>
<td>6.48</td>
<td>38.67</td>
</tr>
<tr>
<td>D</td>
<td>71.67</td>
<td>73.99</td>
<td>24.66</td>
<td>73.33</td>
</tr>
</tbody>
</table>

A: Agree  UD: Undecided  D: Disagree

Fig. 6. Comparison of Personal Attention Paid by the Library Staff
Chapter-6
Findings, Tenability of Hypotheses, Conclusion & Suggestions
CHAPTER 6

FINDINGS, TENABILITY OF HYPOTHESES, CONCLUSION AND SUGGESTIONS

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”. The problem deals with 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 generalises certain issues which need to be taken care of for the satisfaction of users. On the basis of data analyses and interpretation, certain findings and conclusion are drawn and recommendations have been made for providing quality bases services in the libraries under study. The major findings/observations emerged during the study have been given as follows.

FINDINGS

The first part deals with the general information of all three university libraries, i.e., quantitative statistics of libraries, such as size of collections, status of library automations, facilities and services, staff and budget, etc. The major findings are as follows:

1. All three university libraries have good collections of all kinds of documents in book and non-book forms but comparatively the MA Library of AMU has large collection than the others libraries. It is clear from the table 5.1.4 that the total collection of MA Library of AMU consisting of books, periodicals, CD-ROMs, theses and manuscripts etc. is (11,86,139), followed by JNU library(5,50,595), followed by JMI, which is the lowest.

2. Table 5.1.5 reveals that AMU and JMI libraries are using LibSys software for the automation, whereas JNU is using VTLS software for the automation.

3. Table 5.1.6 depicts AMU libraries provide special services like Blind Support Services and Central library of JNU provide Newspaper-Clipping service for the researchers.
4. Table 5.1.2 shows the users profile of AMU, JMI and JNU. It shows that MAL, AMU has maximum users, i.e., 12628, followed by JMI, i.e., 9806, followed by JNU, i.e., 9673.

5. Table 5.1.2 shows that the establishments of three respective university libraries of India. AMU library was established in 1960. The library of JMI and JNU were established in 1973 and 1969 respectively. It was found that AMU is one of the oldest libraries out of three university libraries, established in 1960.

The second part deals with the comparison of users satisfaction scores of three universities of India. The investigator analyses the responses collected from the respondents on the user satisfaction scale under 6 aspects/dimensions of user satisfaction as suggested by Rout (1982). The major findings are given below:

1. Table 5.6.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawahar Lal Nehru University (JNU) with regard to the Document Acquisition Service. It shows that the degree of correlation among all the three groups, i.e., agree, undecided and disagree between the two university is quite high and the difference among these groups are non significant.

2. Table 5.6.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Document Acquisition Service. It shows that the high degree of correlation among the two groups, i.e., agree and disagree between the two universities, whereas the group ‘undecided’ has low correlation. The difference among all these groups are non significant.

3. Table 5.6.3 shows the satisfaction of the users of central libraries of Jawahar Lal Nehru University (JNU) and Aligarh Muslim University (AMU) with regard to the Document Acquisition Service. It shows that the degree of correlation among the two groups, i.e., agree and disagree between the two universities is quite high, whereas the group ‘undecided’ has low correlation. The difference among these groups are non significant.

4. Table 5.7.1. shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawahar Lal Nehru University (JNU) with regard to the Document Processing and House Keeping Service. It shows that the degree
of correlation among all the three groups, i.e., agree, undecided and disagree between the two university is quite high and the difference among these groups are non significant.

5. Table 5.7.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Document Processing and House Keeping Service. It shows that the degree of correlation among the two groups, i.e., agree and disagree between the two university is quite high, whereas the group ‘undecided’ has low correlation. The difference among these groups are non significant.

6. Table 5.7.3 shows the satisfaction of the users of central libraries of Jawaharlal Nehru University (JNU) and Aligarh Muslim University (AMU) with regard to the Document Processing and House Keeping Service. It shows that the degree of correlation among the two groups, i.e., agree and disagree between the two university is quite high, whereas the group “undecided” has negative correlation. However, the difference among all these groups are non significant.

7. Table 5.8.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawaharlal Nehru University (JNU) with regard to the Document Delivery Service. It shows a low level of correlation among the groups, i.e., agree, whereas the group ‘disagree’ and ‘undecided’ shows significant correlation between the two universities. The difference among these groups are quite non significant.

8. Table 5.8.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Document Delivery Service. It shows that the degree of correlation among all the three groups, i.e., agree, undecided and disagree between the two university is quite high. The difference among the two groups, i.e., agree and disagree are non significant, whereas the difference is quite significant in the group ‘undecided’.

9. Table 5.8.3 shows the satisfaction of the users of central libraries of Jawaharlal Nehru university and Aligarh Muslim University (AMU) with regard to the Document Delivery Service. It shows that there exist a negative correlation among the group ‘agree’, whereas the other two groups, i.e., ‘undecided’ and ‘disagree’ has high and low correlation respectively. The difference among
the two groups, i.e., agree and disagree are non significant, whereas the
difference is quite significant in the group 'undecided'.

10. Table 5.9.1 shows the satisfaction of the users of central libraries of Jamia
Millia Islamia (JMI) and Jawahar Lal Nehru University (JNU) with regard to
the Reading Facility. It shows quite a high degree of correlation and
significant amount of difference between the two group, i.e., agree and
disagree, whereas the group 'undecided' has low level of correlation and the
difference is quite non significant.

11. Table 5.9.2 shows the satisfaction of the users of central libraries of Jamia
Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to
the Reading Facility. It shows that the degree of correlation among all the
three groups, i.e., agree, undecided, and disagree between the two university
is quite high and the difference among these groups are non significant.

12. Table 3 shows the satisfaction of the users of central libraries of Jawahar Lal
university and Aligarh Muslim University (AMU) with regard to the Reading
Facility. It shows that the degree of correlation among all the three groups, i.e.,
agree, undecided, and disagree between the two university is quite high and
the difference among these groups are non significant.

13. Table 5.10.1 shows the satisfaction of the users of central libraries of Jamia
Millia Islamia (JMI) and Jawahar Lal Nehru University (JNU) with regard to
the Reference and Documentation Service. It shows the high degree of
correlation among all the three groups, i.e., agree, undecided, and disagree between the two university. The difference among all these groups are highly
significant.

14. Table 5.10.2 shows the satisfaction of the users of central libraries of Jamia
Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the
Reference and Documentation Service. It shows that the two groups, i.e.,
agree and undecided have negative correlation between the two universities
and the difference is quite significant in the group 'undecided', whereas
non significant in the other two.

15. Table 5.10.3 shows the satisfaction of the users of central libraries of Jawahar
Lal University and Aligarh Muslim University (AMU) with regard to the
Reference and Documentation Service. It shows that the two groups, i.e.,
agree and undecided have negative correlation between the two universities
and the difference is quite significant in the group ‘undecided’, whereas it is non significant in the other two.

16. Table 5.11.1 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Jawaharlal Nehru University (JNU) with regard to the Personal Attention Paid by the Library Staff. It shows that the degree of correlation is positive and high in the group ‘agree’, whereas the other two groups, i.e., undecided and disagree are negatively correlated. The difference among all the three groups is quite non significant.

17. Table 5.11.2 shows the satisfaction of the users of central libraries of Jamia Millia Islamia (JMI) and Aligarh Muslim University (AMU) with regard to the Personal Attention Paid by the Library Staff. It shows that the positive correlation among the two groups, i.e., agree and disagree between the two universities, whereas their exist a negative correlation in the group ‘undecided’. The difference among these groups are quite non significant.

18. Table 5.11.3 shows the satisfaction of the users of central libraries of Jawaharlal University and Aligarh Muslim University (AMU) with regard to the Personal Attention Paid by the Library Staff. It shows the high degree of positive correlation among all the groups, i.e., agree, undecided and disagree between the two universities. The difference among the group ‘undecided’ is quite significant, whereas it is non significant in the other two groups.
TENABILITY OF HYPOTHESES

HYPOTHESES-1

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

Table 5.1.7 depicts that the responses of the users of three university libraries regarding the overall satisfaction of library services, policies and procedures. Majority of the respondents of JNU library expressed their satisfaction with services, policies and procedures, i.e., 92%, followed by AMU, i.e., 85.5%, followed by JMI, i.e., 72%. Hence, this hypothesis is proved to be true.

HYPOTHESES-2

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

Table 5.6.1 shows that the degree of correlation among all the three groups, i.e., agree, undecided and disagree between JMI and JNU is quite high and the difference among these groups are non significant at 95% level of significance.

Table 5.6.2 shows that the high degree of correlation among the two groups, i.e., agree and disagree between JMI and AMU whereas the group ‘undecided’ has low correlation. The difference among all these groups are non significant at 95% level of significance.

Table 5.6.3 shows that the degree of correlation among the two groups, i.e., agree and disagree between JNU and AMU is quite high, whereas the group ‘undecided’ has low correlation. The difference among these groups are non significant at 95% level of significance.

Hence, this hypothesis is proved to be true.
HYPOTHESES-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.

Table 5.7.1 shows that the degree of correlation among all the three groups, i.e., agree, undecided and disagree between JMI and JNU is quite high and the difference among these groups are non significant at 95% level of significance.

Table 5.7.2 shows that the degree of correlation among the two groups ,i.e., agree and disagree between JMI and AMU is quite high, whereas the group ‘undecided’ has low correlation. The difference among these groups are non significant at 95% level of significance.

Table 5.7.3 shows that the degree of correlation among the two groups ,i.e., agree and disagree between JNU and AMU is quite high, whereas the group “undecided” has negative correlation. However, the difference among all these groups are non significant at 95% level of significance.

Hence, this hypothesis is proved to be true.

HYPOTHESES-4

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

Table 5.8.1 shows a low level of correlation among the groups, i.e., ‘agree’, whereas the group ‘disagree’ and ‘undecided’ shows significant correlation between JMI and JNU. The difference among these groups are quite non significant at 95% level of significance.

Table 5.8.2 shows that the degree of correlation among all the three groups ,i.e., agree, undecided and disagree between JMI and AMU is quite high. The difference among two groups, i.e., agree and disagree are non significant at 95% level of significance, whereas the difference is quite significant in the group ‘undecided’.

Table 5.8.3 shows that there exist a negative correlation among the group ‘agree’, whereas the other two groups, i.e., ‘undecided’ and ‘disagree’ has high and low correlation respectively between JNU and AMU. The difference among the two
groups, i.e., agree and disagree are non significant at 95% level of significance, whereas the difference is quite significant in the group 'undecided'.

Hence, this hypothesis is not true.

HYPOTHESES-4

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

Table 5.9.1 shows quite a high degree of correlation between JMI and JNU and significant amount of difference between the two group, i.e., agree and disagree, whereas the group 'undecided' has low level of correlation and the difference is quite non significant at 95% level of significance.

Table 5.9.2 shows that the degree of correlation among all the three groups, i.e., agree, undecided, and disagree between JMI and AMU is quite high and the difference among these groups are non significant at 95% level of significance.

Table 5.9.3 shows that the degree of correlation among all the three groups, i.e., agree, undecided, and disagree between JNU and AMU is quite high and the difference among these groups are non significant at 95% level of significance.

Hence, this hypothesis is proved to be true.

HYPOTHESES-5

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

Table 5.10.1 shows the high degree of correlation among all the three groups, i.e., agree, undecided and disagree between JMI and JNU. The difference among these groups are highly significant at 95% level of significance.

Table 5.10.2 shows that the two groups, i.e., agree and undecided have negative correlation between JMI and AMU and the difference is quite significant in the group 'undecided', whereas non significant in the other two at 95% level of significance.

Table 5.10.3 shows that the two groups, i.e., agree and undecided have negative correlation between JNU and AMU and the difference is quite significant
in the group ‘undecided’, whereas it is non significant in the other two at 95% level of significance.

Hence, this hypothesis is not true.

HYPOTHESES-6

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.

Table 5.11.1 shows that the degree of correlation is positive and high in the group ‘agree’, whereas the other two groups, i.e., undecided and disagree have negatively correlation between JMI and JNU. The difference among all the three groups is quite non significant at 95% level of significance.

Table 5.11.2 shows that the positive correlation among the two groups, i.e., agree and disagree between JMI and AMU, whereas their exist a negative correlation in the group ‘undecided’. The difference among these groups are quite non significant at 95% level of significance.

Table 5.11.3 shows the high degree of positive correlation among all the groups, i.e., agree undecided and disagree between JNU and AMU. The difference among the group ‘undecided’ is quite significant, whereas it is non significant at 95% level of significance in the other two groups.

Conclusion

The main objectives of the study were to examine the status of user satisfaction among the three university libraries of India. 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. The components of user satisfaction suggested by him are as follows:

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.

The total score of a user on his/her satisfaction of the library resources/services was 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. 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 above. The investigator used ‘t’test to test the significant difference in the satisfaction of user’s of JMI and JNU, JMI and AMU and JNU and AMU for all the 6 aspects of users satisfaction given by Rout(1982).

From the table of mean and correlation, it was concluded that the

i) Correlation between the satisfaction scores of JMI, JNU and AMU is quite high with regard to the Document Acquisition Service;

ii) Correlation between the satisfaction scores of JMI, JNU and AMU is quite high with regard to the Document Processing and House Keeping Service;

iii) Correlation between the satisfaction scores of JMI and JNU is quite low and there exist a negative correlation between JNU and AMU with regard to the Document Delivery Service;

iv) Correlation between the satisfaction scores of JMI, JNU and AMU is quite high with regard to the Reading Facility;

v) Although, correlation between the satisfaction scores of JMI, JNU and AMU is quite high with regard to the Reference and Documentation Service, but the difference between the groups among all the three universities are quite significant;

vi) Correlation between the satisfaction scores of JMI, JNU and AMU is quite high in the group ‘agree’ with regard to the Personal Attention Paid by the Library Staff, whereas there exist a negative correlation between other groups i.e., undecided and disagree.

Finally, the researcher concluded that User satisfaction is the major focus of the library services the library should scrutinize the use, quality, and effectiveness of their existing information sources and services whether they should be continued or be replaced by those sources and services which are better to keep pace with users.
changing desires and preferences. The level of information requirements of the users’
community in the university depends upon the nature of their academic activities.
Among the users, students, teachers and research scholars need information at the
levels of study, teaching and research respectively. Thus, academic libraries such as
the university library should be constantly searching for new ways to keep up with the
expectations of its academic community. It is the responsibility of the library
professionals to undertake user satisfaction survey from time to time.

University library must be as dynamic like the users they serve whether they are
faculty members, students, non-teaching staff or research scholars. In a rapidly
developing field such as sciences, social sciences, humanities, management or
information science, changes in user behavior and the impact of improvements need
to be re-assessed in regular intervals on a continuous basis. The answer to the
question "how can a library improve its collection and services to satisfy user
requirements?" is ever changing since user needs never remain static. However,
finding answers to this question will help not only university library but any library to
be more attentive to the objective of satisfying users and to execute changes
depending on the user needs.

Therefore, the findings of the present study can be considered as guiding principles
in developing need base collection and provide effective services to the research
scholars as well as other user’s community of the university.

SUGGESTIONS AND RECOMMENDATIONS

The familiarity with library sources and services of users is closely related to
user satisfaction. Users who are familiar with library services and its sources are more
likely to be satisfied. Therefore it is essential that libraries should find the ways to
familiarise users with the library services and its sources.

In the light of the findings based upon the responses of the questionnaires, the
following suggestions can be considered:-

- The library should acquire important as well as new editions of information
  source documents which are related to the subject interest of all research
  scholars.
The library should try to acquire more current periodicals, both national and international immediately since the research scholars use journals more.

The library should make the users aware of the availability of inter-library loan facilities, services regarding bibliography, Current Awareness Service (CAS) and Selective Dissemination of Service (SDI).

Majority of the respondents indicated that the user orientation program is useful. Therefore, the library should conduct the programmes with prior notification so that the research scholars may attend it. And hence, enabling them to exploit the resources of the library fully and effectively.

Many of the respondents are dissatisfied with the library opening hours, complex circulation procedure and photocopying facilities available in the library. Thus, opening hours of the library, photocopying facility and circulation facility should be made convenient and sufficient according to users’ needs.

Besides the above given suggestions which the library can take in to consideration, there are certain suggestions which the users can consider in order to satisfy their needs such as, the users should contact the library staff whenever they feel difficulty in getting information they should inform about their requirements to the librarian and also they should refer all sources of information which more useful and available in the library itself.
Bibliography
BIBLIOGRAPHY


