

QUALITY SERVICE MANAGEMENT IN CENTRAL UNIVERSITY LIBRARIES

OF UTTAR PRADESH: A STUDY

A thesis

Submitted in partially fulfillment of the requirement for the

Award of the degree of

DOCTOR OF PHILOSOPHY

IN LIBRARY AND INFORMATION SCIENCES

By

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Punjab

2022

CANDIDATES' DECLARATION

I, Nazia Salauddin, Hereby declare that the thesis entitled “QUALITY SERVICE MANAGEMENT IN CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY”, submitted to Lovely Professional University, Phagwara Punjab, in partial fulfillment of the requirement for the awards of the degree of philosophy in Library and Information sciences is original work carried out by me under the supervision of Dr. Jatinder Kumar. No part of the thesis has been formed the basis for the award of any degree or diploma at any other university or institute.

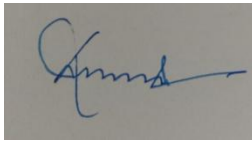


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CERTIFICATE

It is certified that the thesis entitled "**QUALITY SERVICES MANAGEMENT IN CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY**" presented by Nazia Salauddin in compliance with the requirements for obtaining the title of Doctor of Philosophy in Library and Information Sciences is a authentic record of the candidate's original and independent research work carried out by him under my supervision and guidance. The material contained in this thesis has not been submitted in part or in its entirety to any other university or institute to grant any degree.



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Abstract

The topic of the research is “quality service management in central university libraries of Uttar Pradesh: A study. The survey was carried out about the quality service and resources provided by the central university libraries of Uttar Pradesh India. The study has been covered users' standardization and quality management of higher education libraries in the Indian state of Uttar Pradesh. The researcher evaluated the different aspect of library services like, visit frequency, infrastructure, resources and services with the discipline of the domain. In this research study confined how users are visit the library and use the resources and services and there seeking pattern. The classification questions have been made by the services and resources with the usage of Libqual+™ tool. The online and offline accessibility of library services has been in many different segments. The ICT phenomenon has become changed the mindset of the users, now the users want the services at their fingertips. The central university has a wide collection with a variety of resources; they have good ICT devices, and excellent services to remark the system. The awareness of library resources and services was the big question for librarianship profession. The library itself made the path to spread the information and knowledge paradigm. The libraries made the orientation program with online assets, so that the users may attract more toward the system. The library system is integrated with the library staff, resources, services, and users, so that dimension of the LibQual tool has defined the library from the staff. The university library system role is highly related to the NAAC Grade. Ultimately the excellent library system made the path of successfully NAAC journey. The research finding stated that, The BBAU library has a very less number of staff and a high number of users using the library system with this regards the library staff did a tremendous job, & data also revealed that the users were satisfied with the services and resources. The result revealed that The AMU and BHU libraries have a good number of staff followed by the AU Library, Prayagraj. It is observed that all university libraries have a good collection and e-resources service which includes different research tools like Grammarly Turnitin, some of statistical tools, and standardized database system. The measuring dimension includes the LibQual +™ tool. Library as a place,

information control, Library staff, and Library Contribution. The researcher has also emphasized the expectations and perception of the library service and resources. This study has mainly focused on the library users of AMU, Aligarh, BHU Varanasi, BBAU, Lucknow, and AU, Prayagraj, under this study user views were taken from the different academic category such as undergraduate and postgraduate students, research scholars and faculty members. The result also revealed that all the university libraries have a standard budget for upgrade their services and subscribe to the resources. All these four university libraries maintain their institutional repository with internal as well as external resources. The university library opens and the end time was longer as user expectations but the AMU library has open 24*7 hours. All the university libraries under this study have NAAC certified and highly graded by the ISO. The online tool used for data collection was a questionnaire from both online and offline. The respondent took highly part of the online as well as offline response. The analysis results revealed that the minimum service level was not a desired level. The user's frequency was very high with the usage of library resources like e-resources, archival sources; the static circulation of books was high in BHU Varanasi, followed by the AMU, Aligarh. The user's satisfaction level was extremely acceptable but their statements revealed that they need highly desired level service. The most interestingly part stated in finding that users were not aware of all the library resources and services. The research scholars have high used the library service from the top and bottom of the knowledge. The result revealed that users were extremely happy with the library infrastructure facilities. The resources provided by the university library were highly graded by the users; the statistical data also reveals that the usage of library internet/wifi facility was extremely high. The users have accessed the library from a remote login facility some of the libraries gave a strong bandwidth facility that could easily access the resources. The association of dimension library staff revealed that the significant SAG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of its users but, the results related to SSG indicate that the perceived service performance is quite close to the minimum service expected by the users. The association of dimension

information control revealed the significant SAG for all items and SSG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of their users, The association of dimensions Library as a Place revealed that The significant SAG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of its users. But the results related to SSG indicate that the perceived service performance is quite close to the minimum service expected by the users.

ACKNOWLEDGEMENT

***IN THE NAME OF GOD, THE MOST KIND AND MERCIFUL.
ALL PRAISE IS DUE TO GOD, THE LORD OF THE WORLD.***

First of all, I would like to place my eternal gratitude to God, the Almighty, the most benevolent, who gave me all the strength and guidance necessary for the timely completion of this thesis; without blessing, it could not be done.

I thank God for giving me inspiring parents, and motivational husband whose love, sacrifices, and sustained and endless efforts enabled me to gain knowledge, whatever I am today, because of their advancement, loving care, and sincere dedication to Endeavor's. I can't give you anything in return except a heart full of love, affection, and deep admiration.

I would like to express my deep gratitude and sincere thanks to my esteemed supervisor, Dr. Jatinder Singh, L.P.U. Department of Social Sciences, Phagwara Punjab. He provided me with his great support and continuous guidance, constant persuasion, constructive criticism and indispensable guidance, which helped me, understand the theoretical and practical work. I consider myself lucky to have had the opportunity to work under his supervision. I can't give you anything in return except a heart full of love, affection, and deep admiration.

I am very grateful for my great Dr. Rekha (RDC), from LPU, Jalandhar) and all the support from the university, Dr. Habibur Rahman, Deputy Librarian (MA Library AMU, Aligarh), Dr. Eqbal Munawwar, (MA Library Deputy Librarian AMU, Aligarh), Dr. Neeraj Shukla MAUF University, Lucknow. Dr. Umesh Prasad (I.T. College, Lucknow) and Md Sohail Nazarbayev University Kazakhstan for their immense moral support throughout my research.

I am also very grateful to all the library staff and other non-teaching staff at Allahabad University Library, Allahabad, Banaras Hindu University, Maharaja Sayaji Rao Gaekwad

Banaras Library, Maulana Azad Library Aligarh Muslim University, Aligarh University, Baba Saheb University Bhimrao Ambedkar Gautama Buddha Library, Lucknow.

During my study, I was unable to fulfill my fundamental responsibility towards my family members. I must express my sincere thanks and deep gratitude to my parents, my loving husband, and my sister. They always gave me a lot of love and affection, and encouragement to achieve this goal.

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LIST OF ABBREVIATIONS

AMU	Aligarh Muslim University
BHU	Banaras Hindu University
BBAU	Baba Saheb Bhim Rao Ambedkar University
AU	Allahabad University
OPAC	Online catalogue service
SAG	Service Adequacy Gap
SSG	Service Superiority Gap
EFA	Exploratory Factor Analysis
UGC	University Grant Commission
SERVQUAL	Service quality
TQM	Total quality management
ICT	Information and Communication Technology
ZoT	Zone of tolerance

CHAPTER-1

INTRODUCTION

1. Education

Education is the process of understanding and spreading culture, and it is a fundamental tool for social change. Education is regarded as a source of long-term prolonged situation and protection for society and people in general. Higher education institutions have become progressively concerned about preserving high-quality education over the last two decades. Simultaneously, the enormous funds that the government committed to the educational sector make it necessary for those pursuing education to allow that the education delivered in colleges, educational institutes, and universities is of high quality and adheres to established standards.(Eqbal et al., 2011)

1.2 University System

"Central universities in India were established by an Act of Parliament and under the broader category of the Ministry of Education's Department of Higher Education. The UGC has had a significant role in establishing central or state universities. The UGC and legitimacy of professional councils have established to control and review various aspects of recognition, accreditation, and coordination among them."(UGC, 2020)

Universities based in India are essential to the survival of a vibrant society and its rich democratic tradition. Many Indian universities are doing an excellent job of increased enlightened people who will benefit the country. Indian universities and other higher education institutes have faced new challenges due to demand-driven academic needs in the excessive higher education system. They are adapting and transforming the latest designs.

The university system establishes a knowledge spectrum for educational innovation development and skills creation. The university system's objectives are to make students

self entrepreneurs & promote research activities. The universities must collaborate with other institutions so that the research and development activities can make the path of success in the nation. **(Eqbal et al., 2011)**

1.2.1 Central University System

The University is a higher educational establishment with a growing research spectrum that generates knowledge and transforms learners into global citizens. The word university comes from the Latin word Universitas magistrorum et scholarium that means "teacher and scholar collective." The university also provides a competitive edge in the career goal to pursue a career that interests. Some prominent universities gain central universities' status by the act and state regulation and government of India. These universities have many facilities to enrich, and varieties of courses are available. Universities offer all undergraduate, postgraduate, and doctorate education. It has a primary objective for establishing central universities to educate people and promote research activity for the nation's development. The University Grant Commission is the agency to provide financial assistance for these universities' maintenance and growth. The Indian government is solely responsible for planning and allocating financial resources to establish central universities in India. **(“UGC Act-1956,” 2020-04-12.)**

1.2.2 Library system at University

The university library systems have been considered the “heart” of the academic system that is crucial to progress research and makes priorities and strategies for the proper perspective. The library is the gateways of a spectrum of knowledge and growing culture, which play a key fundamental role in the academic learning society. The library is identified as the core of a university that spreads the oxygen of life through the veins of an entire university structure and enhances knowledge processes to its academics. The university infrastructure will have to undertake stringent obligations throughout the educational sector's glorification for national goals. The central university libraries mainly interact with students, research scholars, and the academic fraternity. **(Young, 1983)**

A university's primary goals are to transmit advanced knowledge to students of various fields and provide the appropriate infrastructure for conducting academic practices in specific knowledge areas. In any university, libraries must enhance their entire people's expertise and provide the scholar with new scientific-technical information. **(Eqbal et al., 2011).**

1.2.3 Library

Previously, libraries were simply a storehouse of books, with the Librarian serving as a caretaker. The current emphasis on information technology has significantly altered today's library environment. With the development of digital information and knowledge society, libraries change their role from a document provided to the information provider.

An academic institution cannot be imagined without a library. It is one of the significant concern resource centers there; libraries support and enhance learning, teaching, and research in educational institutions. Libraries are the center of all educational activities in the university. It is considered an organ of vital significance around which all academic activities revolve. They are treated as an essential and integral part of the university to accomplish its objectives. "S Radhakrishnan, Chairman, University Education Commission 1948, rightly observed that Library is the heart of all university's work, directly so regarding its research work and indirectly as regards its educational work which derives its life from research work". Scientific research, a library, and laboratories are needed, and humanistic research in the interest of national development. **(Debnath, 2019)**

2. Quality

Quality is a continuous process and a set of inherent properties of an object that satisfies stated or implied needs consistency of management compared to other similar things or the degree of excellence doing something. The supplier does not assess the product quality or service. It is basically what the customer gets in exchange for the money they are willing to spend. As a result, quality could be described as excellence in users'

resources and services. Similarly, users get to experience the most significant benefit and satisfaction. **(Drucker, 1995)** Quality can also be defined as the total of all its features and attributes that influence how well it can fulfill particular requirements. In addition to being an excellent level or grade, quality can be thought of as an innate or distinguishing characteristic. The goal of quality management is to improve an organization's performance for the benefit of its users. This includes enhancing resources, services, systems, and procedures as well as ensuring that the entire organization is healthy and functional. Managing quality requires maintaining a consistent emphasis on excellence in order to guarantee that the institution or organization meets its objectives and not only maintains this state but also continues to improve. **(Aksu Dunya & De Groote, 2019)**

A quality process is essential in every organization to achieve efficiency with the performance metrics process. "The Fourth Law of Library Science, SAVE THE TIME OF THE READER, has given the clear indication that readers' time is significantly important to deliver the services on time. Ranganathan's Five Laws of Library Science. (Ranganathan's, 1988 287), imply the value of library services quality".**(Ranganathan et al., 1940)**

2.1 Definition of Quality

The term "quality" defines much segregation from different people. As a result, determining "quality" is often the first step in an "improvement" strategy. A clear understanding and depth perception of what "quality" entails would aid the organization in concentrating its "quality improvement" efforts. As a result, not only is it necessary to define "efficiency" from a conceptual viewpoint, but it is also essential to facilitate customers' resources toward widespread services." **(Abby Ghobadian, Simon Speller, 1994)**

2.2 Quality Management

Quality management promotes a company's resources and services consistency. Quality development, quality assurance, quality preparation, and quality management are the four

main components of quality management assets. The quality of resources and services and the processes used to achieve them are at the heart of quality management. ("**Quality Management - Wikipedia," 2021-04-05.**)

Quality management can be applied to any organization to improve the service and resources. The application of quality management is meant to accomplish tasks so that the importance of quality excellence is constantly confirmed and strengthened. (**Eqbal et al., 2011**)

2.2.1 Quality Service Management

Quality Service management ensures the service quality parameters in any organization and institution. The quality service management started from the acquire division and must be broadly introduced to the distribution division. The management of quality services has based on user reviews and experiences. Service quality management results from customers' comparisons between their positive expectations of service and their implications in terms of perceptions of how services are provided or performed. (**Parasuraman et al., 1994**)

The quality of the service is dynamic in nature, and it is subject to change in response to the phenomena involving the needs of the users. Service is a process, not a thing, and the best service assets are based on users' needs. It is also explains how the concept of "perceived quality of service" has evolved in this context. Since the quality of the service is composed of several components, each of which must be attached to another subsection, we cannot conclude that the service is an independent entity. Several authors have proposed numerous distinct definitions of service quality. Quality of service is perceived to exist on the part of users. It's observable and quantitative. Quality gurus, experts, and researchers who specialize in various domains, such as the quality of services given by resources and services, have provided a variety of definitions of high-quality service. (**Gronroos, 2001**)

2.3 Quality Concept in Library Services

The most important focus of a library is to offer services such as reference, circulation, information delivery, and another service to its users. It refers to a wide range of services integration processes. It included the acquisition and delivery of information. Consistency should be maintained from the requisition to the procurement portion during the service delivery process. The user has taken many experiences; they can be good or bad. The processing of good and bad services will make the library image. A user will always lead the mark of excellent expression. Therefore librarians must understand the user's requirement and delivery of what, how, and when they want. The importance of quality service depends on user fulfillment and satisfaction in maintaining existing users and attracting new arrival ones is widely acknowledged. The entire process of evaluating an academic library's quality is proven in terms of its collection, but usage indicates the service process's quality. Over the last decade, new approaches to assessing library efficiency have arisen.

2.3.1 Quality Service and Library

Quality means improvement; technological advancement can influence and strengthen users' expectations of library services and information resources. University libraries' service efficiency must ensure quality service with users' parameters. University libraries must undergo dynamic changes as an important transmission channel for the dissemination of knowledge and information adapted to the demands and attitudes of users. The quality of service is a determining factor in the broad consensus of user satisfaction and loyalty across universities and their system. **(Ainasto, 2009)**

A library has to create the basic concept of delivery of quality services. The following factors affect the quality of information resources processed in the library **(Lieberman et al., 2017)**

1. Document collection and technical processing using a variety of techniques and methods
2. Employee skills
3. Acquisition and storage
4. The duration of the service to be provided
5. Service characteristics to be given

2.4. Library and technology

Technological advancement and development have changed different aspects and made our lives easy. Due to the exposition of information, a variety of resources and tools are available in different modes to satisfy the academic needs of society. The question has arisen: how can we cope and update with these technological clouds. The quality of learning always depends upon the information resources and services. The library without technology is like a roof without a wall. Technological development and ICT tools are essential for the library, making the library more accessible. (Sherikar et al., 2006).

2.5 Role of Quality Service Management in Library Framework

As mentioned earlier, the comprehensive literature review analysis revealed the quality service management in the university library system has been conducted from an Indian perspective. Quality Service Management in university libraries focuses on quality services and resources, as competition from adequate information sources reveals deficiencies in traditional library services.

A library ensures quality service, and resources must be circulated among the users. The university library's role becomes essential to provide quality service and sound resources, helped to promote research activity.

It is necessary to assess the needs and requirements and students' satisfaction regarding library services accessibility. The NAAC recommended that maximum user satisfaction be the main objective of the higher education institution. They believe that the library operation should be based on user satisfaction and librarian efficiencies because it will always reflect on both sides. Many tools are available to evaluate the user assessment and perception of the library services and resources. (Atkinson, 2016).

3. Selection of the Problem

Educational institutions and authorities are increasingly concerned with maintaining high-quality education standards. As a result, there has been a rapid increase in the requirement for high-quality service management and monitoring processes. Using diverse technological applications and information technology approaches, the university library delivers various information resources and facilities.

The problem selected for the present study is entitled "QUALITY SERVICE MANAGEMENT IN CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY." The problem concerns implementing the Quality Service Management process in central university library systems and measuring user perceptions of quality services.

4. Objectives of the study

The study's primary objective will integrate quality service management and evaluate the central university library service system. It will assess users' thinking perceptions of the quality of the library's facilities and services and how effective the library will be to provide accurate and effective services to its patrons. The present study has the following objectives.

1. "To know about the current quality service trend status in the Central University Libraries of the State of Uttar Pradesh."

2. "To explore the prevailing practices and procedures for the management of quality services in the Central University Libraries of the State of Uttar Pradesh."
3. "To compare the quality of services and available resources of various Central University Libraries in the State of Uttar Pradesh."
4. "To understand user perceptions towards University Library services."

5. Scope and limitations of the study

The research scope entitled "Quality Service Management in Central University Libraries of Uttar Pradesh: A Study" is limited to only central university's libraries of Uttar Pradesh. The studies are based on four select central university libraries' of the state of Uttar Pradesh, India, namely:

1. Maulana Azad Library, Aligarh Muslim University, Aligarh
2. Library of Maharaja Sayaji Rao Gaekwad, Hindu University of Banaras, Banaras
3. Central Library, Allahabad University, Allahabad
4. Gautam Buddha Central Library Babasaheb Bhimrao Ambedkar University, Lucknow

It is essential to state certain limitations that are unique to this study. Time, geographic location, library selection, and study area are the primary constraints. The decision regarding selecting four universities out of six central universities in Uttar Pradesh covered the population in UP. The other two universities are particularly subject-oriented. Another reason is that all these universities have the oldest popular and well-established library system recognized by the university grant commission and established by the govt of India. This restriction is important for developing valuable norms to complete the current analysis. The following are the limitations:

- It is compulsory to narrow down the geographical area of the study because selecting a much wider deep area tends to diffuse the result and findings in

research work; therefore, such a study will not be feasible if a much wider geographical area is taken into consideration.

- This study will target the library users, research scholars and faculty, staff members, university librarians, and their library's professional staff from those mentioned above four select Central University Library of Uttar Pradesh. The geographical study area is restricted to students and faculty members and the working staff of the selected four central universities of Uttar Pradesh. These select universities are situated at the four different poles of the state. Thus researcher assumed that would represent the standard sample for the study mentioned above.
- The duration of the study is connected to the limitation of time. In other words, gathering the response from select library users and professionals using questionnaires takes more time compared to data collection through web questionnaires.

6. Hypothesis

1. "All four central university libraries selected for this research apply and manage quality service management standards procedure."
2. "Quality service management implementation will vary among the select university library in Uttar Pradesh."
3. "There will be a significant association between users' satisfaction and dimensions of service quality."

7. Needs and Importance of the Study

The information communication era has tremendously changed the academic necessities towards higher education quality system. In the manufacturing and commercial sectors, the word "quality" has become a mantra and a sign of survival and development. It has also begun to make significant strides in academic development information services.

Several educational institutions and information centers have started competing with the university library system.

Similarly, the concept of the library has become changed due to ICT tools and techniques. The growth of technological development has changed user perception. They are demanding quality service and resources with ready reference mode. They want to save time to access them. As the Ranganathan's fourth Laws of Library Science, especially the Fourth Law, "SAVE THE TIME OF THE READER."(**Ranganathan et al., 1940**).

The quality service gets many benefits, not for the user only for staff and institutions /university ranking. The primary objectives of quality service management have to improve library conditions. Quality services will lead to teamwork among the staff in discussion, problem-solving, and quality control. If the library provides excellent quality services, users will be inspired to draw attention. They may become regular users, spreading the word to others to use the library's services and resources. Thus, quality parameter programs will improve library coherence and the image of the library or institution in the academic arena. (**Partap, 2019**)

8. Methodology of the study

The research design is a blueprint of the action. It involves a series of sections based on the study and topic. It is a plan and structure to answer the research problem questions. The sophisticated and intense research design gives the more significant outcome of the research. The survey research method will be used for this study. As a method of investigation, the survey research approach will be the questionnaire. Two types of structured questionnaires will be used to gather the data for this research. One set of questionnaires will be used for librarians and professional staff, and another set will be used for library users. The probability sampling technique will adopt for the data collection and analysis. After data collection, data treatment protocols will validate the data for further investigation before feeding for statistical analysis in SPSS statistical

tools. After data acquisition, the data will be transferred for statistical analysis to SPSS to accomplish the study. For the study, the user experience score will be determined for each object in different dimensions in the form of standard deviation and mean average.

8.1 Sample population: The entire university users, faculty, and staff members will be the sample population. The sample size will be based on the total population. The selection criteria will be used by online sample slovin's method:

$$\text{Formula: } n = \frac{N}{(1 + Ne^2)}$$

n= number of samples

N= Total population

e= error of margin

Name of the Universities	Total population	Sample size
“Aligarh Muslim University, Aligarh”	23729	379
“Banaras Hindu University, Banaras”	32161	380
“Allahabad University, Allahabad”	40330	381
“Baba Saheb Bhimrao Ambedkar University, Lucknow”	1864	319
Total samples	98084	1459

8.2 Sampling technique: "A simple random sample technique is a subset of individuals randomly selected by researchers to represent an entire group as a whole. The goal is to get a sample of people representing the larger population". The principle of simple

random sampling is that every object has the same probability of being chosen, and it is relatively more straightforward without any bias.

8.3 Tools used for the study: LibQual+TM

The standard questionnaire tool will use for data collection from library service providers and users groups. Libqual+TM tool will evaluate the quality of service parameters with add general and library usage pattern questions. LibQual+TM is a tool for measuring assessment about the library users' perceptions of service quality, and it recognized the “gaps” between the expectation of services like minimum, desired, and perceived.

The LibQual+TM survey was developed jointly by the “Association of Research Libraries and Texas A&M University Library” to measure library service quality and identify best practices.

“LibQual+TM is a way of listening to the user's perception. The LibQual+TM instrument was initially proposed in 2000 with 41 items categorized under five dimensions. Two dimensions were removed in the 2002-03 revision, and one new dimension, Personal control was added”. In the latest version of 2004, only three dimensions cover 22 items. The details of the tool sections have given below:

8.3.1: Questionnaire one for Librarian’s

It has divided into five sections, namely:

Part 1. General Information;

Part 2. Library Users, Staff, Resources, Services, Infrastructure;

Part 3. Usage of Library Services and Resources;

Part 4. User awareness/Education programs;

Part 5. Librarian's Satisfaction Level Regarding Library Facilities and Barriers in Providing Quality Services.

8.3.2: Questionnaire two LibQual +TM for Library users

It has divided into four sections, namely:

Part- A General sections

Part –B Library usage pattern

Part – C User's perception about Library Staff, Resources, Services, and Infrastructure

Part- D Suggestions and recommendations to enhance the quality of library services

8.4 Reliability Test: “The proportion of systematic variation in a scale can be measured and determined using reliability analysis, which can be done by determining the relationship between the scores obtained from different presidencies of the scale”. As a result, if the scale's reliability analysis association is high, it produces consistent results and is thus trustworthy. The measurement is considered reliable if the same result can be consistently achieved using the same methods under the same conditions. I used the SPSS statistical analysis software to check the reliability test while doing data analysis and interpretation & checking the values after entering the twenty randomly selected entities from surveyed data. After analyzing the randomly selected data result, Cronbach's alpha value is 0.971, indicating positive values for this testing. The positive crane is based on data reliability.

CHAPTERIZATION OF THE THESIS	
Chapter-1	Introduction
Chapter-2	Literature Review
Chapter-3	Central Universities of Uttar Pradesh
Chapter-4	Data Analysis and Interpretations
Chapter-5	Findings, Conclusions and Suggestions
Reference and Bibliography	

References:

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CHAPTER -2

LITERATURE REVIEW

2.1 A literature review is an essential step of any research study because it allows the researcher to get a broad overview of the available information on the topic at hand. In the above context, this chapter deals with current and previous studies on the existing scenario of quality services and resources in the universities library.

2.2 Purpose of a literature review

1. Conceptualize a theoretical framework for the topic.
2. Construct a flowchart of key terms, definitions, and terminology.
3. Build the research models, case studies, and other materials that support the research topic.

2.3 Benefits of Conducting a Literature Review

The literature review analysis has a variety of reasons and depends upon the chosen topic. The four key outcomes of the review are as follows.

1. A review of the present incarnation of research on a particular topic.
2. Recognizing the analysts on a specific topic.
3. Addressing significant questions about a topic that requires additional research.
4. Identity methodology adopted in previous studies on the same or similar topics.

The literature has been retrieved from the LISA (“Library and Information Science Abstract”), Scopus and Web of Sciences database and other prominent databases. The literature published during the last decade has been considered to draw research

reviews. All the reviews have been arranged according to subject classification and chronological order.

2.3.1. SERVQUAL:

Said & Kaba, (2018) discuss and evaluate the actual performance of Al Ain University's libraries in Dubai. The results revealed that present staff members were generally satisfied with the available resources and services are given by Al-Ain University (AAU) library. The result showed the highest level of satisfaction in terms of consistency, reliability, and responsiveness. Also found there was no significant difference in perceptions of quality performance between males and females.

Sajna & Haneefa (2018) found that libraries neglect service quality measurement when evaluating the service assessment of ICAR (Indian Council of Agriculture research) institutes. All four libraries have unfavorable distance ratings for all measurements with SERVQUAL model dimensions, certainly indicating that the library service quality evaluation falls short of user standards. They also suggested that the quality needs to be increased and recommended that libraries establish strategies for improving performance.

Farooq et al. (2018) suggested that the efficiency of the SERVQUAL tool study must inform the heart of service quality. Previous studies found that empathy has an assured cooperative association with the students' high satisfaction and that usability often affects empathy and user satisfaction. They also indicated that library management would concentrate on actively user requests of supreme importance to enhance accessibility and evaluation, directly associated with service and resource quality.

Hossain, (2016) addressed the quality service usage practice in terms of the user's perspective of current service results. He also focused on service quality servqual & services being linked to four main dimensions in the educational library context, i.e., care, ability, capital, and library as a place. They also revealed quality services and assessed users as the omnipresent benefit of academic libraries. They identified vital service quality and fulfillment measurements by developing a Likert scale for academic libraries to measure the quality of service and compliance.

Mehrjerdi, (2017) examines the performance of resources at the Management of Planning Organization's central library in Iran from the perspective of scholars. To assess the efficiency of the library resources, the author used the SERVQUAL model. Findings showed and analysis revealed a substantial difference between the two steps, suggesting that users' expectations were not fulfilled. A study showed no notable difference in the perspectives of organizational and non-organizational researchers on the quality of facilities.

Suresh & Mohan, (2015) suggested the library condition must be improved in many terms. The acquisition of books should be increased; the reading room facility must be improved. The library working hours should be extended and enhance the ICT tools in the library.

Shoeb & Ahmed, (2009) address the Independent Bangladesh University Library meets the primary standard. They have concentrated on critical determinants of service quality, including selection and evaluation and measurable areas; the further impact was desired expectation from the library user assessment and perspective on the survey. They also focused on insufficient resources that the user demand and needs must fulfill.

Dorairajan, et al. (2008) focused on integrated quality assessment tools, which can perform measurement and analysis in the Library services and resources. This indicates the SERVQUAL approach as an essential evaluation tool for organizations to understand precisely how scholars want and how well their existing library meets scholars' needs and demands.

Belkin, (1998) suggested Academic Resource Center (AREC) Mahasarakham University (MSU), Thailand, continues to improve library services for users & receives several suggestions for improving service quality; the users in the SERVQUAL survey address these suggestions. The recommendation should be implemented and acquire library assistance, provide an appealing library environment, provide accurate and timely services, and create an organizational culture that emphasizes continuous learning and the importance of understanding user needs.

2.3.2 TQM:

Chauhan, (2014) proposed that the library quality service assurance should be part of the University TQM project. Quality assurance and standards should also be established to determine the quality assessment of information services, emphasizing libraries for distance learning.

Arshad & Ameen, (2010) discussed and reviewed the "Indian Council of Agriculture research institute" libraries have lacked service quality, found that library collection and resources received high values. In contrast, the library staff's behavior was received as polite and adaptable. They also found that libraries have certainly lack modern equipment, facilities that users could be attracted to access. They suggested that regular user assessment and feedback can highly enhance the service quality parameters in the library.

Kaur, Mohamad, & George, (2006) study help to identify the quality service management with the ISO 9001:2000. The ISO provides an obvious work procedure and maintains the relationship between the team spirit. They suggested how the quality improvement journey can be committed to a conducive environment for the customer and management team.

2.2.3 LIBQUAL:

(Mutisya & Onyancha, 2021) the study expresses the user expectation towards the library services at the "African Union Court library." Findings reveal users have reasonable expectations about the library's physical assets, and a high factor found that users associate with the library collection. The material resources should be available on time, and library space must be extended so that the student can get the proper place for their studies. The library should be more equipped with good resources. The library could perhaps concentrate on the reasonable desired expectations, as these are the quality service elements that users value the most.

(Mehta & Wang, 2020)The author had examined the transforming paradigm of the library because of Covid 19. The modified definition of the library demonstrates its significant meaning of it. The library will, however, work with students and recent scholars tremendously. It also discusses the library has transformed resources into a highly accessible format that may call digital design and has searched to explore new experiences and practices to facilitate the complete online facility of learning resources for the university's teaching since March 23, 2020. They also identify the difficulties and consequences of outside and remote library practitioners. Online library systems, visitors, and library staff have been influenced by the worldwide pandemic, offering these services in many ways. The library performs its facilities in a unique paradigm that it has never practiced before. The obstacles have created the door to learning for a library, being more prepared for computers, and becoming innovative and interactive. In contrast, some have generated significant hurdles that affect their job performance.

Salauddin & Kumar, (2020) found the service quality and resources at Tagore Library; Lucknow University was not satisfactory about the user perspectives. Suggestion revealed that authorities should be concerned about the library assets either online or offline too; Library professional staff should be skilled to resolve the user query. They also suggested the recommendations must be implemented as earliest as possible.

Ip & Wagner, (2020) indicate that 1300 institutes worldwide adopted the LibQUAL tool Model. They also explain academic success has a significant factor in revealing library service and information resources. Investigated the relationships dimensions with library quality and library performance for this study, practiced hugely reliant upon established tools and improved their existing service.

Alves, & Souza, (2020) concentrated on university library-quality services directly influencing the users, what they are offering, and showed that university libraries have different efficiency values, while the library service and quality parameters have operational standards and policies. They also prove that zero gain models are suitable for

allocating resources in the library system as the increase in average efficiency achieved through the reallocation of the STAFF input is of particular interest to the library system's central management, as it allows for more efficient use of resources.

Ghaedi, et.at (2020) stated that the user specification has varied from time to time. We must be maintained our services as per their perception and support them accordingly. The college libraries should meet their users' minimum criteria and concentrate on achieving the library's quality to the highest acceptable standard. They also recommended that library managers of academic libraries plan the needs and prospects of the users, staff, and teaching academic fraternity in their strategies.

Reid, (2020) Discussed and articulated that management must take decisive action and provide support for the advancement of quality service. "The public libraries operate in the twenty-first century, the ideals of access to information, education, speech freedom, the right to fully participate in a democratic society, and a competent and impartial culture remain as important today as they were when public libraries were first established. As a result of this, we can contribute to ensuring that the quality of public library facilities is evaluated and proven to have a significant impact on the populations we serve".

Upadhyai, et. al, (2019) developing countries had accomplishments in dimension scale LibQUAL studies on service quality. This study also showed that only some of the previously released works have developing nations, "including India, Nigeria, Bangladesh, Iran, Malaysia, Pakistan," etc. Indeed, it has evident that much of the library quality of service measurements are mainly highlighted in the developing nations. In recent decades, substantial numbers of research projects on the quality of Library services have also been conducted in Indian libraries and information publications.

Silva, et al (2019) the work result have a different approach, given the SEVQUAL model, which he has not agreed with (Chase, 1988). Librarian facilitators and library supervisors can emphasize user-focused actions procedures that include a high level of library quality service. The actual quality of service relates more in contrast with the

perceived service quality retention situation of library service quality or the uniqueness for work that they incorporated into each other.

Partap, (2019) acknowledged that library administrations should have improved e-resources, reading rooms, and personnel skills to achieve maximum user participation, and suggested information and communication technology (ICT) and increasing scholars studying demand libraries should be created to move from traditional methods to digitalization approaches settings, users need better service provision. He indicated that this report would be beneficial for library staff, academics, and educators in the library and information technology who would like to do additional work on the service quality aspect of libraries.

Gathoni & Walt, (2019) mentioned broad service areas for AKTU library staff AKTU library management should consider giving employees more experience in their service desk capability. Suggested physical facilities, equipment, and continued upgrades, such as computers and ICT applications, must be updated and ensure that the new assets' purchase must be continued as per the user's need and demand.

Hossain, (2019) revealed how the Zone of Tolerance tool could make a significant-performance mapping system and improve library management decisions. It can be implemented and processed the quality service parameters analysis and require concentrating solely on user-specific services, strategic planning and accurately distributing library services, and analyzing the quality of library performance based on user expectations. He also developed an integrated system for evaluating the library quality services efficiency in a collaborative phase.

Choshaly & Mirabolghasemi, (2019) studies show and investigate the integrity of library quality of service. This research also proves that women and undergraduates are much more delighted with the library's quality of services. They also concluded that the influence of facilities, information systems, and library as a location does have a substantial, remarkable effect on aggregate library information quality. The suggestion of the LibQUAL tool must be applied for measurement analysis or the quality of services.

Nasibi-Sis, et al. (2019) evaluated the service offered by the hospital libraries and found that it did not meet the minimum specifications of user aspects, the strategic management, and library mainly as a position for managers to pay greater attention. They also focused on the high quality of resources needed in the library and attempted to improve library collection and recommended resources for its excellent frequency. They also expressed that library managers should consider a quality user study room to create a pleasant environment.

McCaffrey, (2019) discussed the efficiency of the LibQual+ tool for libraries, and research data reveal an excellent chance about the user feedback assessment best way to identify to quantify progress. The study found similar results expectations of users over a decade and provided an alternate viewpoint to the University of Mississippi (2011); the study did not find betterment improvements in users' attitudes from a period. Suggested different libraries have diverse perceptions in evaluating through LibQUAL+, the level of result will always be different to measure the affected to gain value enhancements.

Deepa, et. al, (2019) consider and discuss the essential library services, strategic management, and the resource-based central importance of subject area scope, application intensity of the users. The conceptual and functional evaluation utilized information from different resources of the database system, which as the procurement of materials, library distribution, knowledge repository of institutes' building projects, etc. The modeling was based on the number of clients used through 2004 and 2014 from the optimization collection of text data.

Long, et al, (2019) results indicate based on five dimensions, "such as position, assurance, responsiveness, reliability, and service," knowledge has significant associates on the level of library services satisfaction for users. The findings also suggest gender- and study-time satisfaction levels between different results. The factors of the study have such a highly significant effect on sustaining while enhancing quality. This analysis provides valuable input into the program design to change and rectify university libraries' quality.

Afthanorhan, et al, (2019) concentrated and investigated the Library Quality Service University Sultan Zainal Abidin (UniSZA), Malaysia. The outcome review takes an optimistic approach to the positive relationship between the efficiency of the library facility and user satisfaction. The existing library services were strongly impacted by user perception, and appraisal content, equipment, and acquisitions were highly important. The user was given significant and positively impacted suggestions, like acquiring books needed. More ICT facilities need to be purchased or updated, acquire photocopying machines and other literature search facilities need to be more increased.

Tooranloo, et al., (2018) evaluated the quality resources and services offered to the users and evaluate the usage parameter of their resources. They also focused that the lack of sufficient space for high learning and research must be the highest priority to enhance the library service quality & the decision-maker can decide to enhance and improve the library service quality.

H. S. Egberongbe, (2018) discussed the different strategies in operations management and services delivery and contrasted them with current trends in academic libraries in southwestern Nigeria. "He also looked at the various quality management (QM) models and strategies from which a quality improvement framework was developed for Nigerian university libraries. He also addressed improvements in service delivery quality and operations are certain and Nigerian academic libraries embrace the proposed framework for QM implementation".

Ganguly & Pramanick, (2018) discussed the library in the 21st century has begun to focus on user satisfaction, which quality resources and services have only accomplished for the user. In the current scenario, every organization can survive only with good resources and service development. Articulated that the library should be dedicated to delivering its users with quality service, The TQM can enhance quality parameters in the library, and applying total quality management has changed every library's thinking process.

Malapela & Jager (2018) reviewed library services strongly depend on user analysis. Endorse evidence that quality resources make the library and library services frameworks explain their presence. The result reveals that library significance analyses lead to specific user policy requirements. The library professionals need to develop the path to understand users' needs better.

Mallya & Payini, (2018) focused on the dimensions of information resources criteria on overall user's gratification relating to library service quality. Explained information from print format to electronic was excellent, but the previous result was average. Suggested that library administrators must be a focus on library services that can influence students' overall perception regarding library service quality, such as information-seeking behavior, information retrieval, informational literacy skill, situational factors, personal factors, etc

Mallya & Patwardhan, (2018) concentrated on the performance can improve the library performance and have a unique and valuable strategy for incorporating strong force. The area needed to enhance the services and identify customer satisfaction. The significant reason for using "LibQual is a common instrument that libraries use to evaluate and measure quality library service and get the user perception over last decades" From this viewpoint, the customer's opinion regarding library efficiency can be measured.

Karim, (2018) suggested several valuable ideas that have been enforced on libraries to enhance their selection. The library needs an inventive and revised compilation that includes textbooks, reference books, periodicals, etc. Incorporating ICT usage is vital for accepted communication and assured the retrieved information to the users. They must develop, revitalize, and make critical services more user-friendly like other educational institutions.

Adam, (2017) suggested the services offered by the library need to be enhanced, and the library users need to update services and resources that can be energized to use the library where the standard of the services provided will lead to positive outcomes. They also

suggested that libraries enhance service facilities by promoting the tripartite role of academic teaching, learning, and researching in university institutions.

Graves, (2017) Reviewed the accessibility of Library resources and services. The assessment result revealed that the user indicated a positive impact and was fully satisfied. The development also analysis that the Electronic Resources & Serials Services section must be enhanced. The library's Systems must be upgraded to implement as soon as possible and positively impact our graduate student and faculty user experience and raise their level of satisfaction.

Boyce, (2017) addressed and understanding of quality library services for users, providers for these quality services have to be understood regarding the help to support excellent services and resources pleased. He also focused on remarks that librarians could evaluate—the better way to assess service providers if used for evaluation measures. The libraries realize a new aspect of user experiences by studying to take a positive look at the quality services and resources.

Ahmed, (2017) focused on users of public libraries' usage of library resources and services. The central and state governments should collaborate and focus on establishing public libraries. They also suggested that significant consideration should be given to increasing the degree of fulfillment of public academic resources. The librarian knowledge enhancement must be concerned and committed to improving library users' degree of satisfaction.

Rezaei et al., (2017) found that expectations of the services did not meet the student's point of view. The result shows a negative quality gap in the requirement of educational programs. And that much in- high depth research is needed to further investigate the quality problem in Iran's education sector to introduce successful interventions that reach the educational expectations and students' perspectives. These findings commented that service quality is a frequent issue between Iranian higher education institutions, demanding even more research. Iran's academic institutions and other higher education

institutions have to provide further attention to many facets of quality service, particularly within these three elements of empathy, reliability, and assurance.

Moore,(2017) discussed the user assessment of library facilities and discussed that technological innovation has a tremendous impact on user evaluation. They were focused on libraries trying to accomplish the demands of supporting relevant resources and services to the users. They also proposed a systems model to examine the amplitude of qualitative feedback left by a Discussion of a small to medium European academic research library in LibQual+ surveys.

Haruna, et al., (2017) indicates that essential feature of the performance of library services in terms of web-based services. All measurements considerably impacted the overall library service quality expectations, resulting in user satisfaction and commitment towards the systems. The study used the tool LibWebSQ as a reliable and authentic metric for calculating library service performance on the network. Library management focused on the user's needs and requirements.

Lilburn, (2017) discussed the mutual relationship between the LibQUAL+ and standardized service quality survey. He also concentrated LibQUAL+'s growing popularity in pressures endured by universities to follow private-sector management practices. He also indicated that academic libraries are frequently identified as spaces that promote learning and independent inquiry, promote equal access to information, and encourage academic and learning participation, contributing to society's greater good.

Atkinson, (2017) defined the theoretical system used for the institutional library operators seeking to consistency or re-evaluate their facilities and supply. The tool that can be evaluated by library services such as LibQual+ provides very informative development recommendations on the effectiveness of educational university libraries that emphasize different customer service aspects. The suggested structure is not only about quality assurance resource administrators, and external using the system are urged to examine the change management and teamwork. User interaction is suitable for library development and innovation.

Herdiansyah et al., (2017) addressed how library resources are leveraged. The examined library must be user-friendly. The user expectations include easy access, library resources, a relaxed atmosphere, effective library staff leadership. The library resources accessibility must be accessible and specific. The user analysis must be implemented as per policy.

Cabrerizo, et al. (2017) analyzed that the LibQual model is insufficient to assess library quality service. Results indicate that scholars are more comfortable using linguistic terms than numeral terms values to calculate service quality measurements. They have computerized fuzzy computation methods with terms used in the computing efficiency tests of university libraries to identify their intensity and limitations. Prospects integrate multi-granular linguistic competence to provide the highest degree of expression of views for library users; they propose reinforcing the existing computational-based fuzzy linguistic LibQual+ model.

Dash & Padhi, (2016) used both the object for the qualitative and quantitative study of the library service performance to validate the assessment and reliability of the LSQA scale. Concentrating on the library's fundamental objective to provide outstanding services, the readers' essential requirements and assessment include developing ICT technologies, content to satisfy user needs, and embracing high-quality service. They have mainly focused on the fundamental concepts of Ranganathan's for the library service and user assessment.

Atkinson, (2016) indicated the quality and efficiency of educational library services and was not affected by the financial constraints. The changing assets can positively impact library services. The libraries themselves have to adapt to continue providing high-quality and relevant services, where adequate coverage of the academic fraternity, learning, social and technological changes affect university academic libraries.

Kundaeli, (2016) suggested positive recommendations, which must be implemented in the Academic session. The libraries should promote the information via websites, library guides, and social media platforms such as "Twitter and Facebook" to generate attention in their libraries. Suggested Ghana Institute of Journalism institutions; Ghana & Ashesi

University College, Ghana could make different study locations that will meet the needs of other user groups. The institutions have to ensure a high level of the collection as per their norms that promote the institutions' core purpose.

Dahan, et al., (2016) addressed and reviewed the LibQual model, comprised entirely of 30 factors, and assessed the degree of service quality indicators and system quality of the services available, suggesting that library selection was of significant concern. The anticipated additional acquisitions of online services, more friendly and accessible. Concentrating on library resources and organizational performance led the university academic libraries to enhance the services and make a platform for future work in similar fields.

Natesan & Aerts, (2016) the outcome was addressed for the first time on the issue of whether participants could differentiate between the measurement rates in gap theory. The positive response has for LibQual+ ®. The failures in evaluating and measuring objects across measurement rates are associated. They suggest that mere deviation is an unreliable calculates of the gap theory; based on the findings provided here, the irregularity of measurements must be identified before the gaps can be measured.

Jayasundara, (2016) perspectives from library-quality service in the Sri Lankan university provide a more profound thought into the development of user service regarding the library of the university system. This research further confirms the convincing claim put forward by "Bolton and Oliver in 1989 quoted in Bolton and did draw (1991)" that quality-only assessment can be used to measure users of regularly supplied public services.

Oud & Genzinger, (2016) Researchers concentrated on evaluating public library facilities is being retrieved quality library services parameters and essentials for the development of the library system. The present resources and services have to be checked by the user assessment. The received outcomes should be implemented as soon as possible. The library environment should be user-friendly and assessable to all so that the objectives of the public library can be achieved.

Kim, 2016) concentrated on users' expectations toward the library as a position for the ramifications of academic activities and the sense of place of users in a library that affects their behaviors in using the library. He also provides evidence about the perception that the academic library takes tools for learning and development, thus improving our knowledge with the gratification of learning to give some insight into user-centric spatial planning.

Pourahmad, et al., (2016) proposed result significant integration should be enforced with immediate effect, connectivity of information, and digital information resources and services at work or home, including upgrade user-needed print and electronic services; well standardized with modern and up to date library tools with amenities which enable people to obtain the necessary material automatically. The library needs to be enhanced and promote information resources and services that lead to contentment for the specific work.

Atkinson, (2016) discussed the libraries' methods, but validation must be implemented. Mentioned the quality management provision in this chapter, removing the enormous challenge demonstrates high-quality gratitude. He also articulates the management library-quality system, facts, and figures, optimizing the data from approximately. Based on the conclusion, user satisfaction with the quality of service will be of high significance to the institutions; they will plan for the importance and effect of the strategy formulation result.

Dahan, et al.,(2016) discussed and reviewed quality service expectations of users focused primarily on the exploration of approaches that complement service requirements. He developed the principle of assessing the difference value between the provisions of users of the services offered and the appropriate standard of service. The custom survey tool based on the LibQual model had applied. Concentrating on the library quality services being examined and their users 'observations can provide meaningful input to academic leadership to enhance the effectiveness of quality services and the

gratification of the users. Findings will serve as a benchmark for developing their services for academic libraries and as a basis for further research in related areas.

Khan & Tripathi, (2016) The LibQUAL+ technique model used to understand the library efficiency supported by the Burdwan University Library and Visva Bharti University Library Association academic community. Both universities had the ICT facilities in the library automated and maintained. University libraries' performance primarily relies on the constant information of various events, roles, facilities, and the necessary assessments made recently by the academic administrator. The outcome review was focused on the performance audits of university libraries.

Xi, Li, et al., (2016) the result revealed that the level of user satisfaction in china has acceptable with present resources and services. The high recommendation has to be implemented, like acquiring the books per the university system, ICT technology, and network should be re-evaluated on time and advice for reading should be given to users. The essential information system should be regularly delivered; knowledge-sending resources must be checked periodically from the library.

H. Egberongbe, et al.,(2015) articulated that measurement and the library's performance both inside and outside were not well-practiced. There was a limitation of specific mechanisms for assessment measurement and evaluated them. The available resources potential procurement method listed as a significant component that could be made affect the practical purpose of quality management of academic libraries.

Khaola, (2015) concentrated on determining stages of gratification towards the library quality service. Also, it examines the behavior of library staff as unacceptable as the mark from the level of service experienced by the applicant. The library itself should manage the information access retrieval process. Suggested a positive perceived library-quality service and user gratification. The library user satisfaction affects library resource usage in this research.

Jackson, (2015) focused on library service quality with User interpretation. Articulated difficult to obtain these experiences in library services assessment, but the challenge can rarely be conveyed while libraries assess the score and evaluate. He also shows that library quality must focus on the librarian's role in deciding how rankings effectively assess libraries for the users.

Hossain & Ahmed, (2014) proposed the ingredient-scale validation in university libraries for quality of service evaluation and further explored the preferred element-scale, namely RE derived from an earlier research report. Also, establish a new service between articulated RE measurements. The measurement and evaluation must be required to improve it as a reasonable definition.

Hsu, et al., (2014) explored library quality of service in university libraries through LibQual scales and observed that dimensions of serial, acquisition, resources have correct working. Classification approaches for finding and obtaining data and the appropriate time was accurate findings.

Mardani, et al., (2014) addressed the primary service aperture for all the resources and services in the library. He preached that university libraries have primarily succeeded in meeting user expectations regarding collection and resources. Still, there is short availability of periodical, other text and reference books, and e-content related information tools, among the factors that create gap inaccessibility of information. He concentrated on the existing service quality deficiencies, not because librarians were unaware of user preferences but because they could not provide adequate services due to uncertain constraints of the system.

Asogwa,et al., (2014) suggested that attention is being paid to allocating adequate ICT equipment services by the authorities involved and that libraries in rich content should be more involved in improving ICT infrastructure, subscribed and acquiring e-journals for

library users, learn and study. Noted bibliography services should allocate and access for them. Technological advancement can enhance library service and resources.

Fagan's, (2014) result revealed that the LibQual tool had analyzed the library's service quality parameters. The analysis demonstrates a strong correlation between the two variables. They also explore that the literature's unique point of view takes more confidence to build the excellent structure of the library. Suggestion reveals that the user's assessment should be carried twice a year.

Sheikh, (2014) findings indicate current quality service at the Institute of Information Technology, Islamabad Campus, Pakistan, must be strengthened. They also show the user's viewpoint on the efficiency of the library. The research used the LibQual method to determine the efficiency of the facilities. The quality parameter standard depends on the needs and demands of the scholar. The analysis also showed that Pakistan is a developing country and has not gained the libraries' financial situation as a wish for them.

Hossain & Ahmed, (2013) addressed and suggested that the Service Quality Control Matrix (SPCM) could be used to test educational libraries ' service quality. The tool guidelines for managers to decide the priority assigned to a specific strength and the excellent quality of the services in the library.

Xu,et al., (2013) discussed the three major Quality service approaches by exploring the role of service consistency and service quality. Service quality is crucial, as the user has increased the focus of service quality evaluations, not just standard system quality and information quality. Focused on theoretical and experimental assessment of the relationships of these three outputs and speculated that perceived machine quality influences perceived information and perceived service quality and perceived accessibility of services influences perceived Service quality.

Mawoli, (2013) indicated academic and non-academic Nigerian universities responding to inadequate funding and decreasing quality of university education. Consequently, Nigerian universities lacked global and continental rankings; none of the country's universities was among the world's best 3000 or 40 universities in Africa 2011. Perceived poor service quality has ultimately affected competitiveness in the university sector and decreased the institution's prestige. Decrease the users from the usage of universities library. Research findings are the negative gaps in the quality of the service dimension.

Albu & Cristian, (2012) focused on the quality service management timeline for the university library system and user satisfaction. The user is the beneficiary of these services; implementing Quality Of service Management in the library entails supporting user-centered, high-quality library services. The extent to which users' needs, expectations, and requirements have been met determines the quality of services provided to them.

Harer, (2012) Suggested that American academic libraries are well aware of the need to assess the importance of their users' resources, services, and facilities. They specified that quality service expressed that the excellent library collection is regarded as crucial as determining and delivering it in any private or public area. He addressed various approaches to quality service improvement, i.e., customer satisfaction surveys and research, quality management, TQM, continuous quality improvement, the Baldrige Malcolm Nationwide Consistency Recognition, ISO 9000, and the Integrated Scoring system.

Haliso & Aina, (2012) addressed the library as a primary set-up for collecting, arranging, processing, maintaining, and disseminating information services to users in meeting their information needs quickly. They highlighted the selection of a quality library array of quality standard information resources and services that should be important and moderate the information need of the library users. In the competitive scenario of the

quality paradigm, the academic libraries will highly require the delivery of excellent information.

Sohail, (2012) addressed JMI Central Library's enhancement to increase the perspective of their users on the services offered, and service providers need to realize that the conviction of system value is a subjective matter of their profession. The user requirement constantly changes due to unspecified reasons; the library must fulfill the requirement. Concentrated on resources and services that must be re-designed to the needs which desires of the client.

Greenwood,et al.,(2011) found adequate gap scores in the library but did not create a policy to change the scenario. They are concentrated on the user's query about resource access constant factor in information control. The study also finds that noise is a significant element affecting the dimensions of the service. The ICT application must be enhanced.

Balagué & Saarti, (2011) suggested the terms about the quality mainly focus on the quality service in the library "only be realistic. Provide services which the library is capable of providing. Establish what the library will deliver and determine the level of quality for each service. The users must use the existing facilities and services. It recommended that they consider outsourcing some of your resources and concentrating on the main areas.

Noh et al., (2011) focused on and recommended some key factors, studying or perusing or research work joint to use the academic library. Library upgrades modern technology that users can support in updating their skills and knowledge. Many online databases and offline research tools are available, which can be helpful for the students. The university library system will have to update from the heart's ground up. To design them, the librarian and managerial staff should show leadership.

Opara, (2010) addressed quality improvement in all aspects of library operations: material selection, ordering, receiving and checking, accession, cataloging, classification, etc., and each of these steps must be done correctly. Focused on Total Quality Management, it has to "quick fix," and it takes time to implement it fully & emphasizes continuous process improvement, staff building capacity, synergistic relationship between all work processes, and communication.

Kalb, (2010) conducted and evaluated Research library and Canadian academic libraries. Academic libraries have the unique opportunity to study at the highest group level, not at the individual level. Suggested the great opportunity to the users for the gratification expectations by different parameters. Expressed information proves helpful with other institutions, agencies, and other financial resources to support research and academic library council based on its member's supervision.

Einasto, (2009) articulated how the "Zone of Tolerance idea and an essential-process performance forecasting method could be used to support the library system. Performance analysis of the users can make the information resources and services". The Zot concentrates on client-specific services, efficiently allocates library resources, and analyzes service quality based on user perceptions and service analysis.

Einasto, (2009) this research examined the library facility's reliability based on scholarly ideas and the quality measurement system scholars defined as relevant. He discussed substantial discrepancies of both the UTLib Qual instrument from universally agreed on approaches to SERVQUAL and LibQUAL. The research has focused on reconstructing the quality of the university service system's level upon the four major quality assessment dimensions: services process, knowledge services, accessibility, and staffing.

Miller, (2008) addressed library facilities, extended and upgraded regularly. The procurement of library assets must be on time. They also expressed that service impact scores had a slight to a stronger negative correlation between service effect and total library expenditure. This finding is that expenditure can be the organizational, managerial scale.

Kayongo & Jones, (2008) concentrate on demands and priorities towards the library quality service between the users and faculty that every party must consider when making advancements to the facility. The LibQual +™ methods assess user needs and measure their performance to reach specific requirements. They also expressed the result analysis based on staff and management, making library-quality service the most essential field for change and development.

Kai, (2007) suggested that the Quality Service of the Zhejiang University Library examines and measures the user's attitude toward it. He also proposed increasing library service quality and put forward for practical use. They also concentrated on the library environment and service in a different domain.

Sahu, (2007) examined the JNU library was no shortage of the quality of services. The quality of information services allows people to identify and satisfy their information needs, creating confidence in using knowledge extraction systems, and putting the system process of working with library staff a comfortable experience. He also focused on the JNU library, which must have an organized information system based on users' needs and activities. He also explains consistency in handling users' expectations, guidelines, or requirements.

Weiner, (2005) proposed library-quality service has a relationship between the specific user's satisfaction and user-friendly staff. Indicated aspects of library services have been investigated by the information retrieval, interactive demonstrations, users participants, reference, etc. He also proposed quality metrics for library resources and services that the Higher Education accreditation agencies recognized by the Middle States Commission.

Manjunatha & Shivalingaiah, (2004) focused on the perception of the users about the quality that depends on existing resources, services, and user expectations. He indicated that the institution should be equipped with great resources and good services that made the good along the dimensions of quality of service would expose their expectations and tackle the same would minimize the gaps in service quality. He keeps throwing light on the quality of service management; it has pertained to the dedication towards the continuous improvement from top management.

Wilson,(2004) discussed two immediate actions that have required implementing a 24-hour library facility & quality resources and services enhancement plan throughout the library system at Vanderbilt University. Addressed the need for change in the library system to meet our users' expectations better. He also managed library management to continue to assess the results and make potential changes to the system as needed.

Kyrillidou & Heath, (2004) addressed the relationship between library facilities, services, information resources, current collection, employees and evaluated ratings on the chief parameters of LibQUAL+ service quality. The result of 130+libraries reveals the influence (Affect of Service, Access to Libraries, access of information). Focused on the service quality assessed upon the service impact factor, which appears to have a very inverse correlation to selection acquisitions representing the higher standards.

Lessin, (2004) articulated service's shortcomings in different areas. Library assures, indeed moving in the right direction. Emphasizes using the comprehensive resources and services that the users must use. This strategy introduces destinations to presenting the results of LibQUAL+ to help libraries optimize service quality.

Nimsomboon & Haruki,(2003) found that the service quality in the library must be accessible, and some areas need improvement. They also suggested the library should be

more facilitated in terms of ICT development and excellent service of internet facility, remote access services, and reference services.

Banwet & Datta, (2002) addressed service efficiency factor & user satisfaction predictive, tangible, and intangible service quality dimensions. They proposed that more appropriate books and journals should be procured. They also focused on the voluntary study of the effect of user satisfaction. Suggested results indicated that the service needs to monitor and updated.

Kemp, (2002) LibQual study evaluates users' perception of library services. They also expressed that technological advancement has a revolutionary impact on user needs, and it can be accommodated with them based on their needs in libraries. Tried to fulfill the demands of users about the supporting relevant information tools can make the positive habits of users.

Cavanaugh, et al.,(2001) addressed the delineation of various existing quality of services "(QoS) management approaches in centralized, real-time systems. They compared an eight-point comparison of research findings: middleware interface, managing breaches, supporting distributed applications, tracking data, specification of specifications, continuing to support features".

Cook & Thompson, (2001) observed that the library has a vast collection but doesn't reveal users' perception. They suggest that improving service quality should be a benchmark of the current perception of users & the LibQual tool is not only concise to define and monitor for enhanced the quality of library service parameters. The user's expectations or suggestions can be taught to the various domains.

Cullen, (2001) expressed two significant shortcomings that affect academic libraries. One is electronics resources and related tools. Addressed the quality of the service to

define the academic university library in Conditions of its selection and determined by the difference of the library's services and its different applications.

2.4 Research Gaps

Although there are several studies performed in the past examining the satisfaction of users with the service qualities, however, their various research gaps that have been observed:

1. There is a lack of understanding regarding the contemporary service quality trends in the central universities located in the country's largest state, i.e., Uttar Pradesh.
2. There is a lack of understanding related to the procedures used by the libraries in Uttar Pradesh to manage service quality levels.
3. There is a lack of understanding about the difference in the user perception about the “minimum service level, desired service, and perceived level” in the universities located in Uttar Pradesh.
4. There is a lack of understanding about the differences in the service quality in different universities located in Uttar Pradesh.

2.5 Conclusion

There are many studies available on all quality services in the academic library. Therefore we have taken some prominent studies to understand the basic concept theory, morals, techniques, and tools, used by earlier researchers. Among the reviews, I have noticed that Mallya, J., and Hossain, M. J have greatly contributed to the quality service assessment and evaluation field. I have also learned that quality parameters are applied in all academic libraries to provide better service to their users. I have also extended my knowledge of various quality assessment and evaluation tools, such as SERVQUAL, TQM, and LibQual.

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CHAPTER -3

CENTRAL UNIVERSITIES OF UTTAR PRADESH

3.1. University Concept

The word university is a higher education institution (or tertiary education) that awards university degrees from different academic disciplines. "Latin: Universities,' 'one whole.' Traditionally, universities include bachelors, master's programmes” etc. **(Gupta, 1992).**

The word university indicated the meaning, the word came out the “Latin Universitas magistrorum et scholarium meaning that the group of teachers and students considered” essentially. The modern concept of Universities begins at western mediaeval university, founded by cathedral schools for clergy in Italy and founded in the middle Ages. **(Young, 1983)**

A university is a higher learning place for education, research, and the development of technology. People achieve higher academic qualifications in undergraduate and postgraduate and make the career path. The interpretation of a university system is meant to indicate a house of Higher Education and research that proceeds bachelors and doctoral level of all degrees. **(“UGC Act-1956,”)**

3.1.1 University growth and development:(UGC, 2020)

The university growth Initiatives mainly depend on the social and economical development of the country. The country's development ranking is also measured by the research work. The development of the university is linked to the development of the country.

The Indian university took an important role to build a harmonious society, not promoting societal prosperity but also keeping with its rich democratic legacy. Indeed, some universities are working well to create the idealistic educationist people of the country. But Indian universities and other higher education institutes have faced new challenges with economic and social developments. **(Young, 1983)**

3.1.1.1 University system:

The university system has vast and a variety of administrative roles as well as academic development. Many Indian universities are doing an excellent job of producing educated citizens for the country. However, as the education system in Indian universities and other institutes of higher learning has grown, many new challenges have emerged. Technological development reduced the barrier from many paths. The university system provides the emerging industries and co-corporate institutions with trained and skilled professionals. The Indian education system is a largely dependent ministry of HRD and UGC. A developing country like us needs to arrange and establish world-class educational universities and need to revise the policies every 5-year plan scheme. Actualizing the high prominent need for realignment educational system of India. (**“UGC Act-1956,”**)

3.1.2 Central universities in India

The construction of the university mainly inculcate by the nation development, India's govt, through the parliament act, builds a central university system in India. India's govt is fully responsible for planning, assigning, and transmitting the resources that including the finance as well necessary by the (UGC) University Grand Commission to set up universities in India. Indian education higher system integration has the biggest system in the country, challenging the central government's obligation to formulate policies aimed at promoting higher education system quality in India. A special act of the constitution has also allowed the central government to establish a specific level of university conducive to the country's educational safety. The central government puts particular emphasis on scientific and other institutions 'research and innovation. (**Eqbal, Raza, & Sohail, 2011**).

3.1.3 Central Universities special features

The Indian President can serve as the 'unique guest of honor' to all of the main central universities. The Indian President is entitled to nominate the members to the council

Committee / Directors of board/laws/Court / Accountability Committee consideration the University of the Rules & regulations of the different law set out in the central University law Act. “The govt of Indian, Ministry of education and ministry of Human Resources and Development (MHRD) right in naming the president of India as vice-chancellors”(UGC, 2020)

3.1.4 University Library system:

The Library is the heart of the University/institution system. The library identified us as both the core of a university system that spreads the oxygen of life through the veins of an entire university structure and enhanced processes of conveying knowledge to its academicians. The university library system has already been considered the heart of the system, it is quite important to progress research and makes priorities, & strategies for the higher education system from the right perspective. The university infrastructure will have to undertake stringent obligations throughout the Glorification of the education sector for national goals. The central university libraries mainly interact with students, research scholars, and the academic fraternity. (Young, 1983)

3.1.5 University Library Objectives

The university library objectives to serve all users’ needs. The accessibility of service and resources must be available at the user’s fingertips. The library intends to include the information to make it accessible to all members at the correct time. The university Library priorities are based on library categories. A good library will assist for continuous progress the educational knowledge for all topics, and the need for accessibility of information, improving education and maintaining future generations’ literary heritage.(Vel, 2012)

3.1.6 Collection of University Library

University Library Collection Creating a large set of the library system that will be able to adequately serve the interests of educators, research scholars, and readers is a significant work of a university's library system. The university library selection

references could be categorized under primary, secondary, and tertiary. Information sources include publications, journals, inventions, guidelines, theses, academic papers, event presentations, and professional announcements. There are also various sources of secondary material, such as periodicals, abstracting articles, monographs, Literature search, indexing service, abstracting service, bibliographies, and so on, etc. (Vel, 2012)

3.1.7 University Library services:

"Committed to the service" the main slogan of the university library system. The main and important services are mainly offered by University Libraries, Reference Service, Circulation Service, Online Reservation Service, ILL., Reprographic Service, Printing Service, Guidance and Information Session Service, SDI, Audiovisual Service, and Multimedia Service, Online Query Service, Referral Service, Translation Service Clipping Maintained service, bibliography service, Literature search, consultation service for the students, etc. These are essential services that the university library will provide and another service depends on the subjects the university offers. ("UGC Act-1956,")

3.1.8 University library system: functions

The organization of the university library needs burdensome visibility into the nation's university education policies. University libraries will have to set up committees to accomplish university library outcomes. Understanding the importance of libraries in achieving higher education goals, the UGC suggested that libraries should be the focus of all university activity, explicitly to be able to track its scientific work and directly its academic work, which draws the existence from exploring the report. While the libraries are trying to express the university's priorities. The library should promote Academic education and research activities.

3.1.9: Concept of Service Quality for Library Assessment:

"The term service quality has several meanings, but in the context of a library, evaluation is described as analyzing the difference between a user's expectations and the user perception sense of actual results". Most generally, "service quality is characterized in

terms of reducing the difference between user expectations and actual service provided for library evaluation” (**Hernon & Calvert, 1996**).

Although there is some ambiguity between the concepts of service quality and satisfaction, “Peter Hernon concluded: that service quality focuses on the relationship between consumers and service providers, as well as the discrepancy or difference between perceptions about service provision and understanding of how the service was delivered”. On the other side, gratification does not require gap analysis. (**Webster & Mertova, 2007**)

3.2 Selected libraries for the study

The present study entitled “Quality Service Management in Central University libraries of Uttar Pradesh. A study”, Covered only four central university libraries in Uttar Pradesh, India, namely:

1. “Maulana Azad Library Aligarh Muslim University, Aligarh”,
2. “Sayaji Rao Gaekwad Central Library, Banaras Hindu University, Varanasi”
3. “Central Library, University of Allahabad, Allahabad”
4. “Gautam Buddha Central Library, Babasaheb Bhimrao Ambedkar University’s Lucknow”.

3.2.1 Aligarh Muslim University (AMU), Aligarh

3.2.1.1 about the university:

The Aligarh Muslim University (a Central University) is the fastest-growing university in the nation. It was established in the 19th century, with the dream of Sir Syed Ahmad Khan founded a reformist, progressive higher educational establishment. The M.A.O. College as the first journey began, and later in 1920 as it became Aligarh Muslim University, has become leading the pioneer in convey Muslim people into the section of scientific and technological innovation. Sir Syed thought it appropriate to create certain

arrangements with special regard to their education. In Aligarh, the "story of integrity" has an enthralling appeal.

3.2.1.2 AMU: Maulana Azad Library:

M.A Library has one of Asia's biggest libraries of central universities. The Library's foundations were established in 1875, when the significant social scholar of his day, Sir Syed Ahmad Khan. The Library foundation stone was placed by Lord Lytton. Originally, the library was called Lytton Library. India's first prime minister after independence late Pandit Jawahar Lal Nehru, inaugurated in 1960 and was named with the name of Maulana Azad Library after Abdul Kalam Azad, India's extremist scholar, social thinker, and after independence first minister of education. The library has a lavish seven-story building with good pieces of equipment enclosed by 4.5 acres of land. The more significant part of the collection is a very rare Oriental Division of the MA Library Endowments collected from great bibliophiles and literary persons are known by the names of their donors as special collections. The biggest part of the Oriental Division is the special language that is the Urdu series, attached one lakh plus books with nearly every element of Indian culture and heritage. The library's highest expensive resources have been its collection of some 16000 rare manuscripts. Some of the attractions of this library's manuscript collection are several royal decrees of Mughal emperors. M.A. Library is completely automated and uses 3 MM security systems with LibSys software. The Aligarh Muslim University's central library "Maulana Azad Library is the main library, renowned because of its unique collections of manuscripts, rare books, and objects". M.A. Library currently holds extensive information resources including books, thesis, dissertations and subjective journals and repositories for the study. With a wide range of library services made available by more than 110 college and departmental libraries, the library meets the requirements of its students, researchers, and research scholars.

3.2.1.3 Library hours:

The Maulana Azad library has open every day for 18 hours, except for a few national & spiritual holidays. The opening hours have been extended during the examination period. The library has extensively used by various students and academician, and special provision of visitors of the library users as a guest.

3.2.1.4 Library Collections:

These include library properties such as books, journals, pamphlets, historical documents, photographs, etc. About 1400 years earlier, the youngest handwritten document in the library was. The single piece of the “holy Quran transcribed by Hazrat Ali and the fourth caliph of Islam and it has written on a manuscript with the kufi language”. Some other rare book was Beyazid Ansari's Halnama, no copy of which is available anywhere else in the world. There is also a broad variety in the Library of earlier print books in different dialects. The much more remarkable of these is the Latin translation published in 1572 to Muhammad-al-Haitham (965-1039), from the acclaimed Arabic work on astronomy, optical prafatis. There are many farmers (decrees) of Mughal rulers, such as Akbar, Babar, Shajahan, Sha Alamgir, Aurangzeb, Shah Alam, etc. Rest another respected library ownership is a "Cover," from the entire Quran is published in the language of kufi. A fighter in the Mughal army is believed to have worn the uniform. “Among Mughal's vast array of drawings is the painting of dark Red Blossom”, which would be an Opus Magnum by the highly renowned artist of court Naqqash Mansoor of Emperor Jahangir. The library also kept several important works of Sanskrit that had been translated into Persian. Some things worthy of mention Ayurved in Malayalam and Telugu script which was written in palm leaves. An esteemed scholar named Abul Faiz Faizi, from Akbar darbar court, recently interpreted many compositions on Sanskrit through Persian, like MahaPuran, BhagvatGita, Mahabharat and LilaWati work.

3.2.1.5 Manuscripts: The library has excellent manuscripts, many of which are available in Persian and Arabic, which cover language as well as literature disciplines. The Manuscript's basic information is accessible in the library's online portal also. The scholar can study these manuscripts, and the whole manuscript is being digitalized.

3.2.1.6 Urdu Collection: The library has a prominent and greatest wide range of Urdu literature exclusively in the Urdu language of the 19th century. The library has full of rich content in the subject of Urdu literature, Journalism and history, the academic scholar has used it very frequently.

3.2.1.7 Reference Collection: As the title indicates the reference material refers to the specific place where the information is available. The library has a rich information content platform, such as reference books and other reference material.

3.2.1.8 Collection of microfiche: The library indeed has a significant number of microfiches on historically important papers.

3.2.1.9 Microfilms Collection: There is also the hardbound volume of the book and document of microfilms available in the library.

3.2.1.10 Set Of Arts Books, Rare Books, & Thesis: The Library has a really wide collection of antique handwritten collection during the 18th and 19th as well as 20th centuries.

3.2.1.11 Phonorecords and Phonodics: The MA library does indeed have a wide range of collection in theatre phonodisks, melodic vocals, orchestral music, rhapsodies, sonatas, symphonies, etc., and baltic music phonodisks along with performances and transcriptions of the esteemed character.

3.2.1.12 E-Resources: The library has access large number of e-resources like Cambridge university press for social science digital library, Elsevier, which covered all the technical and medical subjects, springer e-books online and Taylor & Francis for social science digital library.

3.2.1.13 Library and E-Journals: The library has subscribed to different types of electronics data base services from DELNET, EBSCO, EMERALD, UNIV COLLECTION, INDIASTAT.COM, PHYSICS INSTITUTE, PROQUEST

DISSERTATIONS & THESES GLOBAL LIBRARY, PROWESS, SCOPUS, Science Direct, Sci Finder SCHOLAR, UPDATE

3.2.1.14 Other Collections: The Maulana Azad Library has a great collection of some prestigious personalities, like Sir Syed Ahmed, Ghadhiyana, Aligarh collections. This asset can be motivated us to establish, & make the path how to motivate the educational movement.

3.2.3 Library Services the Maulana Azad Library provide these services which are being listed below

3.2.3.1 Circulation Service: students can issue the books and other reading content. The students must take the membership from the library, after that they can privilege the library services the books can issue from the academic staff and faculty members according to their library terms and condition.

3.2.3.2 Information retrieval service: It is a service that transmission of information resources. Accessibility of information has been inside the library as well as outside also. The information material can even be access digital form.

3.2.3.3 Reference Service: From the viewpoint of the users, perhaps the most important tool is information service. The staff of the library must be experts to assist readers in finding the documents they need. The library supports users by providing different reference resources to support users in the corresponding study materials.

3.2.3.4 Bibliographic Services: Bibliographic services on-demand are frequently provided by the Library to staff and academics. The research section staff compiled bibliographies at the request of student and faculty.

3.2.3.5 Documentation Services: The library is already being provided with documentation services, and two bibliographies have already been published. Practitioner Aligarh Movement: Great Sir Syed: a bibliography. Abdul Kalam Azad, well-known

academics: a critical and annotated bibliography on both themes. The documentation service of the Urdu library provided a quarterly library list for Urdu periodic literature.

3.2.3.6 Current Awareness Services (CAS): This service was launched by the library as a current awareness service. This bulletin has sent to all the respective departments, the full details of content be obtain from the respective sources which were cited by the library. we can say that it has basically meant for the users. The rare Digitization and Book Material Library journal has initiated the digitization process including documents and some rare printed content. Throughout this respect, about 150 manuscripts and unique printed bi-lingual writing were digitized, and Sir Syed Ahmed related content also digitalized, Gazette from 1864–1922 Aligarh Institute. The Tehzibul Akhlaq all issue has been digitalized.

3.2.3.7 Periodical Services: MA library has developed a laboratory of 20 nodes for online journals. This is connected by optical fibre to Computer Center's main server. The Maulana Azad Library has subscribed hard copy as well as soft copies of the journals almost 55,097 journals are available in both respects.

3.2.3.8 Advisory Services: The Maulana Azad Library guides its readers and scholars. The advisory service typically means providing users with advice on a specific issue or subject.

3.2.3.9 Inter-Library Loan Service: Documents in the library are not accessible, they will need to be acquired from another library. The Library provides the required Inter-Library Loan documents. They also provide other libraries with articles concerning inter-library loans. It's a good service and access to make an information path.

3.2.3.10 Organization of exhibitions: MA library offers extension services and exhibition on various occasions through the display of books / Pictures/Information of rare collection etc

3.2.3.11 Reprographic Service: in this section, you can obtain multiple copies according to user requirements. A very low amount has been paid to users. The activity is

a very helpful tool for library users. Photocopying is subject to copyright laws, affecting services to document delivery in libraries and information centers. The copy is also produced in this section, according to the user needs. This facility can facilitate access to information.

3.2.3.12 Plagiarism Checker Software: plagiarism checker software is also available to staff members to prevent duplication of research. This will improve the expertise as well as the analysis of subject information skills. Before the publication of research work, it should be mandatory to check the duplication of work.

3.2.3.13 Other services: Besides the regular service offered by the many universities but the Maulana Azad Library offers unique assistance to its users, in particular research scholars. The Grammarly program has available for scholars and the research community to strengthen their writing skills and make good articles. This service is available on request.

3.2.3.14 Library Staff: The present status of staff is: University Librarian 01, Assistant librarian 05, Information Scientist 01, Professional assistant 07, Semi-Professional Assistant 48, skilled staff 15. The total number of staff in the Maulana Azad Library is 139.

3.2.1.4 Library divisions/Sections

3.2.1.4.1 Oriental Division:

The Maulana Azad Library has its own 1.5 lakhs of books in various subjects, including Persian, Urdu, Arabic, Hindi, and Sanskrit. The research scholars have used these topics very often. This section has a very wide selection of rare 18th to 19th-century books. The entire rare collection is a very valuable commodity for the MA library so that the digitalization of printed books is being done; nearly 15,000 rare books have been digitized.

3.2.1.4.2 Manuscript division:

The library has many rare manuscripts. “One of the oldest manuscripts among all of these was a copy of the Quran preserved in the library from 1400 years ago”. It was written by the fourth Islamic caliph, Hazrat Ali. It's written by script Kufi. Another rare manuscript is Bayazid Ansari's Halnama and a copy of Hazrat Ali's Nahjul Balagha. There are many Mughal kings like Akbar Shahjahan BaburShahjahan, ShahAlam, Aurangzeb, etc. The section also lists the important paintings, Sanskrit works. The Manuscript for Malayalam and Telegu is available on palm leaves.

3.2.1.4.3 Preservation/Protection and Binding Section:

Every esteemed library is strongly considered with the protection and preservation of golden heritage. The Maulana Azad Library has dedicated to this. The collection has bound with strong elements, such as newspapers, old books, and cultural heritage collections. The Library incorporates elements for "curative" and "preventive" methods.

3.2.1.4.4 The Collection Development Division:

This section deals with the collection of documents authorizing the purchase of books. The collection of any books or articles is highly academic community-oriented. The collection of books is made through reference devices, combine lists, the recommendation of subject matter experts, faculty members, etc. In this section, the gifted and donated books are regularly received by the library, which is also a significant library practice. They've received a lot of books from in-house publication gifted, donated, and also another special language, as well as eminent personality selection from gifted mode some time.

3.2.1.4.5 Circulation Division:

The University Library's Circulation Division has offered to access this division for users, faculty, and staff. Users may go directly to shelves to pick the appropriate items and can borrow them after selection.

3.2.1.4.6 Periodical Division:

The periodic collection handled in this division and prepare for potential accessibility. The Central Library has a strong spending-journal program. This procures division controlled the newspaper and general magazines of the currents. Currently, approximately 700+ hard copy journals. The e-journal has numerous countable 16000+ subscribed. Besides, they have also subscribed to the world-renowned database for the scholar's community.

3.2.1.4.7 Computer application division:

The Library is indeed a part of a LAN network focused on optical fibre. For the 175 computers in the Library, 100 systems are accessible solely for use by academic scholars and staff members. Computer Applications Division creates new models for the users to update the services from the library; The central library used LibSys software for operation and housekeeping functions. Education and assistance are also offered to the university's users and employees on data processing and clerical work.

3.2.1.4.8 Digital Resource Centre

The Library offers online network connectivity throughout the university and a well-equipped maintained computer lab with 100 computer nodes. This library offers access to the University's licensed and open access services. Also available in the Digital Resources Centre are CDs of IITians seminars, medical tutorials, reference papers, etc.

3.2.1.4.9 Research and Reference Section:

In this section, all the research tools are available in print form such as a dictionary, statistical sources, Calendars Show Yearbooks, Biography Census Report, etc. Many of the popular services are available online, too. The section in charge supervised and guides the users" how to search information and their tools.

3.2.1.4.10 Braille Section: It is a much-esteemed service for those users, who is physically disabled. The Maulana Azad Library's distinctive features that are Braille service. The differently-abled user can get the service, as per their need. The library has a

rich collection of Braille script books; there is also a wide range of digitalized format devices and documents quick available for them.

3.3.1 Banaras Hindu University, (BHU), Varanasi

3.3.1.1 about the university:

The Banaras Hindu University, one of India's old university situated in Varanasi's pilgrimage region, is a world-renowned temple of learning. Pandit Madan Mohan Malviya, the great scholar and national socialist leader, created this creative and progressive university in 1916, with the aid of wonderfully distinguished mindsets such as “Dr Annie Besant, who regarded it as the University of India. Banaras Hindu University was established Parliament Law-1915. The main campus area of the prestigious Central University is 1300 acres, from well-maintained roads, vast palm trees, a temple, an airstrip and architecturally stunning buildings”. “The university consisting of three Institutes, fourteen Faculties, one hundred forty Departments, four Interdisciplinary Centers, one constituent college for women, and three Colleges Constituent them, covering a wide scope of Themes spanning all arts and humanities, disciplines, innovation, medical, education, fine arts, and performing arts. This has six centers for specialist education, 10 divisions for special assistance services and a wide range of clusters for high tech research and development”. The 927-bed hospitals at the university are fitted with all the newest equipment. “The university operates a broad range of sports and recreational amenities, provides large playgrounds, an enormous auditorium, a flight club, and therefore many related admin facilities and sections including Publishing Press, Publishing Unit, Fresh Fruit Center, Canteens, Employment and Informatics Division, Security, etc. A Campus community constitutes of around 15,000 scholars of all walks of life, social groups and religions and races, about 1700 teachers and about 8,000 academic non-teaching staff”. A drastic number of foreign students such as the U.S.A., Asia, the mid-east, Europe etc.

3.3.1.2 about the library

BHU Central Library has the strongest library system in India. “With the initiation of P.K Telang Prof's small significant donated collection, with the beloved memory of his father justice K.T Telang. In 1917, the central Hindu college's Telang hall, Kamachha. In 1921, the library was transferred to the Arts College, central hall, after which, in 1941, a magnificent building was constructed with Maharaja Siyaji Rao Gaekwad's massive donations. With the recommendation of Pandit Madan Mohan Malviya, he built a library on the cadence of the British Museum. The library grew with a glorious prosperous family donation from eminent people such as Lala Sri Ramof, Bajaj of Wardha Jammalal, Roomal Goenka, Bakut N Sharma, Ravindra Nath Tagore, and Pandit Jawahar Lal Nehru, etc” other than acquiring some books, turn results in a collection of 60,000 volumes in 1931. The Banaras Hindu University Library reportedly has 13 volumes of lakhs available to assist the students. The central library is constituted of three institutional libraries, eight staff libraries, 25 departmental libraries. It represents faculty members, technical research personnel, and 126 university departments.

3.3.1.3 Library hours

BHU is open 359 days a year. The Library remains open 11 hours on the day of service for the length of Sunday for holidays it only becomes seven hours' work. The library was strongly dedicated to the students and used the full amount of their resources.

3.3.1.4 Library Collections

Library service has to fulfill the highest requirements of the university's educational research and development programs. The information resources including all assets have to mean for relevant for the University's proposed courses. The library has enough sufficient resources to support library users' demand for new documentation. Recently the library has 9, 76,411 books, new journals are 406 and there are 1, 33,792 available bound quantities of journals. The library has 11,272 e-journals/online journal facilities which they supplied to the users. Another esteemed set including manuscript 7,233 is also available in the library to support the BHU legacy. The UN & govt publication, rare

collection of staff publication, collection of university founder collection of local history is available as 3, 632. The library includes the PhD thesis 14,748. The library includes databases and e-books service.

3.3.1.5 Library Services

The central library service of Banaras Hindu University Sayaji Rao Gaekwad has been divided into the stages, first research facility inside the library "which has covered by the Journals, Books, PhD thesis, United Nations, and Govt publication, textbooks, e-resources database, reference books, etc. The second stage of service "study facility outside the library" the scholar has provided the lending facility for the home study through departmental study.

3.3.1.6 Sayaji Rao Gaekwad library Provide these services which are being listed below:

3.3.1.6.1 Information services; The central library provides the consortium services for academic scholars and students. The library has also subscribed to the DELNET and INFLIBNET Network for information enhancement and current awareness.

3.3.1.6.2 Reproduction / reprographic services: The library has a dedicated section to provide them with a very well-equipped photocopying machine, scanner portable equipment. A photocopy of the research papers and other books related material is accessible at very nominal rates to the scholars.

3.3.1.6.3 Internet Facility: Large setups for Teachers, researchers, and students have been developed. The internet facilities inside the library are very prominent. This facility is available to students & they can access the information resources, database and other relevant content.

3.3.1.6.4 E-Database and E-Journals: The SRG library subscribed to the UGC Consortium in the bunch of e-journals system. The library has also subscribed to about 4000 journals online and other relevant database. Without e-resources the library is like

without a roof. It has also include publication of American Chemical Society, Science Direct, MUSE Project, Emerald, Institute of Physics, Cambridge Univ Press, Springer lib, Institute of Physics, Chemical Abstract Biological Abstract, all of these databases are highly utilized by the researcher. The access is open to all campus users.

3.3.1.6.5 Electronic Paper Delivery Services: Information distribution system has been introduced by INFLIBNET in partnership with six certain libraries from central universities that are highly known for the advanced core collection and dedication for delivering prompt access of service. This can be meet user's data requirements through both the data/information supply network.

3.3.1.6.6 Research Assistant service: The BHU has a premier university system in India. The BHU library has one of the eminent research services systems. To avoid the duplication of research work and enhanced the research activity, they have brought some important tools to promote them. These tools are as follow them

3.3.1.6.7 Endnote web version with a web of science: This is the reference management tool. They can support the research work on in one platform.

3.3.1.6.8 Grammarly: They enlarge the writing system. They show the error while writing the content over them. They give us many options to rectify the writing style.

3.3.1.6.9 Turnitin: the plagiarism checker software has enhanced the research activity and avoids the duplication of work

3.3.1.6.10 Urkund: Another one the plagiarism checker software that has enhanced the research activity.

3.3.1.7 Library Staff: Sayaji Rao Gaekwad Library currently has 01 librarian in charge, deputy librarian 05, and assistant librarian 12, 01 information scientist, professional staff 14, semi-skilled staff, library staff 45, skilled and unskilled employees.

3.3.1.8 The membership of other Institution: The BHU central library Sayajiroa Gaekwad is a member of the Indian Library Association, which is the first organization to

concentrate on the professional library system in India. The Indian Organization of Special Libraries focuses on a special library network. The International Information and Documentation Federation is an international level of association with other library systems. International Library Association Federation IFLA has formally renounced library network membership. They are also the member of them.

3.3.1.9 United Nations Publication Depository library: The BHU Central Library has an on depositary section for UN publications. The scheme starts for the depository library without any charges from 1973, “The library gets to continue U.N. Publications and select transactions in the way of a savings bank membership from the library scheme”. It is a real library's distinctive attribute.

3.4.1 Allahabad University, Allahabad

3.4.1.1 about the university

Allahabad University took always an esteemed place among all the central university of India. It was established on 23rd September 1887. It is the four oldest universities in India after Madras, Bombay, and Calcutta University. The huge central college converted to Allahabad University, the credit goes to William Muir sir and the governor of the united nation (UN). As result become take position inspiration at the Muir central college named after him as laid on December 9, 1873, by esteemed personality Lord Northbrook. Between 1887 and 1927 Allahabad University was associated with at least thirty-eight different institutions and colleges throughout this region. The Muir Central College lost its autonomous life in 1921, with the promulgation of the Allahabad University Act. The University had its internal and external wings between 1922-27, which were subsequently removed from the University to give the latter a solely unitary and residential character. In reality, the University of Allahabad was launched with a government provisional loan of Rs. 5240/- with all expenditures. Within two years, the loans were paid. Henceforth that primary source of revenue came through Prospectus & Calendar's review fees and sales.

3.4.1.2 about the library:

The University of Allahabad central Library is starting a travelling on the path to change. It has implemented to reach the needs of the university students, researchers, & teachers. Not only does it help to develop the curriculum, but it also focuses on university-led research programs. The central library was developed from the Muir Central College library, Allahabad. The foundation stone was laid on 17th January 1910 by Sir John Hewett. The college library opened in 1916. The library boon was started in 1946 as “Dr S.R Ranganathan Father of library and information sciences in India”. The library movement grew, and the committee set up the library and its services for growth. Dr. Ranganathan sent the model of the library plan to the govt which was released the same year. The architecture of the plan covered areas such as library structure, manpower, financial instruments, and other important matters. The foundation of the Central Library was built in 1913–16. The new design of buildings was based on the tradition of modern library construction. It has been advocated by Darbhanga hall for 500 Graduate level reading spaces, 250 for in-ground arrangement, and 250 first floor. The graduate reading room for the research scholars has been split into more private cubicles. The existing building wasn't adequate to accommodate then after the beginning of the students so the new building was fabricated in 1973. The new library wing is much flexible and it's the capacity to expand more. The University of Allahabad was one of the oldest universities with strong historical interest and significant archival studies such as medieval history and early modern manuscripts and documents of Indian history. The manuscripts are located in a wide ventilated area. Within the library are some of the original farmers of the Mughal laws. A copy of the gold plated metal strips is available in a tripika written in Burmese scripts. The library has a wide collection of periods of Mughal and related material. LibSys software program is entirely configured in the library.

3.4.1.4. Library hours

The Central Library is open Monday to Saturday from all the working days between 8:00 am to 6:00 PM. On Sunday 10:00 a.m. to 6:00 p.m. during holidays, except for certain

national and regional holidays. (Republic day, Eidul Fitar, Independence days, Mahatma Gandhi birthday, Vijaya dashi, Diwali, Christmas.)

3.4.1.5 Library Collection:

Library service's play a basic and significant role in meeting the educational and research activity requirements. The University of Allahabad is dedicated to serving students; they have a large range of books, e-resources, and databases. They have fifty thousand nine hundred eighty-three books with seven lakhs. The 19118 PhD theses on research optimization are available in both hard and soft versions. The data-based thesis was prepared for us by the scholars, and 20000 books were also made. Digitization of the manuscript is underway. With the cooperation of IIT Allahabad, 30000 books have been digitized under the UDL govt ventures. They do have a large range of e-resources such as e-books 2564, another selection of appreciations like current e-books newspapers are 268 different territories; online journals 24375 are available to access a university server. The 14 online databases are available, and the latest famous magazine is also subscribed.

3.4.1.6 Library services: Allahabad University central library has given different types of services as follows:

3.4.1.6.1 Reference Service: An information "how to use it" without guidance, the laws of library and information science are omitted. The central library has a large collection of information services that improve the knowledge skill of the scholars. The approximate manuscript collection has been of great benefit for research purposes to the scholar those who are skilled in the knowledge of their subjects. A dedicated reading area with a reference desk is accessible in the Central Library. The reference service is one of the old and important conventional services but now, due to the huge source of information databases, the trend becomes strong one day.

3.4.1.6.2 OPAC: Public online information access is a method for searching for information or data that is accessible in databases. The central library has all the

information services at OPAC fully automated. It helped the scholars to collect the book or other related material in a designated location or shelf.

3.4.1.6.3 Circulation: It's a really important and essential library service. The central library has a circulation desk where the student can get the books released as per the rules and regulations on university libraries. The issue book subject mostly depends on the students, priorities and academic scholars needs. The identification card is important for the students at the circulation desk, some have a single card system in the library and several more systems have been built from the safety point of views.

3.4.1.6.4 Reprographic Services: Reproduction of information without violating the rules regulating copyright. The copying of the papers or other items for scholars, this service is really useful for them. Photocopying is a form of making copies of books or any other reading materials. The method is a very useful tool to the users of the library.

3.4.1.6.5 Consultation: This is important to us as the names describe the consultation to something and understand the essence of the subjects. The central library offers this service to students, and if they need it. This is also a very valuable facility for students and teachers.

3.4.1.6.6 Membership: The Central Library of the University of Allahabad is available to all who are graduates, teaching and non-teaching staff and research scholars granted membership. Other people also get the membership as per the policy and administration.

3.4.1.6.7 Book Reservation: It is an ideal scholarly service. Book reservations, determines the keep the reserve of the book for those who want to avail the services. If the previous borrower returns the book, it will be set aside for you and you'll be given an e-mail that allows you to retrieve the book at the information desk of the library.

3.4.1.6.8 Inter Library Loan: It is a very popular scholarly operation. If the library does not have the documents/information available, the documents/information will be made available to scholars based on this service.ILL is a good practice between participating

libraries, which conclude agreements with each other to share materials to improve their collections.

3.4.1.6.9 Internet facility for online access of e-resource: The central library of the University of Allahabad have a well-equipped computer facility with high internet speed with LAN for the scholars, and some computers are separate for the research scholar to enhance their ability in the subject field. The central library has received services from a separate area for ICT development and enhancement. These resources are capable of enhancing both their expertise and deep subject material. There are numerous resources such as direct science, tad online, emerald, online sage, EBSCO host, etc. These tools were used in a wide range of subjects. The scholars can access them by signing in, and the teachers and scholars can also use the remote login facility. Besides, the library has also subscribed to e-databases such as J-Gate, MathSciNet, Science Online, Scopus, ISID, and several more are available in the library, and they do have access to e-book facilities such as Springer's, Wiley's, Person's, and Elsevier's. The library provides a wide range of outlets.

3.4.1.6.10 SDI and CAS: The central library provides selective dissemination of information service (SDI) with limited distribution. It is a form of service that alerts. This service is tailored for those students who need special information on the subject. The current CAS service helps to provide the latest information on a given subject with up-to-date information. It will help the scholars search the literature, save the user's time, and encourage and endorse the library services in a very important way. Both facilities are opportunities of great significance.

3.4.1.6.11 Access of E-Resources: The central library offers e-resources from various domains. They subscribed to a wide number of resources to improve their expertise for scholars.

3.4.1.6.12 UGC E SodhSindhu e-journal: It's like consortia coming together or a bunch of resources. They have access and subscribe to the American Institute of Physics,

American Chemical Society, Annual Review, Economics, Political Weekly and American Physical Society, J-STOR, Springer connection, Oxford University Press, and Taylor and Francis. Each of these is an excellent instrument for elevating the awareness of the group of scholars. They access and subscribe to the eBooks portal of the world e-book library.

3.4.1.6.13 Remote access: “Remote access is the ability of an approved person to access a computer or a network over a network link from a geographical distance”. Remote access helps users to communicate while they are physically distant from the devices they need.

3.4.1.6.14 Plagiarism detection: A plagiarism detection software service is provided at the central library. It is a very essential service for users. Especially those who are doing research, that must be required to avoid duplication of research work. It can increase the ability of thought and the ability to write, which a very significant role play in today’s scenario.

3.4.1.6.15 Seminar/ Conferences/ Workshop: The central library has held seminars, conferences, and workshops from time to time. The Central Library supports and improves its programs. They also arranged the display of books to support their activities. It will demonstrate that the library's professional staff is prepared to foster a welcoming environment for the inclusive promotion of their services and resources.

3.5.1 Baba Saheb Bhim Rao Ambedkar University, Lucknow

3.5.1.1 about the university

The Babasaheb Bhim Rao Ambedkar University was established by an act passed by the parliament. The university was started into functioning on 10.01.1996 vide Govt of India Ministry of HRD department. The University's fundamental principles or practices are set out and ingrained in the Constitution and Laws of Universities. The University provides graduate and postgraduate and postdoctoral program with the skills of learning and getting the advanced knowledge necessary to succeed as individuals and specialists to

access to find, and with the ideals and responsiveness needed to support society. The University stands out as a socially conscious learning environment of strong-quality education and intellectual integrity, guided by the values of equality and fairness to which Babasaheb Bhimrao Ambedkar worked throughout his lifespan.

In particular, their university teaches students from the agricultural mainland of Uttar Pradesh, and all aspects of India in specific, who often comes from oppressed segments for leadership in a complicated world.

“It provides a certain kind of skills required through numerous inclusive, community-oriented programs to transform our country into the domains of – Humanities and social sciences, Engineering, Agriculture, Biotechnology, Business, Law, Education and Environmental Sciences through a wide range of prestigious education programs that give learners the freedom to develop their cognitive and personal development. Our University dedicated to conscientiously embrace their duties, share leadership in a spirit of democracy and is subject to the highest level of social confidence”.

3.5.1.2 about the library

With the philosophy and ideology view of “Baba Sahib the Babasaheb Bhimrao Ambedkar University (BBAU) has established, Lucknow, the Central Library was established in January 1998 to provide value-added service towards the community and promote education and innovation by effectively disseminating knowledge and experience”. BBAU's Central Library is named after the name of Lord Gautam Buddha as Gautam Buddha Central Library. The library is administered by the Advisory Committee on Libraries. The LAC is the apex government-making body that operates under the vice-chancellor's presidency. The library serves as the University's academic learning centre to support the faculty and students' educational and information needs. The Library has played an important role in creating, maintaining, or sharing its information for education and science. It provides knowledge and skilled facilities and amenities to reach the teaching, educating, and research requirements. The Library

seating room is for over 300 visitors at a time. The library facilities are available to employees and other staff throughout the University.

3.5.1.3 Library Hours: The Gautama Buddha Central Library is open all working days from 8:00 am to 8:00 pm, but on Saturday it remains from 9:30 am to 6:00 pm. The library has a separate reading room facility available from 8:00 AM till 10:00 PM.

3.5.1.4 Library collection:

The Bhim Rao Ambedkar University Central Library as the Gautam Buddha Central Library, after Lord Gautam Buddha Bhagwan, was named. The library plays a key role in preserving and disseminating information for the educational fraternity and the research. The central library boasts a large collection of books from different domains. The library area is 7917 SQ.M. The books for the collection are covered from literature to language total books are 54, 185. The library has a wide selection of magazines and newspapers printed by online and offline journals. To enhance the research activity the library has a thesis and dissertation online as well as offline for their scholars. The library is replete with ICT assets and relevant materials. A separate section also contains the rich collection of Baba Sahib Books.

3.5.1.5 Library services: Gautam Buddha central library (BBAU) has given different types of services as follows:

3.5.1.5.1 Reprographic Services: The GBL provides its scholars with photocopying facilities. When some scholars need a copy of any material without breaching the laws of copyright, they can get it with very nominal fees.

3.5.1.5.2 Circulation Service: It's very necessary and key to the service of any university system. User registration must be required for this service, and students will have to follow the library policy. As per library policy, the user can get the book or other resources. The rules on borrowing for graduate, undergraduate and scholars are different. This service is available to students, teachers, and staff.

3.5.1.5.3 Documents Delivery Service: It is a request-based service if scholars want to access some information/documents from them, can send them directly or indirectly to the scholar's email address / e-main / sent to library users.

3.5.1.5.4 Remote Access: A remote access program, known as a remote access server, connects a client to a host machine. This facility will improve library service, without a wall, we will claim library access. The GBL library can access online e-resources. The GBL has subscribed to the online services through e-SodhSindhu and from the publishers. The Off-Campus Access program is made available to faculty members to access the registered academic online services conveniently from outside the university campus.

3.5.1.5.5 E-mail Alert Service: It is a very highly respected service for scholars and at this time needs this type of service to promote library activity and support. It can secure the time of the scholars as well. For every user, the central library generates one e-mail Id for having the article and reserving any information, books or documents. The central library has a facility of one common email for any communication purpose i.e. centrallibrarybbau@gmail.com.

3.5.1.5.6 E-Resources Access Services: The GBL subscribed to scholars with a large number of resources. The essence of e-resources is focused on underway university courses. Using Wi-Fi enabled internet, an e-resources access facility has provided to the University Library user via the Library's Cyber branch.

3.5.1.5.7 Reference Services: The University has offered a specific service called Reference Service. Due to the emergence of ICT, the pattern of Reference Service has change into a fast tact. The reference service for technical development eases access and save the scholar's time. This facility has also promoted the library service and efficiency of professional staff.

3.5.1.5.8 Research Floor: This service commenced for the research scholars and university faculty members. An outsider can also be avail, but permission and are highly

required for the same. This section currently has a total capacity of 30 members at a time. The section is opened on all working days until 11:00 PM.

3.5.1.5.9 Topper's Corner: This service is by its very design exclusive. Students' response sheets, which are the topper in their department, are kept in this section for library patrons to review. Over the journey of the year, over 750 people used the service.

3.5.1.5.10 New Arrival Service: In this section, the library has a new arrival section anytime new material like a book, a novel, newly published work, comes into the library. The new arrival section showed the content or cover of the new content, so that the user may know the newly added resources.

3.5.1.5.11 Faculty Publication service: For scholars and academic communities, it is an inseparable service. The service will encourage publishing activity and emphasis on real research works. This facility is devoted to the University Faculty and staff, where they can showcase their research publications. During the year, more than 50 papers comprising book chapters have been shown in the section.

3.5.1.5.12 Plagiarism checking service: The Library is part of INFLIBNET's 'Shodhganga' project. Under this project, the Central Library was given the plagiarism checking software (i.e. Urkund) facility. The Central Library has plagiarism checker software and users can avail of the service as per their need. To avoid duplication of work, it is required services for each university to encourage real research work.

3.5.1.5.13 Hindi Prakosth service: The library has also expanded its services in the form of 'Hindi Prakosth', which promotes the Hindi book collection. Hindi is our mother tongue; the library should promote the use of the Hindi collection and encourage us to use it at the highest level.

3.5.1.5.14 Old Question papers: It's a very strong university initiative; the library collects the old question paper and digitalized it into an accessible format for the students' reference use. Students can get this paper via an online portal or e-mail service.

3.5.1.5.15 Braille Facility: The GBL has a special section of the "Braille" in this facility the users who is visually disabled and have poor vision. With the help of Braille hardware and software, the content is being available for them. The differently-abled people have a very specific need and demand.

3.5.1.6 Library Staff: The GBL has 01 university librarian, 02 Assistant librarian and 09 permanent professional employees, and 10 employees outsourced for professional work.

Within this chapter, we present the university's concept and its section on growth within different fields. The structure and arena of the university library system and the specific description of the library services under study are also discussed.

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CHAPTER-4

DATA ANALYSIS AND INTERPRETATION

	Part-A
4.1	Quality Services Management - Analysis of librarian's Survey
	Part- B
4.2	Quality Services Management - Analysis of users survey (LibQual+TM tool analysis)
4.2	General Information
4.3	Library Usage Pattern
4.4	User's perception about Library Staff, Resources, Services, and Infrastructure (LIBQUAL Tool)
4.5	Hypotheses Validation

Chapter Overview

The data analysis and interpretation have been done with the help of tabulating an excel sheet. The detailed structured questionnaire has been created and emailed to each university and sent by speed post. The questionnaire has been divided into six parts, namely: 1. General Information; 2. Library Users, Staff, Resources, Services, Infrastructure; 3. Usage of Library Services and Resources; 4. Use of ICT in Performing Library tasks/activities/Services; 5. User awareness /Education programs; 6. Librarian's Satisfaction Level Regarding Library Facilities And Constraints in Providing Quality Services. The investigator distributed the questionnaire to all four universities and received all completed questionnaires with the essential information.

Part-A

4.1: Analysis of Librarian's Survey

This section discusses about the detailed analysis of the university's librarian survey. The analysis includes responses and perception about of university librarian. Table 1 shows the results of the analysis.

4.1.1: General Information about the Universities

Table 4.1.1 Information about the Universities

About the University		Name of the Universities			
		(AU) University of Allahabad, Prayagraj	(BHU) Banaras Hindu University, Varanasi	(AMU) Aligarh Muslim University, Aligarh	(BBAU) Baba Saheb Bhimrao Ambedkar University, Lucknow
1.	Year of Establishment	1887	1916	1920	1996
2.	Number of courses	99	140	200+	68
3.	Total Number of faculty	863	2000	2100	175
4.	Total Number of students	18571	32000	24082	2650
5.	NAAC points and Grade	A+	A+	A+	A+

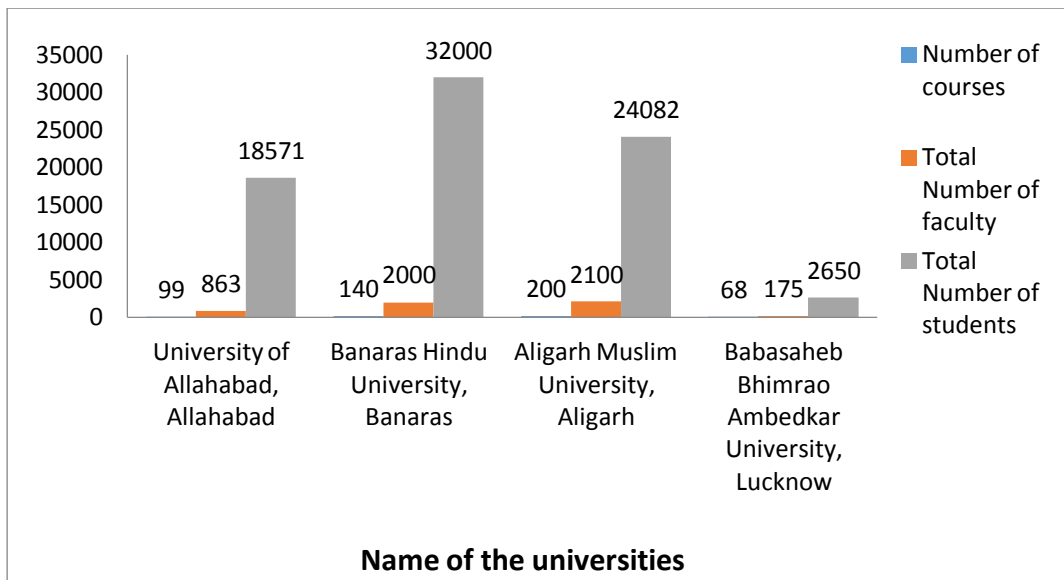


Figure -4.1.1 Information about the Universities

Table and figure 4.1.1 shows that AU Allahabad University was founded in early 1887, whereas the BHU Banaras Hindu University, Varanasi & AMU Aligarh Muslim University, Aligarh was founded in 1916 to 1920. Babasaheb Bhimrao Ambedkar University, Lucknow, was established in 1996. Many courses are offered in all four universities; however, the AMU is one of the top universities among the three major universities in terms of course offerings. According to the data, AMU has the most faculties. In contrast, BHU has the second-highest number of faculties, AU University has a respectable amount of faculties, and BBAU has a very small number of faculties. The top-level registered students are available in AMU, second number BHU, third number AU, and the last one has BBAU. All four central universities completed the NAAC accreditation procedure, and they all received an A+.

4.1.2: Details description of the number of registered users in the university library

Table- 4.1.2 Details of the registered users

Users details		Name of the University			
		AU	BHU	AMU	BBAU
1	Total Number of Registered faculty	863	1500	1623	160
2	Total Number of Registered Students	18571	17000	39367	2450

Table 4.1.2 shows that the highest 39000+ library membership has been registered by the Maulana Azad Library of Aligarh Muslim University, besides that BHU Banaras Hindu University, Maharaja Sayaji Rao Gaekwad Library has also been registered a good number of students. The highest 1600+faculty members registered in AMU Aligarh Muslim University, MA Maulana Azad library besides this besides that BHU Banaras Hindu University, Maharaja Sayaji Rao Gaekwad Library has also been registered a good number of faculties.

4.1.3: General Information about the university library

Table- 4.1.3 Information about the university library

About the library		Name of the University			
		AU	BHU	AMU	BBAU
1	Working hours of the library Monday –Friday Weekend (Saturday) Sunday & Holidays	8 AM to 9 PM 10 AM to 6 PM	9 AM to 9 PM 10 AM to 9 PM	8:AM to 2:00 AM (midnight) 24*7 open	9 AM to 8 PM 9:30 AM to 6 PM Closed
2	Nature of Library Building	Separate	Separate	Separate	Separate
3	Total Area of Library	8539 sq. ft	9000 sq. ft	12000 sq. ft	7917 sq. ft

Table- 4.1.3 shows that all four libraries have been open 8: am to 9: pm, but Maulana Azad library has been open at the midnight 2:00 am. It is also found that they have a central located separated building with sufficient space.

4.1.4: Staff details of University Libraries

Table -4.1.4 Staff details of University Libraries

Designation		AU	BHU	AMU	BBAU
1.	Librarian	01	01	1	1

2.	Deputy Librarian	No	7	4	Nil
3.	Assistant Librarian	04	06	22	2
4.	Information Scientist	01	0	1	Nil
5.	Professional assistant	00	23	43	2
6.	Sr. library assistant	00	33	43	Nil
7.	Jr. Library assistant	00	10	00	3
8.	Library attendants	11	10	56	1
9.	Clerks	19	7	4	1
10.	Data entry operators	03	9	1	4
11.	Cleaners/sweepers	02	10	1	4
12.	Security guards	4	5	10	3
Total		45	121	186	21

Table 4.1.4, depicts the profile of library staff for four central universities. AU and BBAU have a position vacant for deputy librarian; AMU and BHU have the largest number of Assistant librarians. Found that M.A Maulana Azad Library has maximum professional staff, followed by the Sayaji Rao Gaekwad Library, BHU, Allahabad university library, AU, and Gautam Buddha library, BBAU. The lowest numbers of professional staff are available in Gautam Buddha library, BBAU. The other Non-library professionals, clerical staff, and housekeeping personnel work in the majority of respondent libraries.

4.1.5: Availability of infrastructural facilities in the library

Table 4.1.5 Infrastructural facilities in the library

Infrastructural facilities	AU	BHU	AMU	BBAU
-----------------------------------	-----------	------------	------------	-------------

1.	Reading area	Yes	Yes	Yes	Yes
2.	Digital section	Yes	Yes	Yes	Yes
3.	Periodical section	Yes	Yes	Yes	Yes
4.	Reference section	Yes	Yes	Yes	Yes
5.	Textbook section	Yes	Yes	Yes	Yes
6.	Study carrels	Yes	Yes	Yes	Yes
7.	Discussion rooms	Yes	Yes	Yes	Yes
8.	Multimedia section	Yes	No	No	No
9.	Seminar room	Yes	No	No	No
10.	Air-conditioners	Yes	yes	Yes	No
11.	Water coolers	Yes	No	Yes	Yes
12.	Washrooms	Yes	Yes	Yes	Yes
13.	Study Chairs & tables	Yes	Yes	Yes	Yes
14.	Book shelves/Racks	Yes	Yes	Yes	Yes
15.	Book trolleys	Yes	Yes	Yes	Yes
16.	Lifts	Yes	No	Yes	Yes
17.	Staircases	Yes	Yes	Yes	Yes
18.	Ramps	Yes	Yes	Yes	Yes
19.	Lighting & Ventilation	Yes	Yes	Yes	Yes
20.	Library guide map	Yes	yes	Yes	Yes
21.	New arrival display	Yes	yes	Yes	Yes

22.	Notice boards	Yes	Yes	Yes	Yes
23.	Baggage Counters	Yes	Yes	Yes	Yes
24.	CCTV surveillance	Yes	Yes	Yes	Yes
25.	Power back-up	Yes	Yes	Yes	Yes
26.	Emergency exit	Yes	Yes	Yes	Yes

Table 4.1.5 presents the university library's library users' infrastructure facilities. All the university libraries provide essential and basic infrastructural facilities to their users. These facilities include the Reading area, a Reference section, Digital section area, Journal and magazines new arrival display area, circulation desk, Notice boards, baggage Counters, Adequate Study Table & Chairs, etc. The library users' multimedia section and discussion room are only available in the Allahabad university library. Only AMU, AU, BBAU libraries have centrally air-conditioned facilities available for their users.

4.1.6: Availability of print & electronic resources in the university libraries:

Table-4.1.6 Details of print & electronic resources

Print & Electronic Resources		AU	BHU	AMU	BBAU
1.	Books	732607	1133415	1381782	60000
2.	Journals & Magazine	268	332	515	170
3.	Newspapers	22	20	19	23
4.	Theses & Dissertations	19555	15487	11873	3500
5.	Reference books	12000	13000	15000	7000
6.	Rare documents	11000	35000	14000	No
7.	CDs/DVDs	5000	635	30000	1000
8.	Project Reports	2567	Yes	Yes	150
9.	Bound volumes of journals	4567	137467	25000	1000
10.	Maps/Atlas	Yes	yes	yes	No

11.	Standards	Yes	yes	Yes	Yes
12.	Manuals/Guidebooks	Yes	Yes	Yes	No
13.	E-journals	18648	16000	2137	9000
14.	E-books	2741	57097	1325	3000
15.	Subject guides	Yes	Yes	Yes	No
16.	Databases	12	10	25	15
17.	Library OPAC	2	9	10	3
18.	Digital repository	01	02	02	1
19.	Manuscript	3256	7233	16117	No

Table and below figures 4.1.6 show the print and electronic resources of the respondent's university libraries and their status available on 30/08/2021. The highest total number of 1381782 print books available in Maulana Azad Library followed by 1133415 Sayaji Rao Gaekwad's Library and 732607 printed books from Allahabad University library. The Gautam Buddha Library has the lowest collection of print books. The analysis data shows that subscribed maximum level of the print journals and magazines 515 at Maulana Azad Library followed by 332 Sayaji Rao Gaekwad's Library and 268 Allahabad university library; the Gautam Buddha Library subscribed the lowest number of print journals and magazines. It is observed that the highest number of thesis and dissertations are available in Allahabad University Library. The study identifies that all libraries have good reference books and project reports collection. The highest 30000 CDs/DVS are available at Maulana Azad library followed by 5000 Allahabad university library, 1000 CDs/DVDs available in Gautam Buddha library. The lowest number of CDS/DVDs available is Sayaji Rao Gaekwad Library. The highest 1,37,467 number of a print-bound volume of the journal are available Sayaji Rao Gaekwad Library followed by 25000 Maulana Azad Library, 4567 number of a print-bound volume of the journal are available in Allahabad university library, and lowest hardbound of volume journal are available in Gautam Buddha library. All libraries have a good number of Electronics resources like e-books, e-journals, and e-databases. A maximum number of 73107 electronic

databases and e-resources are subscribed by the Sayaji Rao Gaekwad Library, followed by 21401 Allahabad university libraries. The highest numbers of rare documents are available in Sayaji Rao Gaekwad Library, whereas the Maulana Azad Library and Allahabad University also have a good number of rare documents available. Major respondent libraries have a good number of digitalization of the resources. The highest number of (i.e.16117) digitalized resources are available in Maulana Azad Library, followed by 7233 digitalized resources by the Sayaji Rao Gaekwad Library, 3256 digitalized resources by the Allahabad university library, and Gautam Buddha Library has no digitalization of rare resources. The print and electronic resources are also shown in the form of figures below:

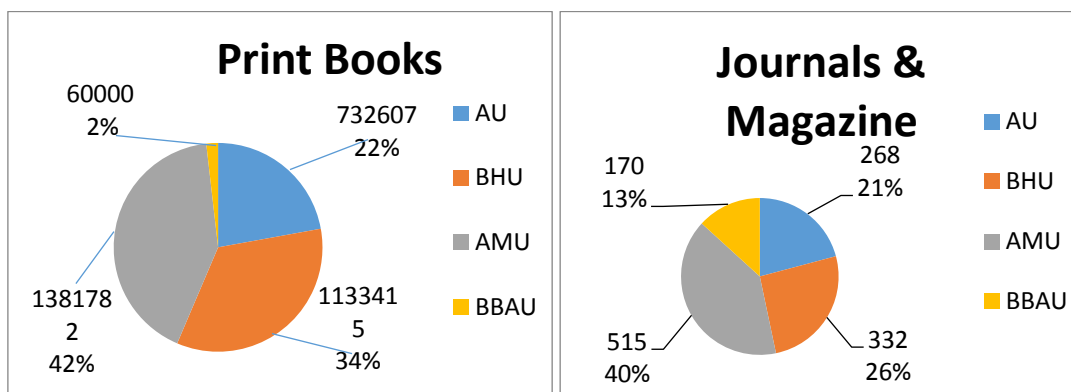


Figure 4.1.6A: Availability of print books **Figure 4.1.6B: Availability of print periodicals**

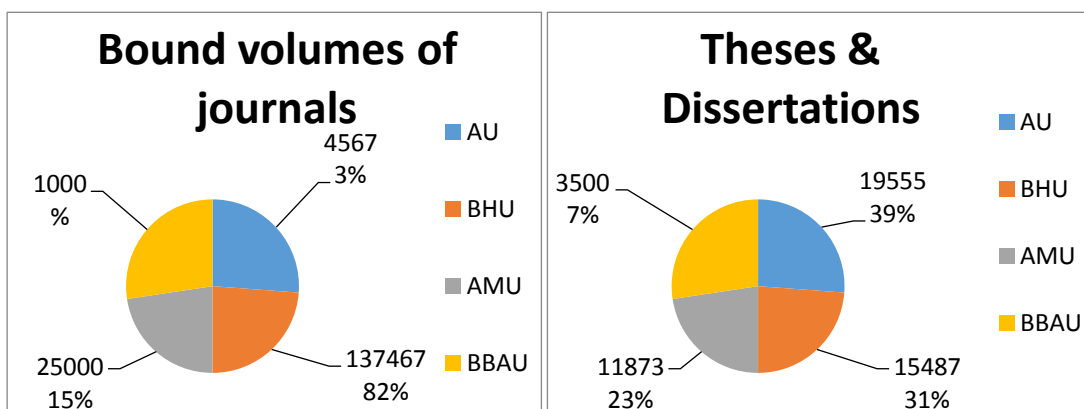


Figure 4.1.6 C: Availability of bound volumes **Figure 4.1.6 D: Availability of theses & dissertations**

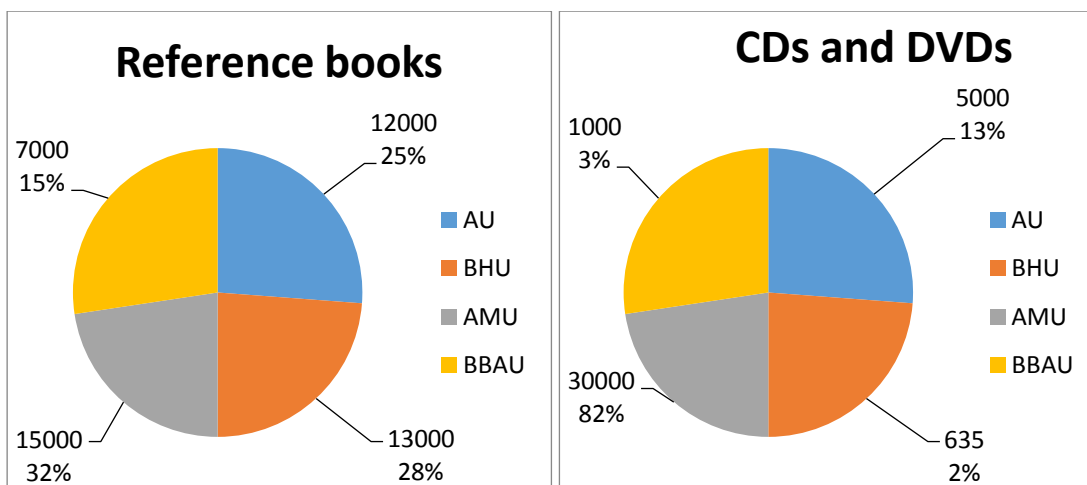


Figure 4.1.6E: Availability of reference books Figure 4.1.6F: Availability of CDs/DVDs

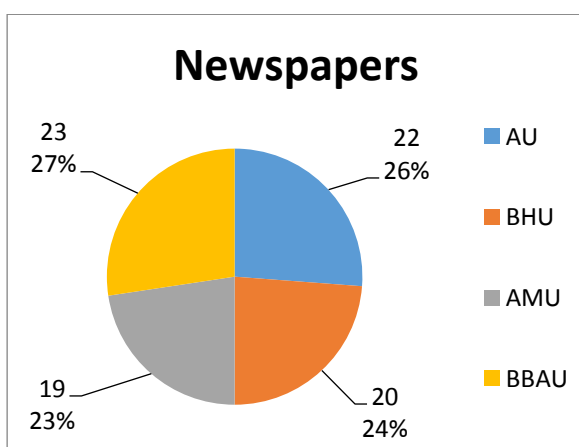


Figure 4.1.6G: Availability of reference books

Table 4.1.7: Services offered to the library users

Library services		AU	BHU	AMU	BBAU
1.	Circulation services	Yes	Yes	Yes	Yes
2.	Reference service	Yes	Yes	Yes	Yes
3.	Referral service	Yes	Yes	Yes	Yes
4.	Digital reference service	Yes	Yes	Yes	Yes
5.	Content alert Service	Yes	Yes	No	No

6.	Conference alert service	Yes	Yes	No	No
7.	Newspaper clipping service	Yes	Yes	Yes	No
8.	Online/offline catalogue	Yes	Yes	Yes	Yes
9.	Indexing & abstracting service	Yes	No	Yes	No
10.	Bibliographic services	Yes	No	Yes	No
11.	Research support service	Yes	Yes	Yes	Yes
12.	Inter Library Loan service	Yes	Yes	Yes	Yes
13.	User awareness service	Yes	Yes	Yes	Yes
14.	Reprographic service	Yes	Yes	Yes	Yes
15.	Any other services	No	No	No	Yes Toppers corner

Table 4.1.7 demonstrates the services provided by all four central university libraries. On the whole, it can be said that most libraries offer essential and highly innovative services to their patrons. It is revealed that all the libraries provide basic and essential services to the users, which includes Circulation services, reference services, Digital reference service, Research support service, IIL Inter-Library Loan service, UAS User awareness service, Reprographic service, photocopy and printing, online database access, internet services, and library orientation services to the new users. Indexing and abstracting services are provided only at Allahabad University Library and M.A Maulana Azad Library (AMU) Aligarh Muslim University. The Allahabad University Library and AMU Aligarh Muslim University Maulana Azad library provide Bibliographic services. Except for Baba Saheb Bhim Rao Ambedkar University Gautam Buddha library, all their libraries provide newspaper clipping services. The

content alert services are offered only by Maharaja Sayaji Rao Gaekwad Library and Allahabad university library. Only Baba Saheb Bhim Rao Ambedkar University Gautam Buddha library provides other services named toppers corner.

Table 4.1.8: Availability of ICT infrastructural facilities and services in the university libraries

ICT infrastructural facilities		AU	BHU	AMU	BBAU
1.	LAN	Yes	yes	yes	yes
2.	Wi-Fi	Yes	yes	Yes	yes
3.	Total no of computers	251	452	451	50
4.	Printers	12	15	21	10
5.	Scanners	9	10	8	3
6.	Photocopy machines	3	3	3	2
7.	Status of Library Automation	Yes	yes	yes	yes
8.	Name of the library Automation software (LMS)	LibSys	Soul	LibSys	Koha
9.	Software used for digitalization	Dspace	Dspace	E-print	Dspace
10.	Digital objects available in library	Thesis, Dissertation, Project report, Books articles	Thesis & Books	Thesis, Dissertation, Project report, books	Thesis, Dissertation, Project report, Question Papers, Faculty publication
11.	Online catalogue	Yes	Yes	Yes	Yes
12.	barcode reader	Yes	Yes	Yes	Yes

13.	RFID available	No	No	No	No
14.	Library website	Yes	Yes	Yes	Partially
15.	Remote access of E-resources	Yes	Yes	Yes	Yes

Table 4.1.8 shows the ICT application implementation at all four central universities. All four libraries have fully automated using library-integrated software. The AU Allahabad university library and AMU Aligarh Muslim University Maulana Azad library use LibSys software, while BHU Banaras Hindu University Maharaja Sayaji Rao Gaekwad Library is using SOUL and BBAU Baba Saheb Bhimrao Ambedkar University; Gautam Buddha Library is using open software KOHA. The highest numbers of computers are available in AMU Aligarh Muslim University Maulana Azad Library and BHU Banaras Hindu University Maharaja Sayaji Rao Gaekwad Library. All four university libraries have Web OPAC for their users. All four universities are providing high-speed internet facilities with LAN and wifi both. Most universities use Dspace software to digitalize the resources, including digital cameras and digital scanners; the documents include thesis, projects report, faculty publication, question papers, etc. The remote access facility for e-resources is available in all four university libraries. None of the universities use an RFID system for users; all the circulation has been through the barcode. All four universities are partially updated their library website.

Table 4.1.9: Usage of Library services during last year in the respondent's university libraries

Usage of Library Services		AU	BHU	AMU	BBAU	
1.	Reference queries	Electronic	1256	4562	53541	200
		Manual	Nil	2172	Nil	500
2.	*CAS/SDI plagiarism	Electronic	2689	5000	4057	300
		Manual	Nil	NIL	Nil	800

3.	User visits	18039	379500	275770	80000
4.	Usage of Digital repository resources centre	34562	446545	14494	19000
5.	Books circulated	60458	51378	33386	90500
6.	*Interlibrary Loan requests	26	100	85	200
7.	Referral services	2546	7,171	53541	500
8.	E-journal usage	2658	2500	138933	16089
9.	E-databases usage	2562	2800	352015	8000
10.	Use of online catalogues	3569	45500	28050	30000
11.	Use of Library webpage (no of visit)	808786	295848	458695	2506276
12.	E-mail alert services provided	1256	1913	2500	500
13.	E-resources accessed remotely (off-campus)	1689	2800 approx	1305762	Nil

**data taken from an annual report*

Table 4.1.9 represents the yearly statistics of all four universities respondents' university libraries. It is observed that the highest online reference queries have been received by the M.A Maulana Azad Library AMU, followed by Sayaji Rao Gaekwad Library BHU, Allahabad university library AU, and Gautam Buddha library BBAU. The highest number of information services users used by Sayaji Rao Gaekwad Library, BHU, followed by the Maulana Azad Library AMU, Allahabad University library AU, and Gautam Buddha library BBAU. The maximum daily transaction is found at the M.A Maulana Azad Library. A maximum number of digital library resources center usage by the Sayaji Rao Gaekwad Library BHU followed by the Gautam Buddha library, BBAU, Allahabad university library, AU, and the Maulana Azad Library, AMU. The highest number of books issued by the Gautam Buddha library, BBAU, followed by the Allahabad university library, AU, Sayaji Rao Gaekwad Library, BHU, and Maulana Azad Library, AMU. The average number of daily users visited was recorded at the highest by the Maulana Azad Library, AMU. It

is observed that the highest number of e-resources usage by the M.A Maulana Azad Library, AMU followed by the Gautam Buddha library BBAU, Sayaji Rao Gaekwad Library, BHU, and Allahabad university library, AU. The Sayaji Rao Gaekwad Library BHU recorded the highest usage of library OPAC. It is observed that the highest number of email alert services given by the M.A Maulana Azad Library, AMU followed by the Sayaji Rao Gaekwad Library, BHU, Allahabad University library, AU, and Gautam Buddha library, BBAU. Maximum usage of remotely access resources by the Maulana Azad Library, AMU. The Gautam Buddha library, BBAU, received the highest interlibrary loan request.

Table 4.1.10: Library Expenditure (INR) during the last four year

Sessions	AU	BHU	AMU	BBAU
<i>Library Resources</i>				
2016-2017	6200000.00	5268648.00	22000000.00	5600000.00
2017-2018	6900000.00	51609148.00	22000000.00	3500000.00
2018-2019	6500000.00	3929653.00	23000000.00	6800000.00
2019-2020	8900000.00	32831740.00	<i>Not Available</i>	7900000.00
<i>Library Services</i>				
2016-2017	4000000.00	47422451.00	1200000.00	2400000.00
2017-2018	4200000.00	52763675.00	1200000.00	1500000.00
2018-2019	3900000.00	24518694.00	1200000.00	2800000.00
2019-2020	5200000.00	30401740.00	<i>Not Available</i>	4500000.00
<i>Library's ICT-based services</i>				
2016-2017	6000000.00	31200182.00	8400000.00	3500000
2017-2018	74000000.00	27894755.00	8200000.00	3600000

2018-2019	7800000.00	13928793.00	7900000.00	6500000
2019-2020	8200000.00	19098337.00	<i>Not Available</i>	8100000
<i>Library Infrastructure Facilities</i>				
2016-2017	2900000.00	407776.00	2434000.00	3500000.00
2017-2018	2500000.00	353299.00	2434000.00	1800000.00
2018-2019	2800000.00	466200.00	2434000.00	3900000.00
2019-2020	2400000.00	2452500.00	<i>Not Available</i>	4500000.00
<i>Total Budget</i>	<i>152400000</i>	<i>344547591</i>	<i>102402000</i>	<i>70400000</i>

The above-cited table and figure 4.1.10 show the information gathered about the annual budgets of the libraries under the study. They provide library expenditure of each asset of all four universities past four-year data except Maulana Azad Library, AMU got three-year report only. All four universities have received the combined expenditure for books, print journals, and magazines e-resources. All universities have given brief expenditure reports with segregation of each assist.

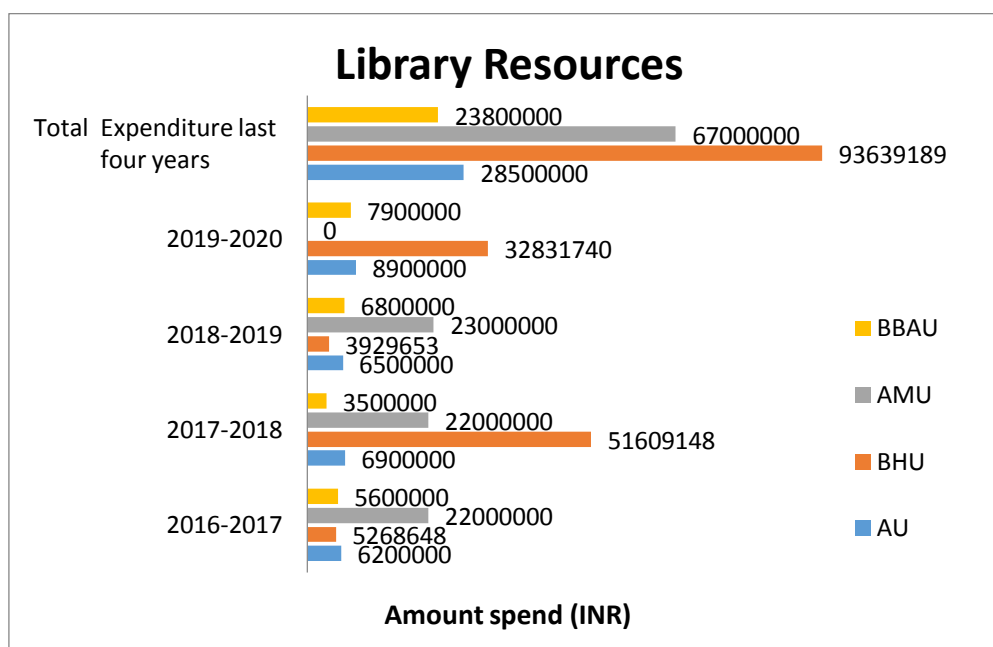


Figure 4.1.10: Library Expenditure (INR) during the last four year

From the above table and figure 4.1.10 reveals that The Sayaji Rao Gaekwad Library, BHU has spent the maximum amount for the procurement of library resources which includes books, journal magazines, and electronics resources, followed by M.A Maulana Azad Library AMU, Allahabad university library AU, and Gautam Buddha Library BBAU. The second-largest amount was spent by the M.A Maulana Azad Library, AMU, in the year 2016-to 2019.

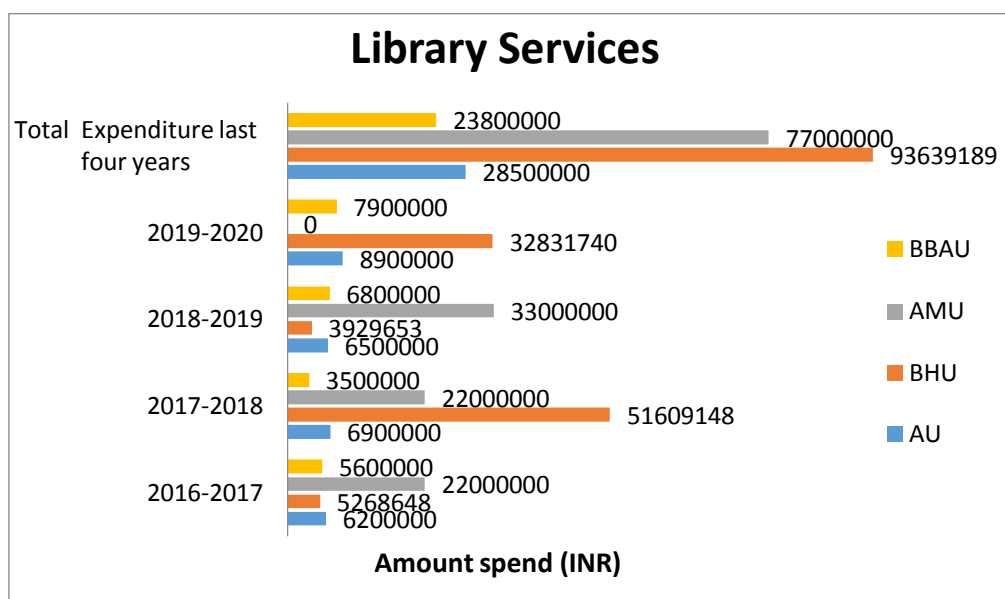


Figure 4.1.10.1: Expenditure on services

The above figure, 4.1.10.1 depicts the last four-year expenditure on library services. It is observed that the Sayaji Rao Gaekwad Library has spent a maximum amount, BHU, followed by the Maulana Azad Library AMU. The Maulana Azad Library, AMU, and Sayaji Rao Gaekwad Library, BHU, the second-largest amount, were spent in the year 2018-2019.

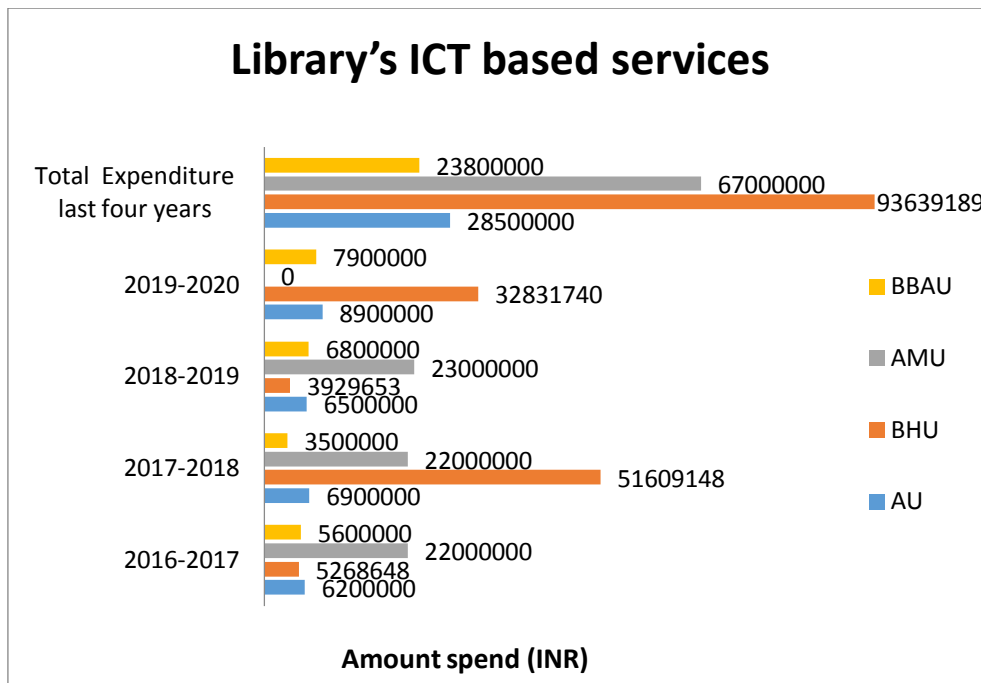


Figure 4.1.10.2: Expenditure on ICT based services

The above figure, 4.1.10.2 shows that the last four-year expenditure is based on library services year. It is observed that the most significant amount spent with its based service by the Sayaji Rao Gaekwad Library, BHU, followed by the Maulana Azad Library AMU. The Maulana Azad Library, AMU, and Sayaji Rao Gaekwad Library, BHU, the second-largest amount were spent in the year 2018-2019.

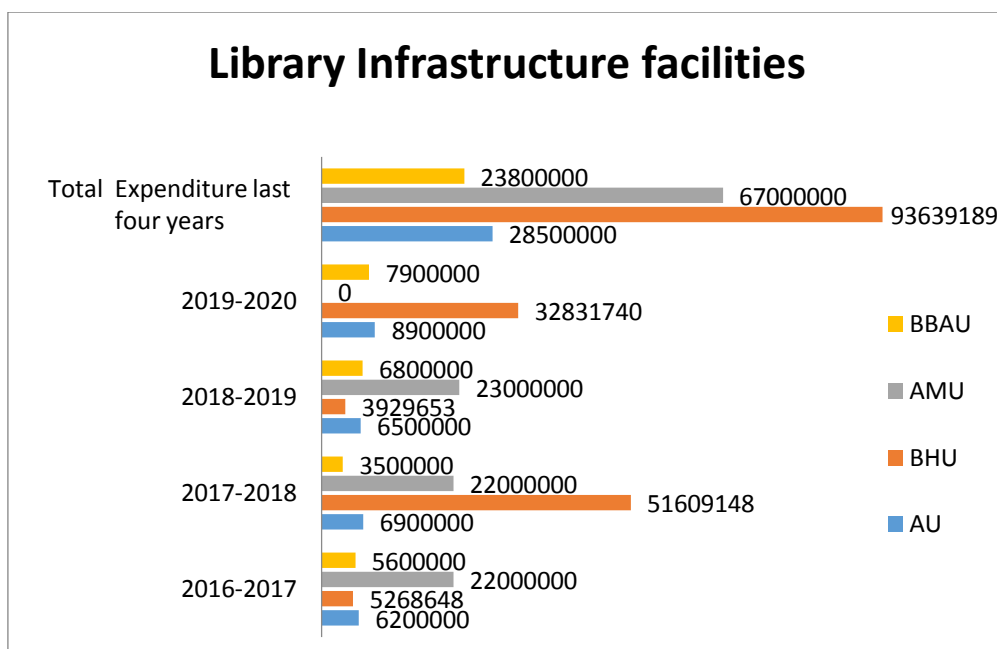


Figure 4.1.10.3: Expenditure on Infrastructural facilities

The above figure, 4.1.10.3, shows the last four-year expenditure on library infrastructure facilities. It is observed that the Sayaji Rao Gaekwad Library has spent a maximum amount, BHU followed by the M.A Maulana Azad Library AMU, Allahabad university library, au, Gautam Buddha library BBAU. The second-largest amount was spent by the M.A Maulana Azad Library, AMU, in the academic year 2018-2019.

Table 4.1.11: User awareness /Education programs & Promotional activities during last year by the library

Promotional activity		Year	AU	BHU	AMU	BBAU
1	user awareness/ orientation programs (last four years)	2016-2020	27	20	20	30
2	Organize a workshop for users and faculty	2020	4	2	6	9
3	Organized webinar/seminar	2020	2	3	6	4
4	Organized book exhibition	2019	6	5	4	4
5	Organized special lectures	2019	0	0	0	0
6	Library visits arranged.	2019	51	312	637	80

Table 4.1.11 shows the library promotional activity concerning library services and resources. The Gautam Buddha library has done the highest number of library orientation programs, BBAU, followed by Allahabad University, AU, Sayaji Rao Gaekwad Library, BHU, and M.A Maulana Azad Library AMU. The BBAU library organized the highest number of workshop programs, followed by the AMU, AU, and BHU libraries. All central universities have eminent members of libraries. They continued to visit the library to review it & give it to special grand. The highest number of visits libraries by the M.A Maulana Azad Library, AMU, followed by the Sayaji Rao Gaekwad Library, BHU, Gautam Buddha library, BBAU, and Allahabad University library AU. All the libraries equally organized book exhibitions to promote the library collection.

4.1.12: The scale of librarian’s satisfaction Level with regard to Library Facilities in Providing Quality Services:

Likert Scale 1-5; (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

This section deals with librarians' perspectives on significant library-quality parameters. The researcher wanted to know what librarians thought about the following five important quality elements: ICT, service quality, resources quality, affecting service causes, and process-related aspects. Each element has a specific set of attributes and qualitative characteristics with 5 points Likert scales.

4.1.12.1: Analysis of librarian satisfaction level with regard to Information Communication Technology:

The ICT plays an essential role in achieving fast and accurate services in the organization. The researcher investigated the viewpoint of librarians at the universities under the study on ICT quality. Table 5.10 and chart 5.6 show that all respondent librarians have a good attitude about approaches, communication, appreciating the library organization's progress, and believing in teamwork rather than individual effort.

Table 4.1.12.1 Analysis of librarian satisfaction level with regard to ICT

ICT Score	AU	BHU	AMU	BBAU	Mean
ICT-1 (Document searching has become easier and faster with ICT)	4	5	5	4	4.5
ICT-2 (Literature search has become easy and fast ICT)	4	5	5	4	4.5
ICT-3 (Issues Return of documents has become faster and time saving with ICT)	5	4	5	4	4.5
ICT-4 (Reference service has improved with use of ICT)	5	5	4	2	4
ICT-5 (Time is considerably saved with the use of ICT)	5	5	5	4	4.75
ICT-6 (Electronic access to more no. of resources of the library at one time helps in fulfilling the information needs of the users)	4	4	4	1	3.75

ICT-7 (ICT application facilitate in providing access to library resources as per users' convenience of place & time)	4	4	5	4	4.25
ICT-8 (ICT applications in the library enabled the staff to help the user in getting the required article or material from other libraries in order to fulfill his/her information needs.)	4	4	5	3	4
ICT-9 (ICT has helped in improving the Library services)	5	4	5	4	4.5
Mean score	4.44	4.44	4.77	3.33	4.25

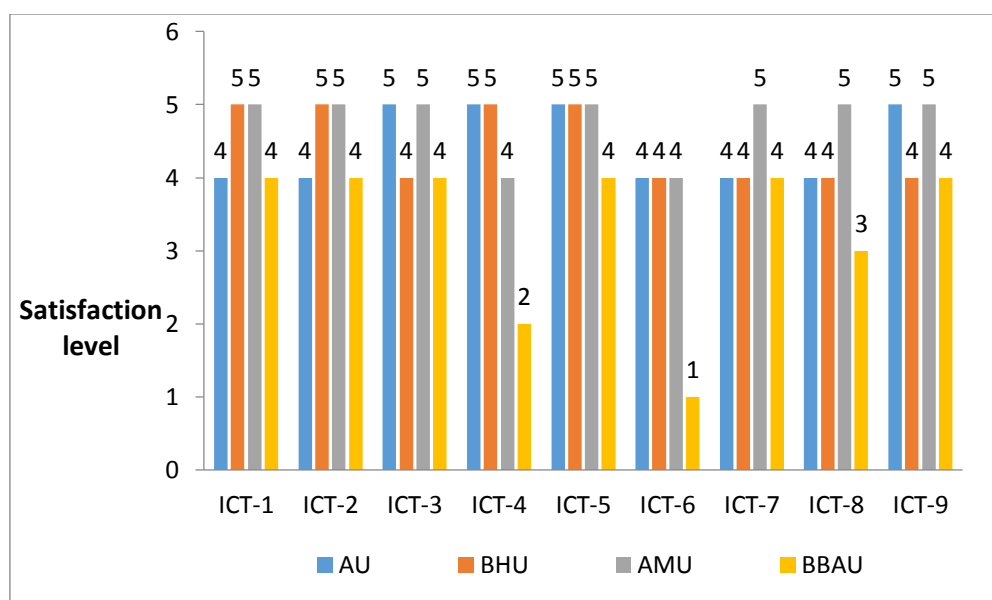


Figure 4.1.12 satisfaction level with regard to ICT

The above table and figure 4.1.12.1 explain the score about the library given by the librarian. The M.A Maulana Azad Library has strongly agreed on all the attributes' and given full points. 4.44 mean score received from BHU Banaras Hindu University and Allahabad University libraries librarians. The lowest mean score was 3.33 received by Baba Saheb Bhim Rao Ambedkar University Overall mean score for all four respondents was found 4.25, which has shown that ICT is playing a vital role in quality service in the university library.

4.1.12.2: Analysis of librarian satisfaction level with regard to facilities and quality service elements-

Table- 4.1.12.2 librarian satisfaction level

Facilities and Quality service Score		AU	BHU	AMU	BBAU	Mean
1.	Present staff	3	2	3	2	2.5
2.	Present collection	2	3	4	2	2.75
3.	Present services	2	3	4	2	2.75
4.	Present budget	3	5	5	3	4
5.	ICT application	3	4	5	4	4
6.	ILMS	5	4	5	4	4.5
7.	OPAC	4	3	4	3	3.5
8.	E-resources	2	3	5	4	3.5
9.	Present procurement policy	2	5	5	4	4
10.	Classification and cataloging	4	4	5	4	4.25
11.	Trust and confidence (staff)	5	3	5	4	4.25
12.	Staff's commitment	5	2	5	5	4.25
13.	Security & maintenance	4	4	5	4	4.25
14.	Power backup	2	3	5	3	3.25
15.	Photocopy / scanning services	2	4	5	3	3.5
16.	Quality of furniture	3	4	5	5	4.25
17.	Seating capacity	5	5	5	4	4.75
18.	Cleanliness and hygienic	4	4	5	3	4
19.	Lighting and ventilation	4	4	4	3	3.75
20.	reading halls ventilation	4	3	5	4	4
21.	Overall satisfaction	4	5	5	3	4.25
Mean Score		3.52	3.76	4.76	3.57	3.90

Quality service is an essential element for the development of any organization; the researcher asked significant aspects concerning quality service and took the librarian's perspective with service delivery and user satisfaction & also asked library resources management has a crucial part to managed quality resources. They have shown in the mean score of the elements rated by the librarians of the respondent's libraries. The Above table and below figure 4.1.12.2 indicate that the significant points agreed with the details and scored 3.23 to 5.00. The highest score was 4.56 Maulana Azad library AMU, followed by Sayaji Rao Gaekwad Library BHU, Gautam Buddha Library BBAU, and Allahabad university library AU. Over the entire mean score, 3.90 concerning facilities and quality service elements.

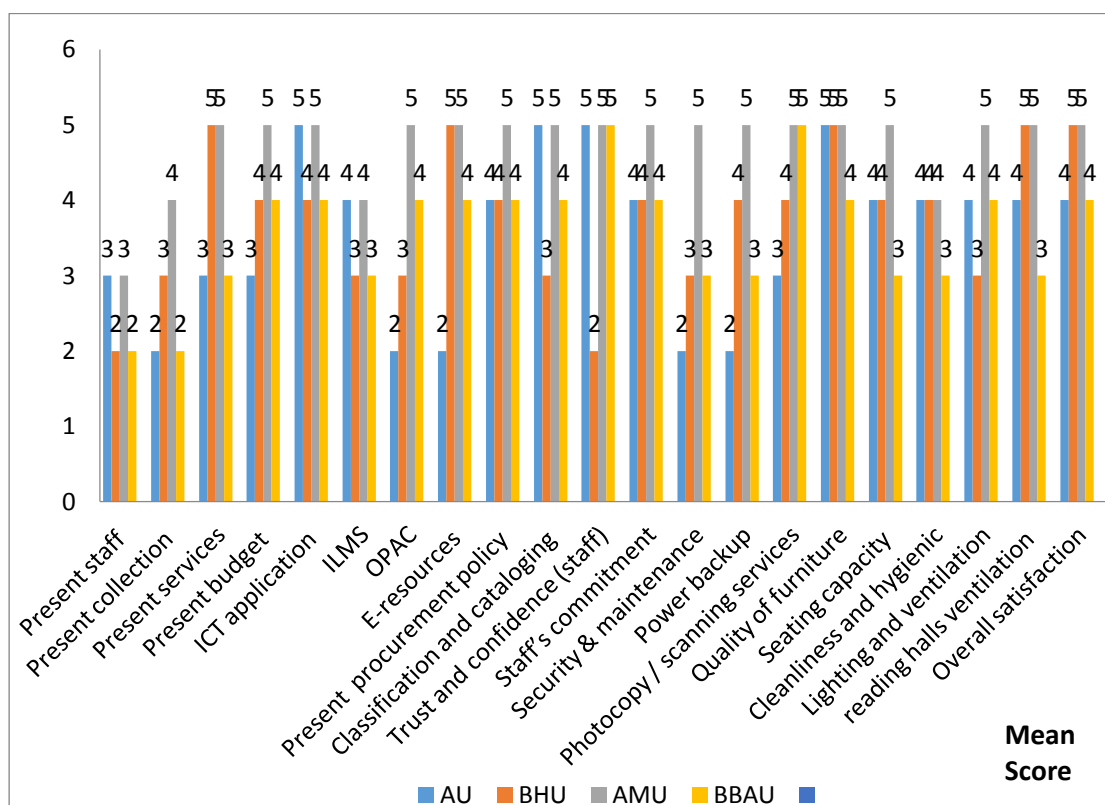


Figure 4.1.12.2 satisfaction level with regard to facilities and quality service elements

4.1.12.3 Analysis of librarian view about the Constraints of library services quality:

The rating statement scale about the library service-affecting also defines the actual status of the library's quality services. The researcher has explored the views of the librarian in the universities about the affecting service causes.

Table - 4.1.12.3 librarian view about the Constraints of library services

Constraints of library services		AU	BHU	AMU	BBAU	Mean
1	Limited of fund	3	2	3	4	3
2	Limited of knowledge	2	3	4	2	2.75
3	Limited of University Administration	2	4	3	2	2.75
4	Limited of infrastructure facilities	4	4	3	4	3.75
5	Limited of trained staff	4	2	4	4	3.5
6	Library staff resistance to adopt change	3	2	4	2	2.75
Mean score		3	2.83	3.5	3	3.08

The above table and below figure 4.1.12.3 indicate that all the librarians expressed a positive opinion regarding the approach of affected library services. They also expressed and showed tier belief in teamwork rather than individual work. The highest score was 3.4 Maulana Azad Library, AMU, followed by the Gautam Buddha Library BBAU, Allahabad University library AU and Sayaji Rao Gaekwad Library BHU. The overall all service affected score has 3.08.

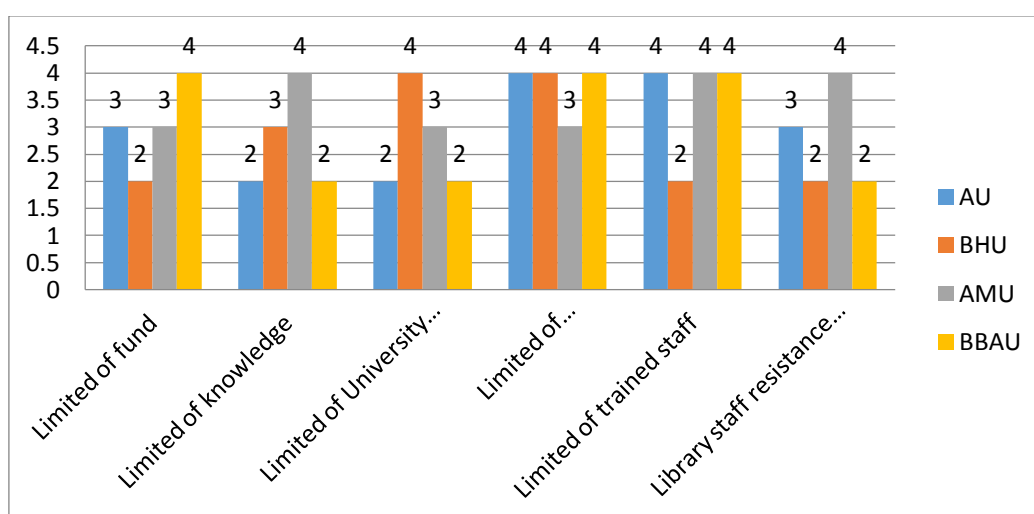


Figure 4.1.12.3 satisfaction view with regards to constraints of library service quality

Part –B

Quality Service Management- Analysis of Users Survey (LibQual+™ tool analysis)

Chapter Overview

After collecting data, it is imperative to convert data into meaningful information that the layman can understand after collecting data. Data analysis is the process of inspecting and acquiring raw data and transforming it into information that users can use to make decisions. The data for the study was obtained in line with the research methodology in order to meet the study's specific objectives and test the hypothesis. The present chapter reports the results of the investigation. The analyzed data are presented in tabular form, and graphical representation is also made wherever required. Different statistical techniques, such as Frequency, Percentage, Mean, Standard Deviation, Chi-Square, Paired Sample t-test, ANOVA, and Multiple Regression analysis, were employed to get meaningful conclusions from the collected data. In this chapter, the results are presented under the following headings:

4.2 General Information

4.3: Library Usage Pattern

4.4: User's perception about Affect of service, Resources, and Infrastructure (LIBQUAL +™ Tool)

4.5: Hypothesis Validation

General Information

4.2 Gender wise status

The data in Table 4.2 indicate the high participation of males compared to female respondents of libraries of four universities taken in the current study. In AMU, out of 288 respondents, 53.4 % were male users, while 46.6 % were female users. In AU Prayagraj, out of 344 respondents, 54.1 % were male users, and 45.9 % were female users. In BBAU Lucknow, out of 291 respondents, 56 % were male users, whereas 44 % were female users. On the other hand, in BHU Varanasi, out of 374 respondents, 59.4 % were male users, and 40.1 % were female users. In total, 55.9 % of respondents were male, and 44.1 % were female users.

Table 4.2: Gender wise distribution of respondents

Name of the University	Status of respondents	Gender		Total
		Male	Female	
AMU, Aligarh	N	154	134	288
	Within same university (%)	53.4	46.6	100
	Within overall gender (%)	21.2	23.4	44.6
AU, Prayagraj	N	186	158	344
	Within same university (%)	54.1	45.9	100
	Within overall gender (%)	25.7	27.6	53.3
BBAU, Lucknow	N	163	128	291
	Within same university (%)	56	44	100
	Within overall gender (%)	22.5	22.4	44.9
BHU, Varanasi	N	222	152	374
	Within same university (%)	59.4	40.6	100
	Within overall gender (%)	30.6	26.6	57.2
Total	N	725	572	1297
	Within same university (%)	55.9	44.1	100
	Within overall gender (%)	100	100	100

$$\chi^2 = 2.972 \quad \text{d.f.} = 3 \quad P = 0.396$$

The gender-wise distribution of the respondents of libraries in four different universities was statistically tested, the calculated value of χ^2 was observed to be 2.972, and the p-value was 0.396, which is more than 0.05, meaning that the

proportion of the respondents of a different gender does not differ significantly. In AMU, out of 288, 53% are male, and 46.6% are presenting.

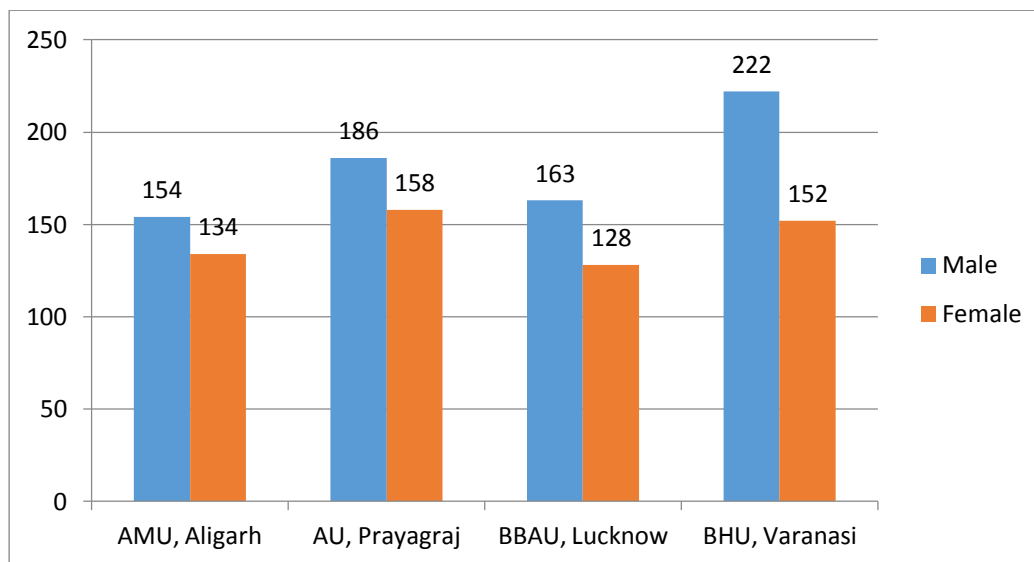


Figure 4.2: Gender wise distribution of respondents

4.2.1 Age wise status

The data in Table 4.2.1 demonstrate the percentage of library users in the four universities. In AMU, out of 288 respondents, only 9.4 % belonged to the age bracket 16-20 years, around 34 percent belonged to both 21-25 and 26-30 age brackets, and 8 and 13.5% belonged to the age brackets of 31-35 and above 36 years respectively. In AU, out of 344 respondents, only 1.2 % belonged to the age bracket 16-20 years, 27.6 % belonged to 21-25 years age bracket, 48.5 % to the age bracket 26-30 age bracket, and 11.3 % to the age brackets 31-35 and above 36 years respectively. In BBAU, out of 291 respondents, only 3.8 % belonged to the age bracket 16-20 years, 23% belonged to 21-25 years age bracket, 52.9% to the age bracket 26-30 age bracket, 12% to the age bracket 31-35 and 8.2% belonged to the category of users above 36 years respectively. In BHU, out of 374 respondents, only 5.5 percent belonged to the age bracket 16-20 years, 26.7 % belonged to 21-25 years age bracket, 46.5% to the age bracket 26-30 age bracket, 9.7% to the age bracket 31-35 and 11.6% belonged to the category of users above 36 years respectively.

Table 4.2.1: Age wise distribution of respondents

Name of the University	Status of respondents	Age (in years)					Total
		16-20	21-25	26-30	31-35	36 and above	
AMU, Aligarh	N	27	100	99	23	39	288
	Within same university (%)	9.4	34.7	34.4	8.0	13.5	100
	Within overall age (%)	38.0	28.9	16.4	18.3	25.8	127.4
AU, Prayagraj	N	4	95	167	39	39	344
	Within same university (%)	1.2	27.6	48.5	11.3	11.3	100
	Within overall age (%)	5.6	27.5	27.7	31.0	25.8	117.6
BBAU, Lucknow	N	11	67	154	35	24	291
	Within same university (%)	3.8	23.0	52.9	12.0	8.2	100
	Within overall age (%)	15.5	19.4	25.5	27.8	15.9	104.1
BHU, Varanasi	N	29	84	183	29	49	374
	Within same university (%)	7.8	22.5	48.9	7.8	13.1	100
	Within overall age (%)	40.8	24.3	30.3	23.0	32.5	150.9
Total	N	71	346	603	126	151	1297
	Within same university (%)	5.5	26.7	46.5	9.7	11.6	100
	Within overall age (%)	100	100	100	100	100	100

$$\chi^2 = 57.671$$

d.f. = 12

P = 0.00

Calculated the value of χ^2 was observed to be 57.671, and the p-value was 0.000 which is less than 0.05, meaning that the proportions of the respondents of different age groups differ significantly.

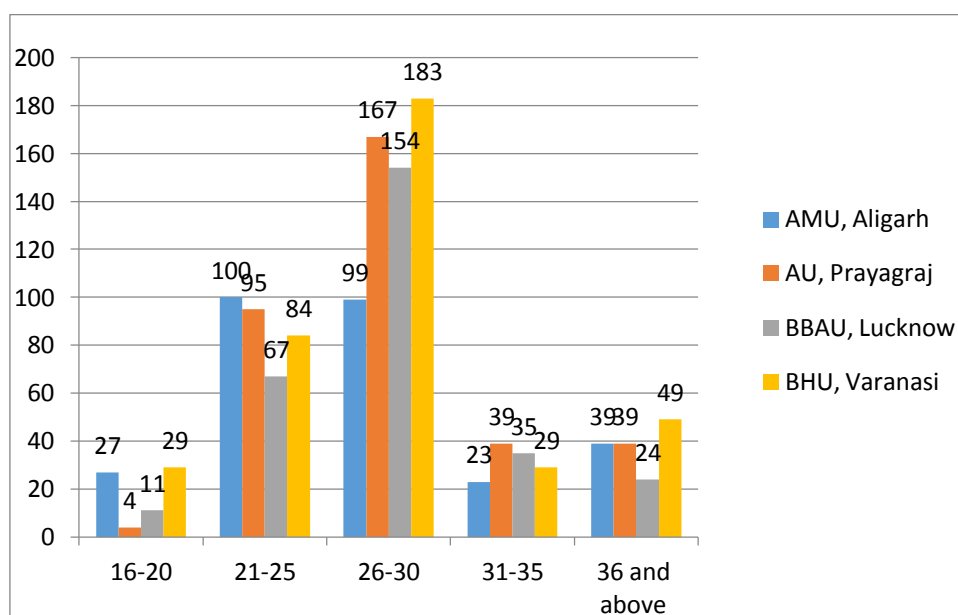


Figure 4.2.1: Age wise distribution of respondents

4.2.2 Discipline wise distribution of respondents

Table 4.2.2 shows the discipline-wise distribution of respondents. From AMU, 41.3% of respondents belonged to social science discipline, 35.1% percent to sciences, 7.6 % to medical sciences, 4.5 % to management science, and 11.5 % belonged to engineering and technology. From AU, 26.7 % of respondents belonged to social science discipline, 38.7 % to sciences, 7.6 % to medical sciences, 16.6 % to management science, and 10.5 % belonged to engineering and technology. From BBAU, 30.6 % of respondents belonged to social science discipline, 28.9 % to sciences, 10 % to medical sciences, 15.8 % to management science, and 14.8 % belonged to engineering and technology. From BHU, 38 % of respondents belonged to the social science discipline, 42.5 % belonged to sciences, 5.3 % to medical sciences, 8.6 % belonged to management science, and 5.6 % belonged to engineering and technology. Overall, 34.1 % of respondents belonged to social sciences, 36.8 % to sciences, 7.5 % to medical sciences, 11.4 % to medical sciences, and 10.3 % to engineering and technology.

Table 4.2.2 Discipline wise distribution of respondents

Name of the university	Status of respondents	Disciplines					Total
		Social Sciences	Sciences	Medical Sciences	Management Studies	Engineering & Technology	
AMU, Aligarh	N	119	101	22	13	33	288
	Within same university (%)	41.3	35.1	7.6	4.5	11.5	100
	Within overall age (%)	26.9	21.2	22.7	8.8	24.8	104.4
AU, Prayagraj	N	92	133	26	57	36	344
	Within same university (%)	26.7	38.7	7.6	16.6	10.5	100
	Within overall age (%)	20.8	27.9	26.8	38.5	27.1	141.1
BBAU, Lucknow	N	89	84	29	46	43	291
	Within same university (%)	30.6	28.9	10.0	15.8	14.8	100
	Within overall age (%)	20.1	17.6	29.9	31.1	32.3	131.1
BHU, Varanasi	N	142	159	20	32	21	374
	Within same university (%)	38.0	42.5	5.3	8.6	5.6	100
	Within overall age (%)	32.1	33.3	20.6	21.6	15.8	123.5
Total	N	442	477	97	148	133	1297
	Within same university (%)	34.1	36.8	7.5	11.4	10.3	100
	Within overall age (%)	100	100	100	100	100	100

$$\chi^2 = 120.692$$

$$d.f. = 15$$

$$P = 0.00$$

Calculated the value of χ^2 was observed to be 120.692, and the p-value was 0.000, which is less than 0.05, meaning that the proportions of the respondents of different disciplines differ significantly.

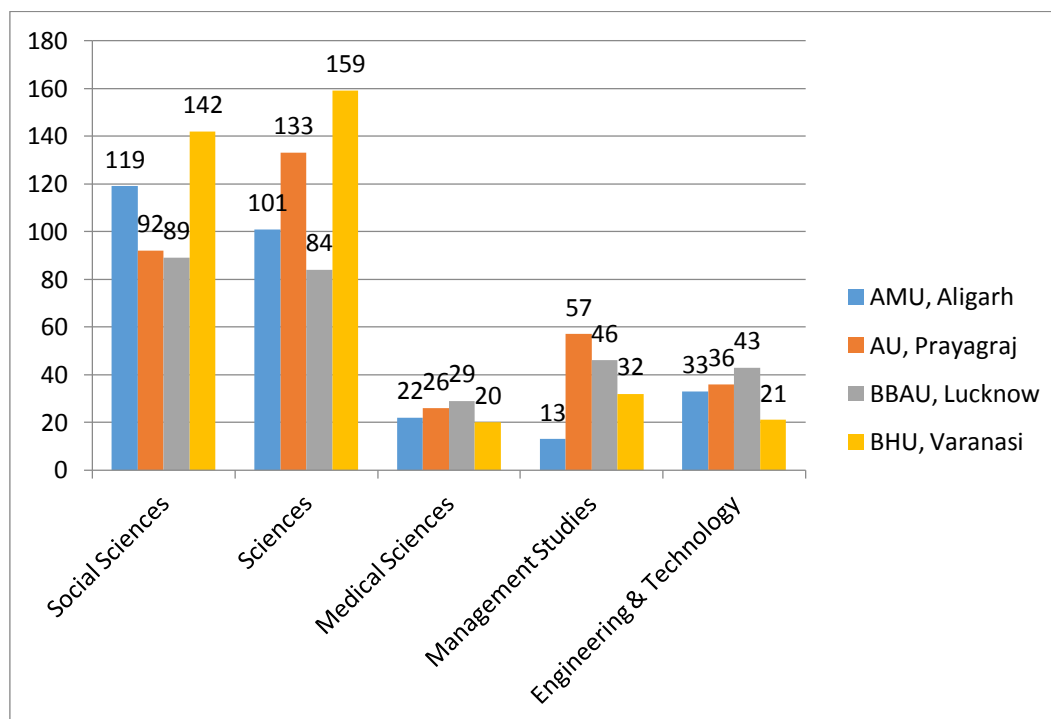


Figure 4.2.2: Discipline wise distribution of respondents

4.2.3 User Category

Table 4.2.3 shows the user category of respondents. From AMU, 20.8 % of respondents were UG, 30.6 % were PG, 24 % were teachers, 22.9 % were research scholars, and 1.7 % belonged to other user categories. From AU, 7.6 % of respondents were UG, 34.3 % were PG, 27.9 % were teachers, 28.5 % were research scholars, and 1.7 % belonged to other user categories. From BBAU, 6.2 % of respondents were UG, 41.6 % were PG, 24.4 % were teachers, 24.7 % were research scholars, and 3.1 % belonged to other user categories. From BHU, 11.8 % of respondents were UG, 29.4 % were PG, 28.9 % were teachers, 28.6 % were research scholars, and 1.3 % belonged to other user categories. Overall, 11.4 % of respondents were UG, 33.7 % were PG, 26.5 % were teachers, 26.4 % were research scholars, and 1.9 % belonged to other user categories.

Table 4.2.3: User Category

Name of the University	Status of respondents	User Category					Total
		UG	PG	Teacher	Research Scholar	Others	
AMU, Aligarh	N	60	88	69	66	5	288
	Within same university (%)	20.8	30.6	24.0	22.9	1.7	100
	Within overall user category (%)	40.5	20.1	20.1	19.2	20.0	120.0
AU, Prayagraj	N	26	118	96	98	6	344
	Within same university (%)	7.6	34.3	27.9	28.5	1.7	100
	Within overall user category (%)	17.6	27.0	27.9	28.6	24.0	125.0
BBAU, Lucknow	N	18	121	71	72	9	291
	Within same university (%)	6.2	41.6	24.4	24.7	3.1	100
	Within overall user category (%)	12.2	27.7	20.6	21.0	36.0	117.5
BHU, Varanasi	N	44	110	108	107	5	374
	Within same university (%)	11.8	29.4	28.9	28.6	1.3	100
	Within overall user category (%)	29.7	25.2	31.4	31.2	20.0	137.5
Total	N	148	437	344	343	25	1297
	Within same university (%)	11.4	33.7	26.5	26.4	1.9	100
	Within overall user category (%)	100	100	100	100	100	100

$$\chi^2 = 50.135$$

$$d.f. = 12$$

$$P = 0.00$$

Calculated the value of χ^2 was observed to be 50.132, and the p-value was 0.000, which is less than 0.05, meaning that the proportion of the respondents of different user categories differs significantly.

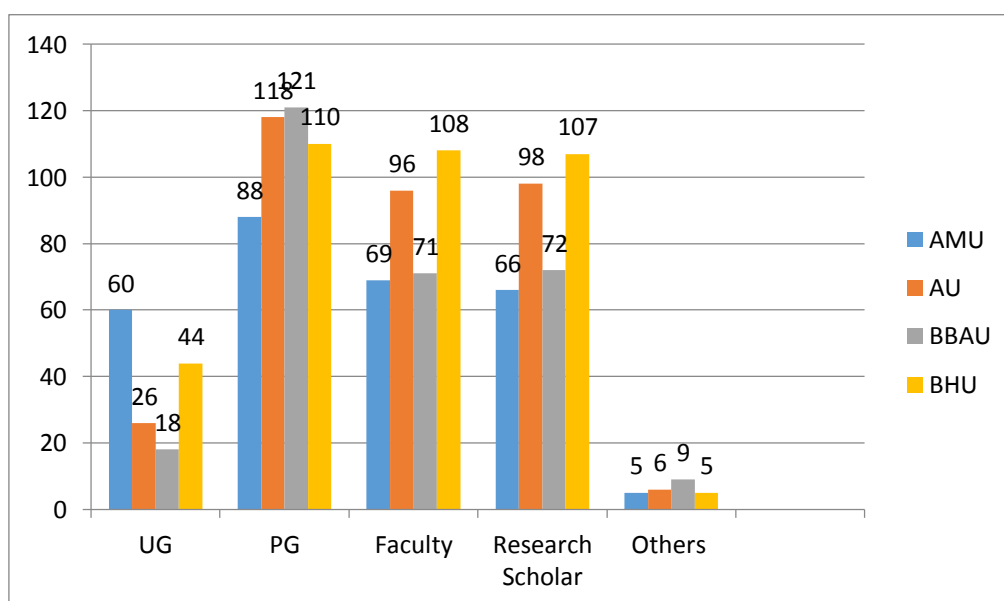


Figure 4.2.3: User Category

Library Usage Pattern

4.3 Frequency of Library Visit

The data in Table 4.3 demonstrate the frequency of user visits to libraries of the four universities. In AMU, out of 288 respondents, 64.8 % visit the daily library, 6.3 % visit the library twice a week, 12.5% visit the library thrice a week, 2.1% visit the library fortnightly and once in a month, and 12.8 % visit the library occasionally. In AU, out of 288 respondents, 79.7 % visit the daily library, 9.6 % visit the library twice a week, 9% visit the library thrice a week, and 2% visit the library fortnightly, once in a month, and occasionally each. In BBAU, out of 291 respondents, 75.0 % users visit the library daily, 7.6% users visit the library twice a week, 13.4% users visit the library thrice a week, 1.4 % users visit the library fortnightly, 1.7% users visit the library once a month, and 0% users visit library occasionally. In BHU, out of 374 respondents, 79.4% of users visit the library daily, 7.8% visit the library twice a week, 9.6% of users visit the library thrice a week, and 1.6% of users visit the library once a month and occasionally. Overall, 75.3% visit the library daily, 7.9% visit the library twice a week, 10.9 % visit the library thrice a week, 0.9% visit the library fortnightly, 1.5% visit the library once a month, and 3.5 % visit the library occasionally.

Table 4.3: Frequency Visit of Library

Name of the University	Status of respondents	Frequency of Library Visit						Total
		Daily	Twice a week	weekly	Fortnightly	Once in a month	Occasionally	
AMU, Aligarh	N	185	18	36	6	6	37	288
	Within same university (%)	64.2	6.3	12.5	2.1	2.1	12.8	100
	Within overall frequency (%)	18.9	17.6	25.4	50.0	31.6	82.2	225.7
AU, Prayagraj	N	274	33	31	2	2	2	344
	Within same university (%)	79.7	9.6	9.0	0.6	0.6	0.6	100
	Within overall frequency (%)	28.0	32.4	21.8	16.7	10.5	4.4	113.9
BBAU, Lucknow	N	221	22	39	4	5	0	291
	Within same university (%)	75.9	7.6	13.4	1.4	1.7	0.0	100
	Within overall frequency (%)	22.6	21.6	27.5	33.3	26.3	0.0	131.3
BHU, Varanasi	N	297	29	36	0	6	6	374
	Within same university (%)	79.4	7.8	9.6	0.0	1.6	1.6	100
	Within overall frequency (%)	30.4	28.4	25.4	0.0	31.6	13.3	129.1

Total	N	977	102	142	12	19	45	1297
	Within same university (%)	75.3	7.9	10.9	0.9	1.5	3.5	100
	Within overall frequency (%)	100	100	100	100	100	100	100

$$\chi^2 = 119.298 \quad \text{d.f.} = 15 \quad \text{P} = 0.00$$

Calculated the value of χ^2 was observed to be 57.671, and the p-value was 0.000, which is less than 0.05, meaning that the proportion of the respondents of four universities differs significantly in their frequency of visitors to the library.

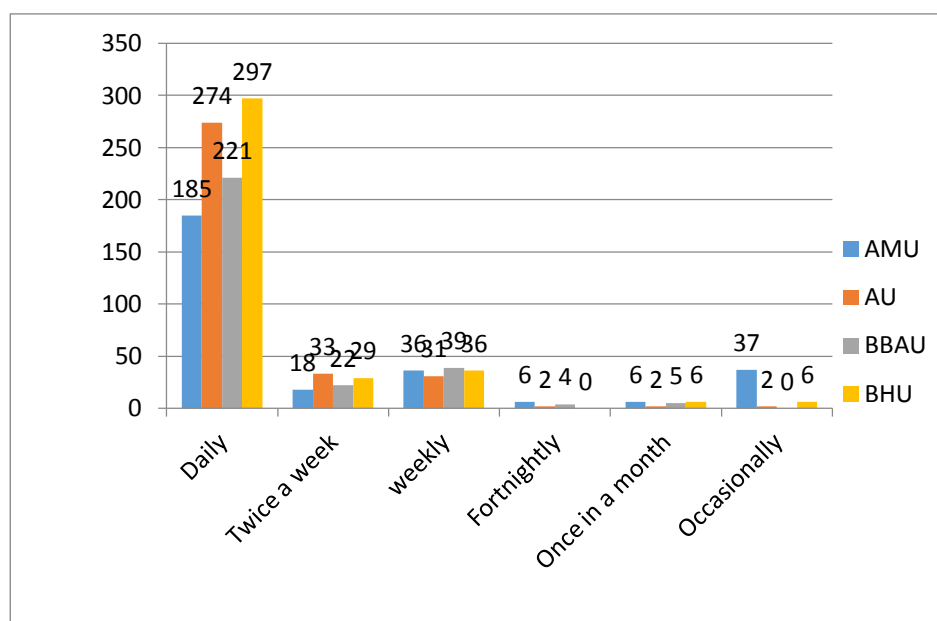


Figure 4.3: Frequency of Library Visit

4.3.1 Awareness about Library Resources

Table 4.3.1 demonstrates users' awareness about the various services and resources in the library. A majority of the users in all four universities were aware of all the library services. This implies that all the four libraries taken in this study provide standard services to their users. The chi-square results demonstrate that user awareness is significantly different for some services for different universities. These services are circulation service, reference service, indexing and abstracting, OPAC (online catalog service), library website, information service, and referral service. AMU has 85 % and 83 % user awareness for circulation and reference services, respectively, and the other three universities have more than 90 % user awareness. BHU has the highest %age (75 %) of users aware of this service for indexing and abstracting, while the other

universities have less than 70 %users aware of this service. For OPAC, AMU has 78 %user awareness, and the other three universities have more than 80 %user awareness. BBAU has 73 %of user awareness for information services, and the other three universities have more than 80 % of user awareness. Allahabad University has the highest percentage (91 %) of users aware of the library website.

Thus, all four universities are providing standard services to their users. But for four services (circulation, reference, OPAC, and documentation). The highest awareness of referral service by the 80% BBAU library and 80% BHU library followed by 77% AU library and 74% AMU library. The awareness of internet/wifi by the BHU, BBAU, and AU library was highest, followed by AMU library. The awareness of remote access used becomes high by BHU library, followed by AU library; AMU and BBAU were equal access. Interestingly, all the universities accessed the research support services equally. This implies procedures to generate user awareness in these universities vis-à-vis the four services mentioned above differ in the four universities.

Table 4.3.1: Awareness about Library Resources

User Response	AMU	AU	BBAU	BHU
Circulation Service				
Yes	245 (85%)	337 (98%)	282 (97%)	347 (93%)
No	43 (15%)	7 (2%)	9 (3%)	27 (7%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=49.874; p=0.000; 0 cells have expected count less than 5.			
Reference Service				
Yes	241 (83%)	331(96%)	289 (99%)	354 (95%)
No	47 (17%)	13 (4%)	2 (1%)	20 (5%)

User Response	AMU	AU	BBAU	BHU
Total	288	344	291	374
Chi-Square Results	Chi-Square=68.558; p=0.000; 0 cells have expected count less than 5.			
Indexing and Abstracting Service				
Yes	194 (67%)	230 (67%)	182 (62%)	282 (75%)
No	94 (33%)	114 (33%)	109 (38%)	92 (25%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=13.633; p=0.003; 0 cells have expected count less than 5.			
OPAC (online Catalogue)				
Yes	224 (78%)	298 (87%)	251(86%)	305 (81%)
No	64 (22%)	46 (13%)	40 (14%)	69 (19%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=11.566; p=0.009; 0 cells have expected count less than 5.			
Digital Reference Service				
Yes	235 (82%)	295 (86%)	248 (85%)	305 (81%)
No	53 (18%)	49 (14%)	43 (15%)	69 (19%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=3.686; p=0.297; 0 cells have expected count less than 5.			

User Response	AMU	AU	BBAU	BHU
Library Website				
Yes	258 (89%)	311 (91%)	245 (85%)	309 (82%)
No	30 (11%)	33 (9%)	46 (15%)	65 (18%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=13.050; p=0.005; 0 cells have expected count less than 5.			
Information Service				
Yes	236 (82%)	305 (89%)	212 (73%)	311 (83%)
No	52 (18%)	39 (11%)	79 (27%)	63 (17%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=15.795; p=0.001; 0 cells have expected count less than 5.			
Inter Library Loan Service				
Yes	202 (70%)	272 (79%)	213 (73%)	279 (75%)
No	86 (30%)	72 (21%)	78 (27%)	95 (25%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=6.923; p=0.072; 0 cells have expected count less than 5.			
Referral Service				
Yes	213 (74%)	288 (77%)	233 (80%)	301 (80%)
No	75 (26%)	56 (23%)	58 (20%)	73 (20%)

User Response	AMU	AU	BBAU	BHU
Total	288	344	291	374
Chi-Square Results	Chi-Square=9.498; p=0.023; 0 cells have expected count less than 5.			
Internet/Wifi				
Yes	260 (90%)	303 (88%)	261 (90%)	343 (92%)
No	28 (10%)	41 (12%)	30 (10%)	31 (8%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=2.673; p=0.445; 0 cells have expected count less than 5.			
Digital Section				
Yes	249 (86%)	301 (88%)	255 (88%)	334 (89%)
No	39 (14%)	43 (12%)	36 (12%)	40 (11%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=1.313; p=0.726; 0 cells have expected count less than 5.			
Remote Access of Services				
Yes	221 (77%)	267 (78%)	222 (76%)	305 (81%)
No	67 (23%)	77 (22%)	69 (24%)	69 (19%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=3.522; p=0.318; 0 cells have expected count less than 5.			

User Response	AMU	AU	BBAU	BHU
Research Support Service				
Yes	218 (76%)	261 (76%)	221 (76%)	285 (76%)
No	70 (24%)	83 (24%)	70 (24%)	89 (24%)
Total	288	344	291	374
Chi-Square Results	Chi-Square=0.025; p=0.999; 0 cells have expected count less than 5.			
Keys AMU= Aligarh Muslim University AU= Allahabad University BHU= Banaras Hindu University BBAU= Baba Saheb Bhimrao Ambedkar University				

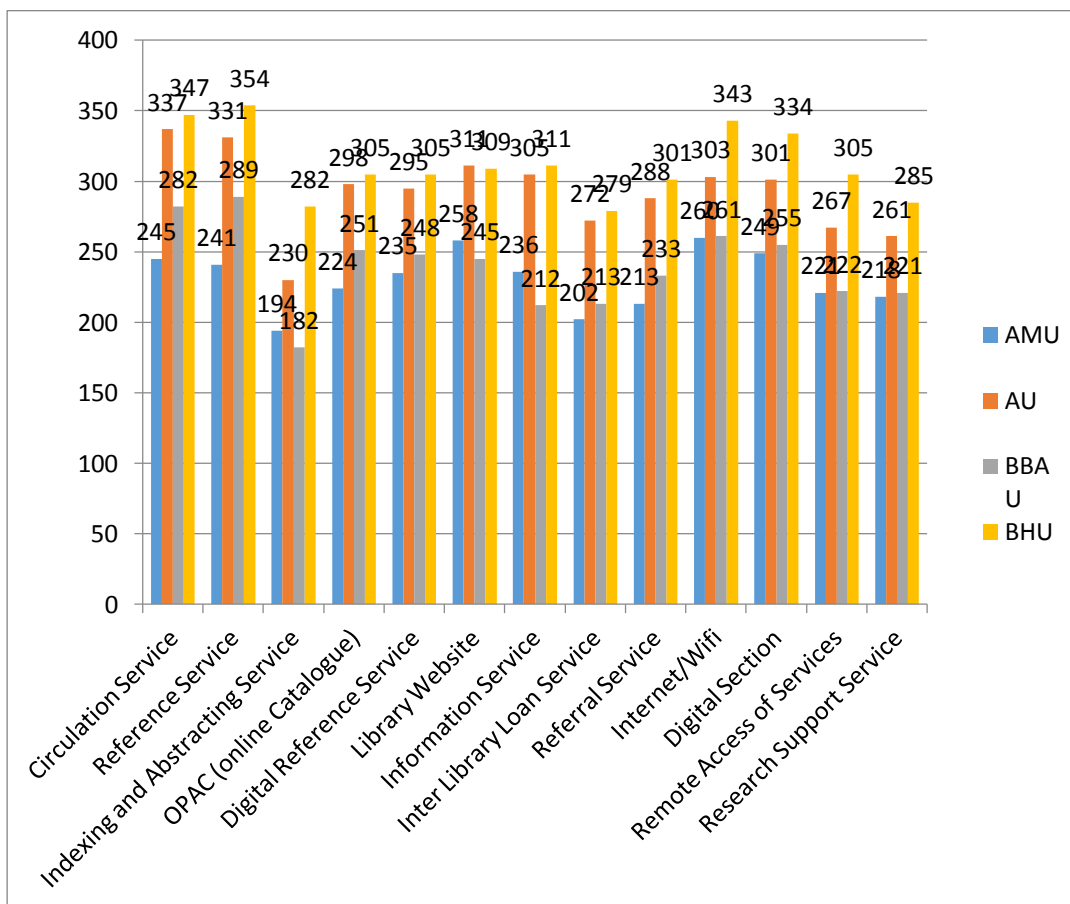


Figure- 4.3.1 Awareness about Library Resources

4.3.2 Satisfaction with Library Resources

The data in Table 4.3.2 demonstrate the user satisfaction with the library resources. In AMU, out of 288 respondents, 0.7 % of users are the least satisfied, 37.5 % are partially satisfied, 33 % are satisfied, and 28.8 % are highly satisfied. In AU, out of 344 respondents, 0 % of users are the least satisfied, 42.2 % are partially satisfied, 22.1 % are satisfied, and 35.8 % are highly satisfied. In BBAU, out of 291 respondents, 1.4 % of users are the least satisfied, 29.2 % are partially satisfied, 27.1 % are satisfied, and 42.3 % are highly satisfied. In BHU, out of 374 respondents, 0 % of users are the least satisfied, 38.5 % are partially satisfied, 34.8 % are satisfied, and 26.7 % are highly satisfied. Overall, 0.5 % of users are the least satisfied, 37.2 % are partially satisfied, 29.3 % are satisfied, and 33.1 % are highly satisfied.

Table 4.3.2: User Satisfaction with type of Library Resources

Name of the University	Status of respondents	User Category					Total
		Not Satisfied	Least Satisfied	Partial Satisfied	Satisfied	Highly Satisfied	
AMU, Aligarh	N	0	2	108	95	83	288
	Within same university (%)	0.0	0.7	37.5	33.0	28.8	100
	Within overall user category (%)	0	33.3	22.4	25.0	6.4	87.1
AU, Prayagraj	N	0	0	145	76	123	344
	Within same university (%)	0.0	0.0	42.2	22.1	35.8	100
	Within overall user category (%)	0	0.0	30.1	20.0	9.5	59.6
BBAU, Lucknow	N	0	4	85	79	123	291
	Within same university (%)	0.0	1.4	29.2	27.1	42.3	100
	Within overall user category (%)	0	66.7	17.6	20.8	9.5	114.6
BHU, Varanasi	N	0	0	144	130	100	374
	Within same university (%)	0.0	0.0	38.5	34.8	26.7	100
	Within overall user category (%)	0	0.0	29.9	34.2	7.7	71.8
Total	N	0	6	482	380	429	1297
	Within same university (%)	0.0	0.5	37.2	29.3	33.1	100
	Within overall user category (%)	100	100	100	100	100	100

$$\chi^2 = 42.3$$

$$\text{d.f.} = 9$$

$$P = 0.00$$

The calculated value of χ^2 was observed to be 42.3, and the p-value was 0.000, which is less than 0.05, meaning that user satisfaction with library resources in four universities differs significantly.

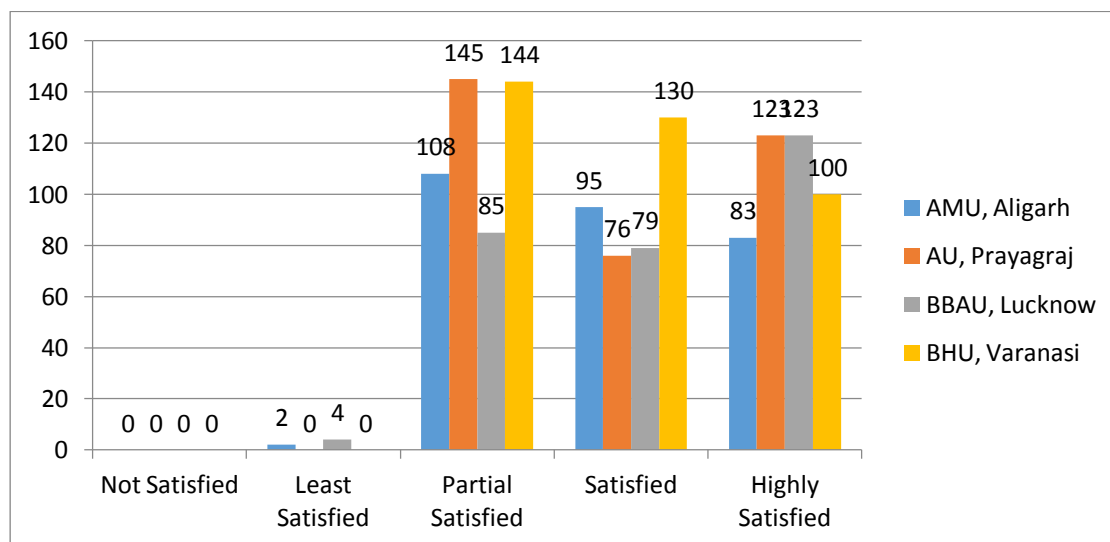


Figure 4.3.2: User Satisfaction with Library Resources

4.3.3 User purpose to Refer Library Resources

The data in Table 4.3.3 demonstrate the user purpose to refer to library resources. The users intended to refer resources to others for all the resources. However, the significant chi-square values support that the users across the four universities differ significantly in their purpose to refer to library resources. It is observed that AU 97.1% library has highly referred the books followed by 93.6% BHU library, 92.4 % BBAU library, and 87.8% AMU library. The journals are highly referred by the 88.8% BHU and 88.6% BBAU, followed by the AU library 86.6% and 72.6% AMU library. The 86.6% AU library has highly referred periodicals followed by 83.8% BBAU library, 82.5 % BHU library, and 63.5% AMU library. It is observed that the 89.3% BBAU library has highly referred the e-resources followed by the 83.7% AU library and 81.8% BHU library have equally referred and 79.5% AMU library. All the four libraries equally use audiovisual aids and project reports. The high usage of dissertation and thesis by 74.4% AU library and 73.2% BBAU library followed by the 68.7% BHU library and 61.1% AMU library. The 74.1% AU library has highly referred reference sources followed by 71.1% BHU library, 66.3% BBAU library, and

59.4 % AMU library. The 66.6% AU library has highly referred the archival resources followed by 63.9% BHU library, 57.7 BBAU library, and 55.6% AMU library were equal access resources.

Table 4.3.3: Purpose to Refer the Library Resources

User Response	AMU	AU	BBAU	BHU
Books				
Not referred	0 (0%)	0 (0%)	0 (0%)	2 (0.5%)
Least referred	2 (0.7%)	4 (1.2%)	0 (0%)	0 (0%)
Partially referred	7 (2.4%)	2 (0.6%)	4 (1.4%)	0 (0%)
Often referred	26 (9%)	4 (1.2%)	18 (6.2%)	22 (5.9%)
Highly Referred	253 (87.8%)	334 (97.1%)	269 (92.4%)	350 (93.6%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=43.039; d=12; p=0.000; 0 cells have expected count less than 5.			
Journals				
Not referred	7 (2.4%)	0 (0%)	4 (1.4%)	8 (2.1%)
Least referred	0 (0%)	2 (0.6%)	0 (0%)	2 (0.5%)
Partially referred	20 (6.9%)	12 (3.5%)	2 (0.7%)	4 (1.1%)
Often referred	52 (18.1%)	32 (9.3%)	27 (9.3%)	28 (7.5%)

User Response	AMU	AU	BBAU	BHU
Highly Referred	209 (72.6%)	298 (86.6%)	258 (88.7%)	332 (88.8%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=62.659; p=0.000; 0 cells have expected count less than 5.			
Periodicals				
Not referred	6 (2.1%)	0 (0%)	4 (1.4%)	8 (2.1%)
Least referred	4 (1.4%)	4 (1.2%)	0 (0%)	6 (1.6%)
Partially referred	47 (16.3%)	10 (2.9%)	13 (4.5%)	16 (4.3%)
Often referred	48 (2.1%)	32 (9.3%)	30 (10.3%)	36 (9.6%)
Highly Referred	183 (63.5%)	298 (86.6%)	244 (83.8%)	308 (82.5%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=87.059; p=0.000; 0 cells have expected count less than 5.			
E Resources				
Not referred	0 (0%)	4 (1.2%)	0 (0%)	2 (0.5%)
Least referred	6 (2.1%)	6 (1.7%)	0 (0%)	4 (1.1%)
Partially	26 (9%)	17 (4.9%)	6 (2.1%)	18 (4.8%)

User Response	AMU	AU	BBAU	BHU
referred				
Often referred	27 (9.4%)	29 (8.4%)	25 (8.6%)	44 (11.8%)
Highly Referred	229 (79.5%)	46 (83.7%)	260 (89.3%)	306 (81.8%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=30.812; p=0.002; 0 cells have expected count less than 5.			
Audio Video Aids				
Not referred	17 (5.9%)	8 (2.3%)	10 (3.4%)	33 (8.8%)
Least referred	17 (5.9%)	16 (4.7%)	13 (4.5%)	18 (4.8%)
Partially referred	58 (20.1%)	70 (20.3%)	89 (30.6%)	63 (16.8%)
Often referred	48 (16.7%)	48 (14%)	20 (6.9%)	38 (10.2%)
Highly Referred	148 (51.4%)	220 (58.7%)	159 (54.6%)	222 (59.2%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=49.086; p=0.000; 0 cells have expected count less than 5.			
Thesis/Dissertation				
Not referred	4 (1.4%)	4 (1.2%)	6 (2.1%)	28 (7.5%)

User Response	AMU	AU	BBAU	BHU
Least referred	10 (3.5%)	12 (3.5%)	2 (0.7%)	15 (4%)
Partially referred	57 (19.8%)	41 (11.9%)	46 (15.8%)	35 (9.4%)
Often referred	41 (14.2%)	31 (9%)	24 (8.2%)	39 (10.4%)
Highly Referred	176 (61.1%)	256 (74.4%)	213 (73.2%)	257 (68.7%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=61.929; p=0.000; 0 cells have expected count less than 5.			
Project Reports				
Not referred	8 (2.8%)	6 (1.7%)	4 (1.4%)	24 (6.4%)
Least referred	8 (2.8%)	10 (2.9%)	9 (3.1%)	21 (5.6%)
Partially referred	50 (17.4%)	45 (13.1%)	41 (14.1%)	46 (12.3%)
Often referred	56 (19.4%)	29 (8.4%)	52 (17.9%)	43 (11.5%)
Highly Referred	166 (57.6%)	254 (73.8%)	185 (63.6%)	240 (64.2%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=51.190; p=0.000; 0 cells have expected count less than 5.			

User Response	AMU	AU	BBAU	BHU
Reference Resources				
Not referred	10 (3.5%)	6 (1.7%)	4 (1.4%)	20 (5.3%)
Least referred	16 (5.6%)	14 (4.1%)	2 (0.7%)	10 (2.7%)
Partially referred	38 (13.2%)	39 (11.3%)	56 (19.2%)	22 (5.9%)
Often referred	51 (17.7%)	30 (8.7%)	36 (12.4%)	45 (12%)
Highly Referred	171 (59.4%)	255 (74.1%)	193 (66.3%)	266 (71.1%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=55.058; p=0.000; 0 cells have expected count less than 5.			
Archival Resources				
Not referred	10 (3.5%)	8 (2.3%)	2 (0.7%)	22 (5.9%)
Least referred	19 (6.6%)	14 (4.1%)	15 (5.2%)	18 (4.8%)
Partially referred	45 (15.6%)	59 (17.2%)	71 (24.4%)	58 (15.5%)
Often referred	54 (18.8%)	24 (9.9%)	35 (12%)	37 (9.9%)
Highly Referred	160 (55.6%)	229 (66.6%)	168 (57.7%)	239 (63.9%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)

User Response	AMU	AU	BBAU	BHU
Chi-Square Results	Chi-Square=43.104; p=0.000; 0 cells have expected count less than 5.			
Keys AMU= Aligarh Muslim University AU= Allahabad University BHU= Banaras Hindu University BBAU= Baba Saheb Bhimrao Ambedkar University				

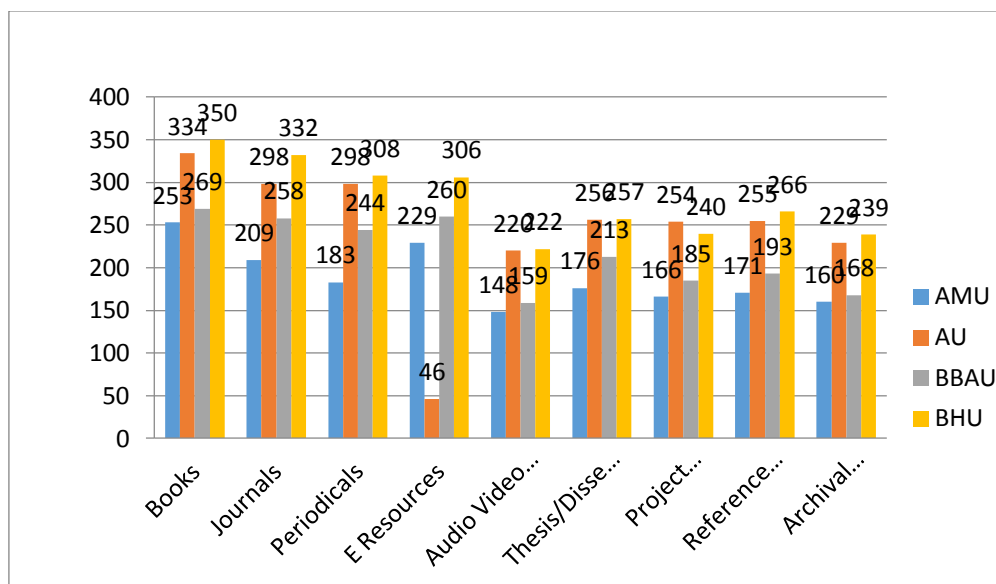


Figure 4.3.3: Purpose to Refer the Library Resources

4.3.4 Purpose for Visiting Library

Table 4.3.4 demonstrates the purpose of users for visiting the library. In all the four universities, most of the users revealed that borrowing books are one of the purposes for visiting the library. It is observed that the highest 98.5% of users were used the library to borrow the books, whereas 93.5 % of users used the library to read the journal and magazine. 86% of users used the library to access the internet facility, whereas all universities access the online resources equally. All the university users used library supplement classroom teaching and read the novels/storybooks. The highest majority of library users used libraries for peaceful study and a positive academic environment. A significant chi-square value ($p < 0.05$) supported that the

users of the four universities differ vis-à-vis borrowing books. Similarly, in all universities, the majority of the users agreed that they visited the library to read journals or magazines. The highest percentage of users belonged to the BBAU. Chi-square has significant value ($p < 0.05$). For all other purposes, the majority of the users agreed that they visit the library due to these purposes. Chi-square values were observed to be significant for all the purposes supporting that users in four universities differ in their purpose to visit the library.

Table 4.3.4: Purpose for Visiting Library

User Response	AMU	AU	BBAU	BHU
To borrow books				
Yes	269 (93.4%)	339 (98.5%)	284 (97.5%)	365 (97.5%)
No	19 (6.6%)	5 (1.5%)	7 (2.5%)	9 (2.5%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=15.975; $p=0.001$; 0 cells have expected count less than 5.			
To read journals/magazines				
Yes	223 (77.4%)	316 (91.8%)	272 (93.5%)	342 (91.4%)
No	65 (22.6%)	28 (8.2%)	19 (5.5%)	32 (8.6%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square	Chi-Square=50.052; $p=0.000$; 0 cells have expected			

User Response	AMU	AU	BBAU	BHU
Results	count less than 5.			
To read newspapers				
Yes	196 (68%)	289 (84%)	201 (69%)	291 (77.8%)
No	92 (32%)	55 (16%)	90 (31%)	83 (22.2%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=29.518; p=0.003; 0 cells have expected count less than 5.			
To use internet facilities				
Yes	204 (70.8%)	290 (84.3%)	252 (86%)	291 (77.8%)
No	84 (29.2%)	54 (15.7%)	39 (14%)	83 (22.2%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=33.190; p=0.009; 0 cells have expected count less than 5.			
To access online resources				
Yes	227 (78.8%)	296 (86%)	248 (85%)	323 (86.4%)
No	61 (21.2%)	48 (14%)	43 (15%)	51 (13.6%)
Total	288	344	291	374

User Response	AMU	AU	BBAU	BHU
	(100%)	(100%)	(100%)	(100%)
Chi-Square Results	Chi-Square=8.739; p=0.033; 0 cells have expected count less than 5.			
To read novels/story books				
Yes	188 (65.3%)	239 (82.1%)	167 (57.4%)	258 (69%)
No	100 (34.7%)	105 (17.9%)	124 (42.6%)	116 (31%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=12.909; p=0.005; 0 cells have expected count less than 5.			
To supplement classroom teaching				
Yes	215 (74.7%)	259 (75.2%)	233 (80%)	313 (82%)
No	73 (25.3%)	85 (24.8%)	58 (20%)	62 (18%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=15.795; p=0.001; 0 cells have expected count less than 5.			
To study in the peaceful academic environment				
Yes	250	287 (83.4%)	250 (86%)	329 (88%)

User Response	AMU	AU	BBAU	BHU
	(86.8%)			
No	38 (13.2%)	57 (14.6%)	41 (14%)	45 (12%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=11.056; p=0.011; 0 cells have expected count less than 5.			
Keys AMU= Aligarh Muslim University AU= Allahabad University BHU= Banaras Hindu University BBAU= Baba Saheb Bhimrao Ambedkar University				

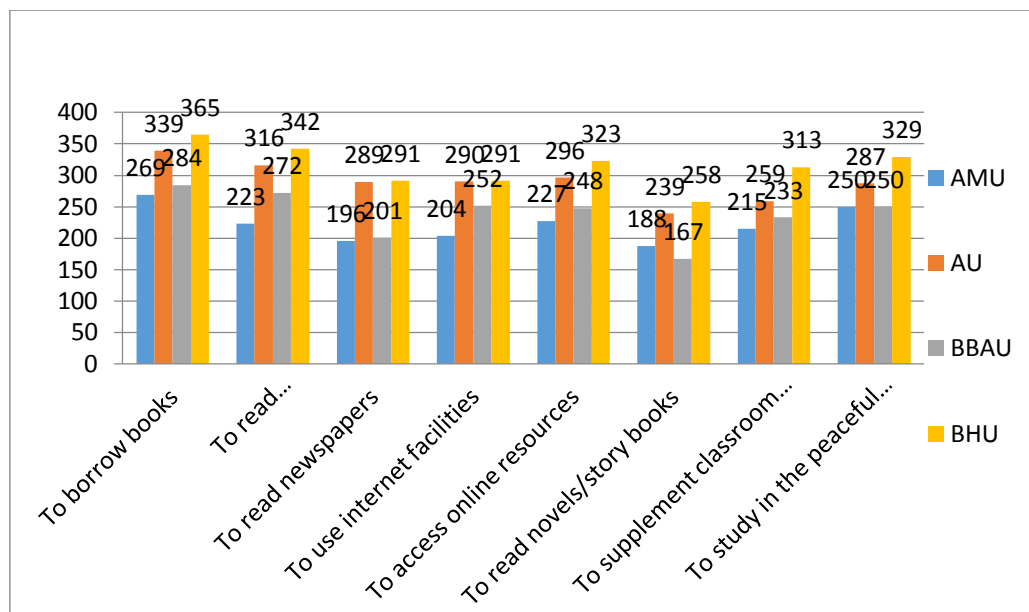


Figure 4.3.4 Purposes for Visiting Library

4.3.5 Satisfaction with Library Services

The data in Table 4.3.5 demonstrate the user satisfaction with the library resources. In AMU, out of 288 respondents, 0.7 % of users are the least satisfied, 37.5% are partially satisfied, 33 % are satisfied, and 28.8 % are highly satisfied. In AU, out of 344 respondents, 0 % of users are the least satisfied, 42.2 % are partially satisfied,

22.1% are satisfied, and 35.8% are highly satisfied. In BBAU, out of 291 respondents, 1.4 % of users are the least satisfied, 29.2 % are partially satisfied, 27.1% are satisfied, and 42.3 % are highly satisfied. In BHU, out of 374 respondents, 0 % of users are the least satisfied, 38.5 % are partially satisfied, 34.8 % are satisfied, and 26.7% are highly satisfied. Overall, 0.5 % of users are the least satisfied, 37.2% are partially satisfied, 29.3 % are satisfied, and 33.1 % are highly satisfied.

Table 4.3.5: User Satisfaction with type of Library services

Name of the University	Status of respondents	User Category					Total
		Not Satisfie	Least Satisfied	Partial Satisfied	Satisfied	Highly Satisfied	
AMU, Aligarh	N	0	4	109	93	82	288
	Within same university (%)	0.0	1.4	37.8	32.3	28.5	100
	Within overall user category (%)	0	33.3	23.2	25.5	18.2	100.2
AU, Prayagraj	N	0	0	141	77	126	344
	Within same university (%)	0.0	0.0	41.0	22.4	36.6	100
	Within overall user category (%)	0	0.0	30.1	21.1	27.9	79.1
BBAU, Lucknow	N	0	3	80	74	134	291
	Within same university (%)	0.0	1.0	27.5	25.4	46.0	100
	Within overall user category (%)	0	25.0	17.1	20.3	29.7	92.0
BHU, Varanasi	N	0	5	139	121	109	374
	Within same university (%)	0.0	1.3	37.2	32.4	29.1	100
	Within overall user category (%)	0	41.7	29.6	33.2	24.2	128.6
Total	N	0	12	469	365	451	1297
	Within same university (%)	0.0	0.9	36.2	28.1	34.8	100
	Within overall user category (%)	100	100	100	100	100	100

$$\chi^2 = 39.776$$

$$d.f. = 9$$

$$P = 0.00$$

Calculated the value of χ^2 was observed to be 39.776, and the p-value was 0.000, which is less than 0.05, meaning that user satisfaction with library services in four universities differ significantly.

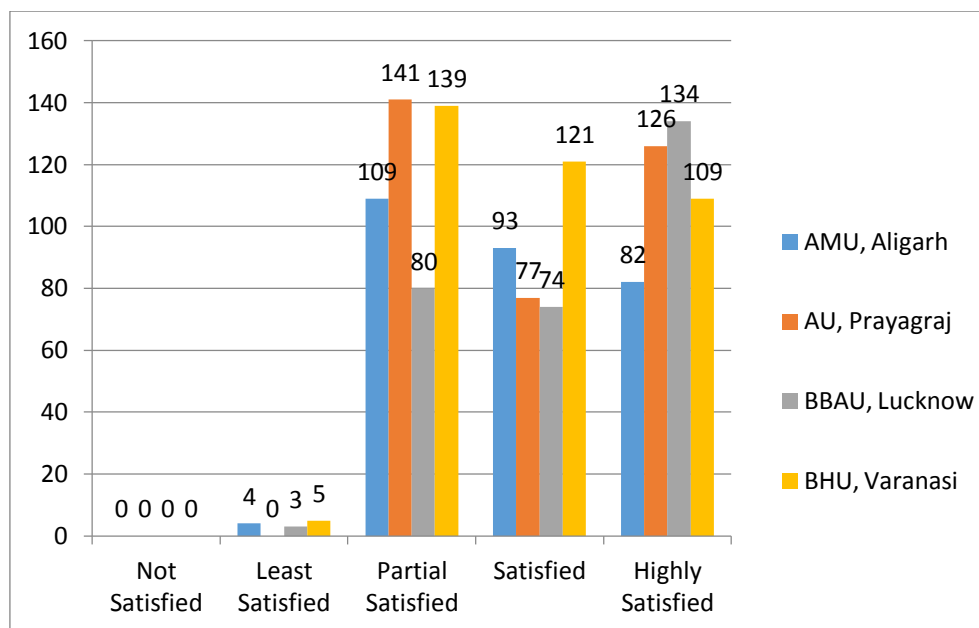


Figure 4.3.5: User Satisfaction with Library Services

4.3.6 Access to Library Resources

Table 4.3.6 demonstrates the access of users to the library resources. In AMU, 82.3 % of users have access to the library portal. In AU, 97 % of the users have access to the library portal. In BBAU, 98.3 % of the users have access to the library portal. In BHU, 93.5 % of the users have access to the library portal. Overall, 93 % of the users have access to the library portal.

Table 4.3.6: Access to Library Resources

University Name	Access Library Portal		Total
	Yes	No	
Aligarh Muslim University, Aligarh	237 (82.3%)	51 (17.7%)	288 (100%)
Allahabad University, Prayagraj	334 (97%)	10 (3%)	344 (100%)
Baba Saheb Bhimrao Ambedkar University, Lucknow	286 (98.3%)	5 (1.7%)	291 (100%)
Banaras Hindu University, Varanasi	350 (93.5%)	24 (6.5%)	374 (100%)
Total	1207 (93%)	90 (7%)	1297 (100%)

Chi-Square Results	$\chi^2 = 72.826$	d.f. = 3	P = 0.00
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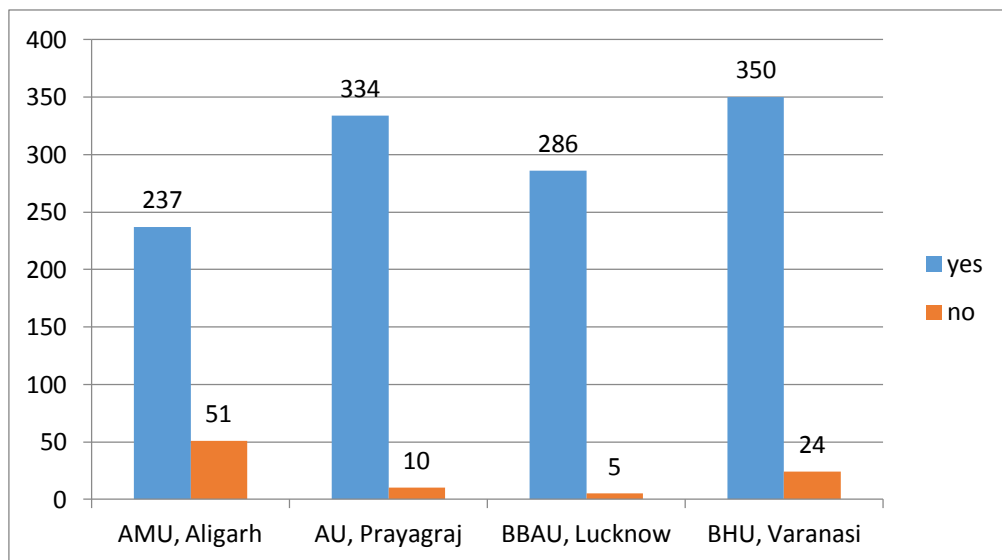


Figure 4.3.6: Access to Library Portal

4.3.7 Place of Library Access

Table 4.3.7 demonstrated the place of library access by the users of the four different universities. In AMU, 93.5 % access the library from the library, 89.1 % from the department, 18 % from class, and 23.5 % from home. In AU, 100 % access the library from the library, 88.5 % from the department, 11.6 % from class, and 7.2 % from home. In BBAU, 97.5 % access the library from the library, 95.3 % from the department, 16.4 % from class, and 19.3 % from home. In BHU, 96.4 % access the library from the library, 93.5 % from the department, 9.5 % from class, and 8.6 % from home.

Table 4.3.7: Place of Library Access

User Response	AMU	AU	BBAU	BHU
Library				

User Response	AMU	AU	BBAU	BHU
Yes	248 (93.5%)	337 (100%)	273 (97.5%)	348 (96.4%)
No	17 (6.5%)	0 (0%)	7 (2.5%)	13 (3.6%)
Total	265 (100%)	337 (100%)	280 (100%)	374 (100%)
Chi-Square Results	Chi-Square=21.895; p=0.001; 0 cells have expected count less than 5.			
Department				
Yes	238 (89.1%)	301 (88.5%)	262 (95.3%)	330 (93.5%)
No	29 (10.9%)	39 (11.5%)	13 (4.7%)	23 (6.5%)
Total	267 (100%)	340 (100%)	275 (100%)	353 (100%)
Chi-Square Results	Chi-Square=12.689; p=0.005; 0 cells have expected count less than 5.			
Class				
Yes	46 (18%)	39 (11.6%)	44 (16.4%)	34 (9.5%)
No	209 (82%)	296 (88.4%)	225 (83.6%)	322 (90.5%)
Total	255	335	269	356

User Response	AMU	AU	BBAU	BHU
	(100%)	(100%)	(100%)	(100%)
Chi-Square Results	Chi-Square=12.182; p=0.007; 0 cells have expected count less than 5.			
Home				
Yes	61 (23.5%)	24 (7.2%)	55 (19.3%)	31 (8.6%)
No	198 (76.5%)	309 (92.8%)	230 (80.7%)	329 (91.4%)
Total	259 (100%)	333 (100%)	285 (100%)	360 (100%)
Chi-Square Results	Chi-Square=48.195; p=0.009; 0 cells have expected count less than 5.			

Calculated the value of χ^2 was observed to be 48.195, and the p-value was 0.009, which is less than 0.05, meaning that library users in four universities differ significantly in their place of Library access.

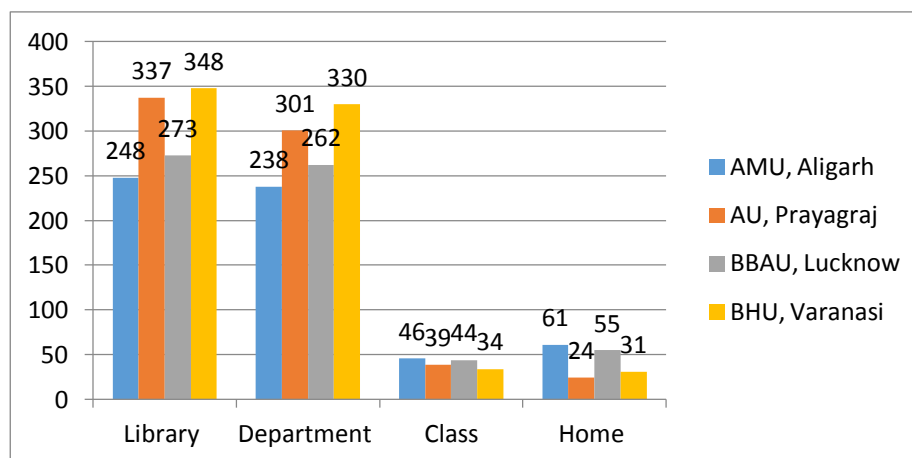


Figure: 4.3.7: Place of Library Access

4.3.8 Device of Library Access

Table 4.3.8 demonstrated the library access device by the users of the four different universities. In AMU, 67.4 % of users access library with personal computer, 81.6 % user access library from laptop, 38.9 %user’s access library with smartphones and 8.3 % user’s access library with a tablet. In AU, 100% highly positive received data that users access library with the personal computer, 91.5 %users access the library from the laptop, 15.1 %user’s access library with smart phones and 5 %users access the library from the tablet. In BBAU, 85.2 % of users access the library with a personal computer, 94.8 % of users access the library with a laptop, 26.1 % of users access the library with smart phones, and 5.5 %users access the library with a tablet. In BHU, 89.5 % of users access the library with a personal computer, 91.2 % of users access the library with a laptop, 14.7 % of users access the library with smart phones, and 3 %users access the library with a tablet.

Table 4.3.8: Device of Library Access

User Response	AMU	AU	BBAU	BHU
Personal Computer				
Yes	194 (67.4%)	344 (100%)	248 (85.2%)	335 (89.5%)
No	94 (32.6%)	0 (0%)	43 (14.8%)	39 (10.5%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=146.811; p=0.000; 0 cells have expected count less than 5.			
Laptop				
Yes	235 (81.6%)	315 (91.5%)	276 (94.8%)	341 (91.2%)
No	53 (18.4%)	29 (8.5%)	15 (5.2%)	33 (8.8%)

User Response	AMU	AU	BBAU	BHU
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=31.613; p=0.000; 0 cells have expected count less than 5.			
Smartphone				
Yes	112 (38.9%)	52 (15.1%)	76 (26.1%)	55 (14.7%)
No	176 (61.1%)	292 (84.9%)	215 (73.9%)	319 (85.3%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=69.749; p=0.000; 0 cells have expected count less than 5.			
Tablet				
Yes	24 (8.3%)	17 (5%)	16 (5.5%)	11 (3%)
No	263 (91.7%)	327 (95%)	275 (94.5%)	363 (97%)
Total	288 (100%)	344 (100%)	291 (100%)	374 (100%)
Chi-Square Results	Chi-Square=9.626; p=0.022; 0 cells have expected count less than 5.			

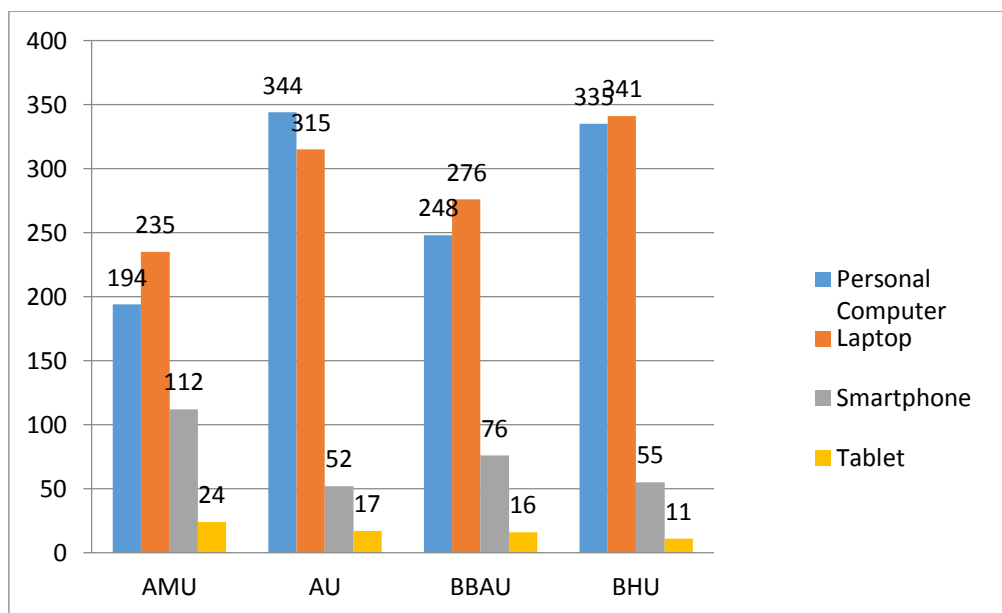


Figure 4.3.8: Device of Library Access

4.3.9 Participation in Awareness/Orientation Programme of Library

Table 4.3.9 demonstrates the access of users to the library resources. In AMU, 69 % of users had participated in the orientation program. In AU, 96 % of the users had participated in the orientation program. In BBAU, 92 % of the users had participated in the orientation program. In BHU, 89.5 % of the users had participated in the orientation program. Overall, 87.3 % of the users had participated in the orientation program.

Table 4.3.9: Participation in Awareness/Orientation Programme

University Name	Participation		Total
	Yes	No	
Aligarh Muslim University, Aligarh	199 (69%)	89 (31%)	288 (100%)
Allahabad University, Prayagraj	330 (96%)	14 (4%)	344 (100%)
Baba Saheb Bhim Rao Ambedkar University, Lucknow	268 (92%)	23 (8%)	291 (100%)
Banaras Hindu University, Varanasi	335 (89.5%)	39 (10.5%)	374 (100%)
Total	1132 (87.3%)	165 (12.7%)	1297 (100%)
Chi-Square Results	$\chi^2 = 116.787$ d.f. = 3 P = 0.00		

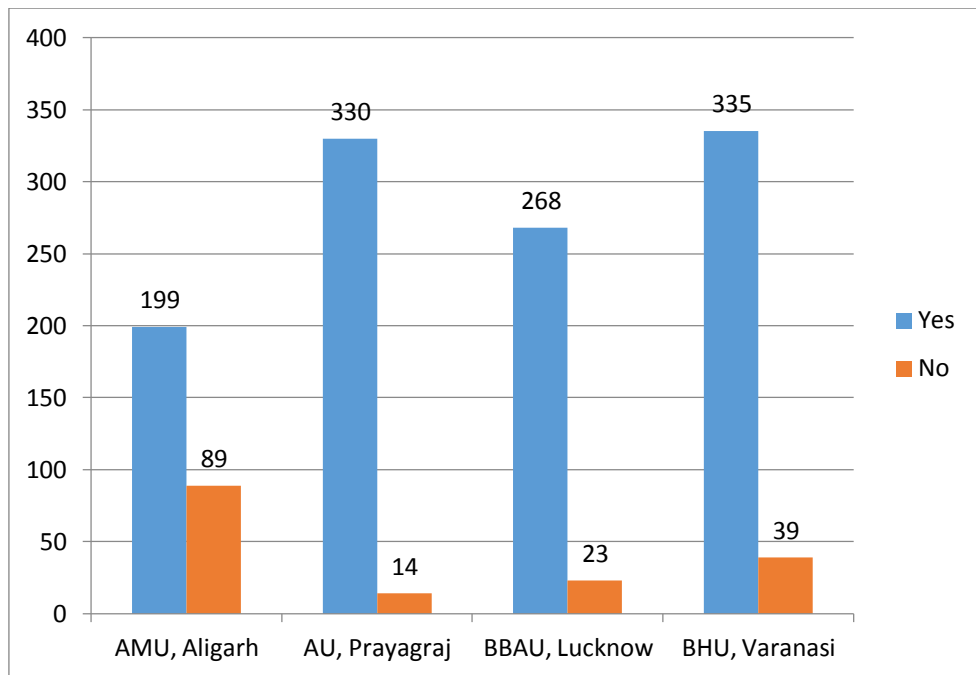


Figure 4.3.9: Participation in Awareness/Orientation Programme

4.3.10 Level of Awareness from the Orientation Programme

The data in Table 4.3.10 demonstrate the level of awareness that users gained after participating in the awareness/orientation program of the library. In AMU, out of 288 respondents, 60.8 % of users revealed that the orientation program was informative, 11.8 % of users showed that the orientation program was highly informative. In AU, out of 344 respondents, 77.9 % of users revealed that the orientation program was informative, 18% of users indicated that the orientation program was highly informative. In BBAU, out of 291 respondents, 71.1 % of users revealed that the orientation program was informative, 19.2% of users showed that the orientation program was highly informative. In BHU, out of 374 respondents, 77.8% of users revealed that the orientation program was informative, 7.2% of users revealed that the orientation program was highly informative. Overall, 72.6 % of users indicated that the orientation program was informative.

Table 4.3.10: Level of Awareness from the Orientation Programme

Name of the University	Status of respondents	Level of Awareness					Total
		Not informative	Least Informative	Partial Informative	Informative	Highly Informative	
AMU, Aligarh	N	23	0	8	175	34	240.0
	Within same university (%)	8.0	0.0	2.8	60.8	11.8	83.3
	Within overall user category (%)	79.3	0.0	44.4	18.6	19.0	82.0
AU, Prayagraj	N	2	2	0	268	62	334.0
	Within same university (%)	0.6	0.6	0.0	77.9	18.0	97.1
	Within overall user category (%)	6.9	25.0	0.0	28.5	34.6	88.1
BBAU, Lucknow	N	4	2	3	207	56	272.0
	Within same university (%)	1.4	0.7	1.0	71.1	19.2	93.5
	Within overall user category (%)	13.8	25.0	16.7	22.0	31.3	94.9
BHU, Varanasi	N	0	4	7	291	27	329.0
	Within same university (%)	0.0	1.1	1.9	77.8	7.2	88.0
	Within overall user category (%)	0.0	50.0	38.9	30.9	15.1	134.9
Total	N	29	8	18	941	179	1175.0
	Within same university (%)	2.2	0.6	1.4	72.6	13.8	90.6
	Within overall user category (%)	100	100	100	100	100	100.0

$\chi^2 = 100.873$ d.f. = 12 P = 0.00

Calculated the value of χ^2 was observed to be 100.873, and p value was 0.000 which is less than 0.05, meaning that user awareness from the awareness/orientation program of the library differs significantly.

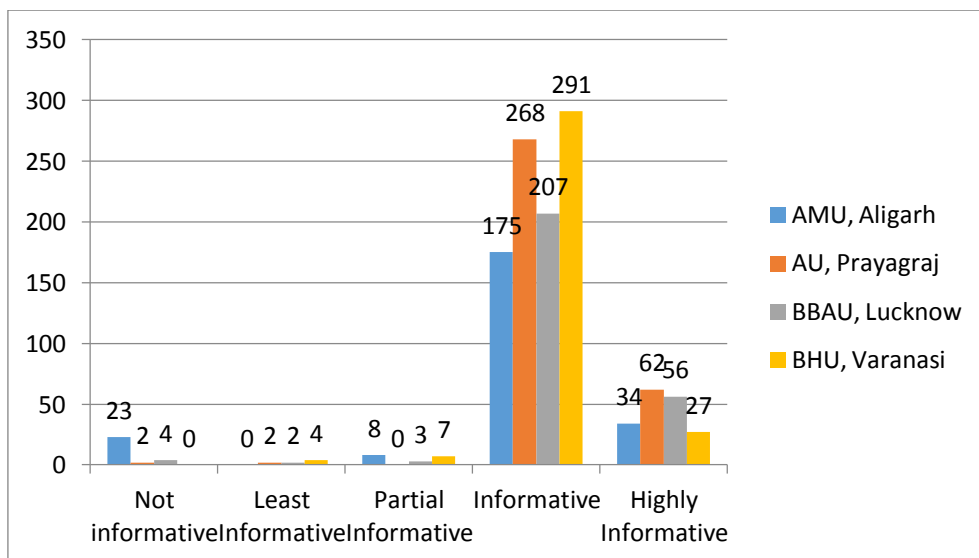


Figure 4.3.10: User Awareness from Orientation Programme

User's perception about Affect of service, Resources, and Infrastructure (LibQual+TM Tool)

4.4.1 Users' perception about Affect of Service

Table 4.4.1: User's perception about Affect of Service (AMU, Aligarh)

Item no	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.1.1	Library staff instil confidence in users	6.6461	1.49241	6.6631	1.33962	6.6944	1.44240	0.05	-0.05	-0.573	287	0.567	0.03	0.10	0.363	287	0.716
3.1.2	Library staff pays personal attention to the users	6.5258	1.46970	6.6376	1.37091	6.7014	1.39975	0.18	-0.07	-3.702	287	0.000	0.06	0.03	-2.809	287	0.005
3.1.3	Library staff is consistently courteous	6.5474	1.36291	6.6022	1.30901	6.7396	1.42093	0.19	0.06	-2.028	287	0.043	0.14	0.11	0.181	287	0.856
3.1.4	Library staff is always ready to respond to users' questions	6.5721	1.36126	6.6484	1.32918	6.7986	1.47962	0.23	0.12	-2.758	287	0.006	0.15	0.15	0.000	287	1.000
3.1.5	Library staff has competence/knowledge to answer users' questions	6.5590	1.30814	6.6430	1.32221	6.8264	1.35806	0.27	0.05	-3.282	287	0.001	0.18	0.04	0.373	287	0.710
3.1.6	Library staff is caring while dealing with the users	6.6276	1.25681	6.6461	1.28277	6.8438	1.43132	0.22	0.17	-0.736	287	0.462	0.20	0.15	-0.329	287	0.742
3.1.7	Library staff understands the needs of its users	6.5852	1.28225	6.6731	1.24950	6.6563	1.43010	0.07	0.15	-3.644	287	0.000	-0.02	0.18	-0.186	287	0.853
3.1.8	Library staff is always willing to help users	6.6554	1.27686	6.7124	1.23720	6.7708	1.53118	0.12	0.25	-2.390	287	0.017	0.06	0.29	4.221	287	0.000

3.1.9	Library staff displays reliability in handling users' service problems	6.5975	1.31700	6.6723	1.28192	6.7049	1.48384	0.11	0.17	-2.987	287	0.003	0.03	0.20	0.580	287	0.562
Total		6.60	1.35	6.66	1.30	6.75	1.44	0.15	0.09	-2.5	287	0.1	0.09	0.14	-1.3	287	0.1

The data presented in Table 4.4.1 indicate an assessment of service quality on the Library staff dimension with nine items in the library of AMU, Aligarh. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the library staff dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. It means that the library in AMU Aligarh fulfilled the minimum expectations of service on the library staff dimension.

The Service Adequacy Gap (SAG) was significant for 7 (out of 9) items as the p-value for all these items was smaller than 0.05. SAG was not notable/significant ($p > 0.05$) for 3.1.1 and 3.1.6. The Service Superiority Gap (SSG) was observed to be significant ($p < 0.05$) only for items 3.1.2 and 3.1.8. The significant SAG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of its users. But, the results related to SSG advisable that the perceived service performance is quite near to minimum service expected by the users.

Table 4.4.2: User's perception about Affect of Service (Allahabad University, Prayagraj)

Item no.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.1.1	Library staff in still confidence in users	6.94	1.46	6.76	1.32	6.76	1.35	-0.18	-0.11	3.2	343	0.0	0.00	0.03	3.2	343	0.0
3.1.2	Library staff pays personal attention to the users	6.65	1.40	6.63	1.29	6.73	1.17	0.08	-0.23	0.3	343	0.7	0.10	-0.12	-1.9	343	0.1
3.1.3	Library staff is consistently courteous	6.51	1.28	6.56	1.19	6.53	1.19	0.02	-0.09	-1.0	343	0.3	-0.03	0.00	-0.5	343	0.6
3.1.4	Library staff is always ready to respond to users' questions	6.55	1.22	6.53	1.15	6.60	1.20	0.05	-0.02	0.4	343	0.7	0.07	0.05	-1.3	343	0.2
3.1.5	Library staff has competence/knowledge to answer users' questions	6.52	1.10	6.58	1.20	6.50	1.09	-0.02	-0.01	-1.1	343	0.3	-0.08	-0.11	0.6	343	0.5
3.1.6	Library staff is caring while dealing with the users	6.60	1.07	6.58	1.17	6.62	1.15	0.02	0.08	0.4	343	0.7	0.04	-0.02	-0.6	343	0.5
3.1.7	Library staff understands the needs of its users	6.49	1.18	6.65	1.10	6.52	1.09	0.03	-0.09	-2.9	343	0.0	-0.13	-0.01	-0.5	343	0.6
3.1.8	Library staff is always willing to help users	6.59	1.16	6.56	1.13	6.59	1.15	0.00	-0.01	0.7	343	0.5	0.03	0.02	0.1	343	0.9
3.1.9	Library staff displays reliability in handling users' service problems	6.57	1.15	6.60	1.14	6.57	1.17	0.00	0.02	-0.6	343	0.5	-0.03	0.03	-0.2	343	0.9
Total		6.60	1.22	6.61	1.19	6.60	1.17	0.00	-0.05	-0.1	343	0.4	0.09	0.14	-0.1	343	0.5

The data presented in Table 4.4.2 indicate an assessment of service quality on the Affect of service dimension with nine items in the library of Allahabad University, Prayagraj. It is revealed from the data that the minimum services on all the items of the library staff dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. It means that the library in Allahabad University fulfilled the minimum expectations of service on the library staff dimension.

The Service Adequacy Gap (SAG) was significant only for 2 (out of 9) items as the p-value for all these items was smaller than 0.05. SAG was significant ($p < 0.05$) only for 3.1.1 and 3.1.7. The Service Superiority Gap (SSG) was observed to be significant ($p < 0.05$) only for items 3.1.1. The insignificant value for SAG and SSG for most items suggests that the perceived service concert performance is quite close to both the desired and the minimum service expected by the users.

Table 4.4.3: User's perception about Affect of Service (Dr. Baba Saheb Bhimrao Ambedkar University, Lucknow)

Item no.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.1.1	Library staff instill confidence in users	6.98	1.51	6.92	1.32	6.91	1.37	0.06	1.16	0.86	290	0.39	0.08	1.08	1.20	290	0.23
3.1.2	Library staff pays personal attention to the users	6.89	1.38	6.95	1.33	6.88	1.27	-0.07	0.92	-1.21	290	0.23	0.01	0.75	0.23	290	0.81
3.1.3	Library staff is consistently courteous	6.97	1.24	6.96	1.23	6.89	1.28	0.01	1.01	0.12	290	0.91	0.08	0.93	1.45	290	0.15
3.1.4	Library staff is always ready to respond to users' questions	6.91	1.35	6.95	1.36	6.81	1.27	-0.04	1.01	-0.64	290	0.53	0.10	0.86	1.91	290	0.06
3.1.5	Library staff has competence/knowledge to answer users' questions	6.94	1.28	6.85	1.29	6.81	1.22	0.09	1.04	1.52	290	0.13	0.13	0.92	2.43	290	0.02
3.1.6	Library staff is caring while dealing with the users	6.97	1.21	6.84	1.24	6.91	1.21	0.13	0.90	2.41	290	0.02	0.06	0.72	1.39	290	0.17
3.1.7	Library staff understands the needs of its users	6.97	1.25	6.88	1.20	6.93	1.14	0.09	0.81	1.88	290	0.06	0.04	0.83	0.85	290	0.39
3.1.8	Library staff is always willing to help users	6.97	1.15	7.00	1.12	6.84	1.22	-0.02	0.84	-0.49	290	0.62	0.13	0.77	2.90	290	0.00
3.1.9	Library staff displays reliability in handling users' service problems	7.01	1.21	7.01	1.23	6.92	1.18	0.00	0.90	0.06	290	0.95	0.09	0.73	2.08	290	0.04
Total		6.96	1.29	6.93	1.26	6.88	1.24	0.03	0.96	0.50	290	0.43	0.08	0.84	1.61	290	0.21

The data presented in Table 4.18 indicate an assessment of service quality on Affect of Service dimension with nine items in the library of Dr. Baba Saheb Bhimrao Ambedkar University, Lucknow. It is revealed from the data that the minimum services on all the items of the library staff dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. It means that the library in Baba Saheb Bhimrao Ambedkar University, Lucknow fulfilled the minimum expectations of service on library staff dimension.

The Service Adequacy Gap (SAG) was significant for 2 (out of 9) items as the p-value for all these items was smaller than 0.05. SAG was significant ($p < 0.05$) for 3.1.6 and 3.1.7. The Service Superiority Gap (SSG) was observed to be significant ($p < 0.05$) only for items 3.1.4, 3.1.5, 3.1.8, and 3.1.9. The insignificant value for SAG and SSG for most items suggests that the perceived service concert performance is quite close to both the desired and the minimum service expected by the users.

Table 4.4.4: User's perception about Affect of Service (BHU, Varanasi)

Item no	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.1.1	Library staff instill confidence in users	6.26	1.27	6.34	1.22	6.27	1.26	-0.07	0.95	-1.53	373	0.13	-0.01	0.79	-0.13	373	0.90
3.1.2	Library staff pays personal attention to the users	6.20	1.38	6.30	1.34	6.17	1.20	-0.10	1.00	-1.97	373	0.05	0.03	0.81	0.70	373	0.48
3.1.3	Library staff is consistently courteous	6.17	1.34	6.18	1.24	6.13	1.26	-0.02	0.95	-0.33	373	0.74	0.04	0.56	1.30	373	0.19
3.1.4	Library staff is always ready to respond to users' questions	6.19	1.27	6.25	1.25	6.18	1.18	-0.07	0.90	-1.43	373	0.15	0.01	0.64	0.16	373	0.87
3.1.5	Library staff has competence/knowledge to answer users' questions	6.20	1.19	6.32	1.21	6.19	1.20	-0.12	0.75	-3.15	373	0.00	0.01	0.40	0.52	373	0.61
3.1.6	Library staff is caring while dealing with the users	6.31	1.18	6.33	1.19	6.27	1.24	-0.02	0.71	-0.51	373	0.61	0.04	0.57	1.45	373	0.15
3.1.7	Library staff understands the needs of its users	6.28	1.18	6.34	1.13	6.34	1.16	-0.05	0.72	-1.43	373	0.15	-0.05	0.59	-1.76	373	0.08
3.1.8	Library staff is always willing to help users	6.25	1.21	6.40	1.15	6.19	1.19	-0.15	0.93	-3.12	373	0.00	0.06	0.55	2.24	373	0.03
3.1.9	Library staff displays reliability in handling users' service problems	6.26	1.22	6.41	1.10	6.25	1.14	-0.16	0.86	-3.51	373	0.00	0.01	0.60	0.34	373	0.73
Total		6.24	1.25	6.32	1.20	6.22	1.20	-0.08	0.86	-1.89	373	0.20	0.02	0.61	0.54	373	0.45

The data presented in Table 4.4.4 indicate an assessment of service quality on Affect of Service dimension with nine items in the library of BHU, Varanasi. It is revealed from the data that the minimum services on all the items of the library staff dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. It means that the library in Baba Saheb Bhimrao Ambedkar University, Lucknow fulfilled the minimum expectations of service on library staff dimension.

The Service Adequacy Gap (SAG) was significant for 4 (out of 9) items as the p-value for all these items was smaller than 0.05. SAG was significant ($p < 0.05$) for 3.1.2, 3.1.5, 3.1.8 and 3.1.9. The Service Superiority Gap (SSG) was observed to be notable significant ($p < 0.05$) only for items 3.1.7 and 3.1.8. The insignificant value for SAG and SSG for most items suggests that the perceived service concert performance is close to the desired and minimum service expected by the users.

4.4.5 Users' perception about Information Control in Library

Table 4.4.5: Users' perception about Information Control in Library (AMU, Aligarh)

Item no	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.2.1	Electronic resources of the library are accessible from my home or office	6.54	1.42	6.67	1.38	6.52	1.41	-0.13	0.98	-4.87	288	0.00	0.02	0.83	1.04	288	0.01
3.2.2	Web site of library enables me to locate information on my own	6.54	1.41	6.62	1.38	6.49	1.43	-0.08	0.93	-3.24	288	0.27	0.05	0.83	2.14	288	0.29
3.2.3	Library has printed materials, I need for my work	6.58	1.32	6.71	1.30	6.56	1.32	-0.13	0.86	-5.30	288	0.00	0.02	0.75	0.81	288	0.16
3.2.4	Library has electronic resources, I need for my work	6.56	1.35	6.66	1.31	6.58	1.31	-0.10	0.83	-4.29	288	0.00	-0.02	0.70	-1.03	288	0.82
3.2.5	Library has modern equipment that lets me have easy access to the needed	6.56	1.32	6.67	1.29	6.57	1.31	-0.11	0.98	-4.01	288	0.00	-0.01	0.78	-0.50	288	0.01
3.2.6	Library has easy-to-use access tools that allow me to find information on my own	6.57	1.29	6.65	1.24	6.58	1.30	-0.08	0.88	-3.40	288	0.00	-0.01	0.78	-0.50	288	0.00
3.2.7	Library makes the information easily accessible for independent search	6.58	1.29	6.63	1.26	6.54	1.29	-0.05	0.90	-2.04	288	0.04	0.04	0.74	1.99	288	0.53
3.2.8	Library has print and/or electronic journal collections, I require for my work	6.55	1.34	6.59	1.28	6.53	1.29	-0.04	0.91	-1.72	288	0.09	0.01	0.75	0.59	288	0.04
Total		6.6	1.3	6.7	1.3	6.5	1.3	-0.1	0.9	-3.6	288.0	0.1	0.0	0.8	0.6	288.0	0.2

The data presented in Table 4.4.5 indicate service quality assessment on the Information Control dimension with eight items for the library at AMU Aligarh. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. The libraries fulfilled the minimum service expectations on the Information Control dimension.

The Service Adequacy Gap (SAG) is significant for all the items (except 3.2.2) as the p-value for these items is greater than 0.05. The Service Superiority Gap (SSG) was also observed to be significant for 4 (out of 8) items ($p < 0.05$). For items 3.2.2, 3.2.3, 3.2.4, and 3.2.7, the Service Superiority Gap (SSG) was not observed to be significant ($p > 0.05$). The significant SAG for all items and SSG for a majority of items suggests that the library at AMU Aligarh is far from fulfilling its users' desired level of information requirements.

Table 4.4.6: Users' perception about Information Control in Library (Allahabad University, Prayagraj)

Item no.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.2.1	Electronic resources of the library are accessible from my home or office	6.49	1.42	6.61	1.38	6.49	1.41	-0.11	0.98	-4.87	343	0.02	0.00	0.83	1.04	343	0.94
3.2.2	Web site of library enables me to locate information on my own	6.51	1.41	6.60	1.38	6.57	1.43	-0.07	0.93	-3.24	343	0.11	-0.05	0.83	2.14	343	0.19
3.2.3	Library has printed materials, I need for my work	6.59	1.32	6.66	1.30	6.56	1.32	-0.07	0.86	-5.30	343	0.13	0.02	0.75	0.81	343	0.47
3.2.4	Library has electronic resources, I need for my work	6.54	1.35	6.53	1.31	6.53	1.31	-0.02	0.83	-4.29	343	0.59	0.01	0.70	-1.03	343	0.70
3.2.5	Library has modern equipment that lets me have easy access to the needed information	6.57	1.32	6.55	1.29	6.61	1.31	-0.07	0.98	-4.01	343	0.64	-0.04	0.78	-0.50	343	0.39
3.2.6	Library has easy-to-use access tools that allow me to find information on my own	6.46	1.29	6.54	1.24	6.47	1.30	0.04	0.88	-3.40	343	0.12	-0.01	0.78	-0.50	343	0.89
3.2.7	Library makes the information easily accessible for independent search	6.59	1.29	6.55	1.26	6.43	1.29	-0.01	0.90	-2.04	343	0.42	0.16	0.74	1.99	343	0.00
3.2.8	Library has print and/or electronic journal collections, I require for my work	6.46	1.34	6.47	1.28	6.42	1.29	-0.04	0.91	-1.72	343	0.85	0.04	0.75	0.59	343	0.36
Total		6.53	1.34	6.56	1.31	6.51	1.33	-0.04	0.91	-3.61	343	0.36	0.02	0.77	0.57	343	0.49

The data presented in Table 4.4.6 indicate an assessment of service quality on the Information Control dimension with eight items for the library at Allahabad University. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. The libraries fulfilled the minimum service expectations on the Information Control dimension.

The Service Adequacy Gap (SAG) is significant only for one item (3.2.1) as the p-value for this item is greater than 0.05. The Service Superiority Gap (SSG) was also observed to be significant only for 3.2.7. The insignificant values for SAG and SSG for a majority of items suggests that the library at the Allahabad University indicates that the perceived service concert performance is quite near to close for both the desired as well as the minimum service expected by the users.

Table 4.4.7: Users' perception about Information Control in Library (Dr. Baba Saheb Bhimrao Ambedkar University, Lucknow)

Item no.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.2.1	Electronic resources of the library are accessible from my home or office	7.02	1.434	7.04	1.28	6.89	1.29	-0.02	0.98	-0.32	290	0.74	0.13	0.94	2.43	290	0.01
3.2.2	Web site of library enables me to locate information on my	6.91	1.29	6.99	1.26	6.87	1.27	-0.08	0.93	-1.42	290	0.15	0.04	0.70	1.01	290	0.32
3.2.3	Library has printed materials, I need for my work	6.92	1.32	6.92	1.30	6.85	1.21	-0.00	0.86	-0.06	290	0.95	0.06	0.80	1.46	290	0.14
3.2.4	Library has electronic resources, I need for my work	6.83	1.35	6.93	1.31	6.90	1.20	-0.09	0.83	-2.35	290	0.02	-0.06	0.72	-1.61	290	0.11
3.2.5	Library has modern equipment that lets me have easy access to the needed information	6.93	1.32	6.92	1.29	6.90	1.16	0.01	0.98	0.15	290	0.88	0.03	0.81	0.65	290	0.51
3.2.6	Library has easy-to-use access tools that allow me to find information on my own	6.95	1.29	6.94	1.24	6.82	1.20	0.01	0.88	0.19	290	0.85	0.12	0.77	2.74	290	0.01
3.2.7	Library makes the information easily accessible for independent search	6.91	1.29	6.89	1.26	6.86	1.16	0.01	0.90	0.33	290	0.74	0.04	0.77	0.92	290	0.36
3.2.8	Library has print and/or electronic journal collections, I require for my work	6.88	1.34	6.81	1.28	6.80	1.16	0.07	0.91	2.27	290	0.21	0.08	0.79	1.86	290	0.06
Total		6.92	1.33	6.93	1.28	6.86	1.21	-0.01	0.91	-0.15	290.00	0.57	0.06	0.79	1.18	290	0.19

The data presented in Table 4.4.7 indicate an assessment of service quality on the Information Control dimension with eight items for the library at Dr. Baba Saheb Bhimrao Ambedkar University. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. The libraries fulfilled the minimum service expectations on the Information Control dimension.

The Service Adequacy Gap (SAG) is significant only for one item (3.2.4) as the p-value is greater than 0.05. The Service Superiority Gap (SSG) was observed to be significant only for three items (3.2.1, 3.2.6, and 3.2.8). The insignificant values for SAG and SSG for a majority of items suggest that the library at the Baba Saheb Bhimrao Ambedkar University, Lucknow, indicates that the perceived service concert performance is quite close for both the desired as well as the minimum service expected by the users.

Table 4.4.8: Users' perception about Information Control in Library (BHU, Varanasi)

Item No.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.2.1	Electronic resources of the library are accessible from my home or office	6.18	1.33	6.27	1.31	6.10	1.41	-0.09	0.98	-2.15	373	0.03	0.07	0.83	1.69	373	0.09
3.2.2	Web site of library enables me to locate information on my own	6.17	1.34	6.28	1.34	6.03	1.46	-0.11	0.93	-2.25	373	0.02	0.14	0.81	3.50	373	0.00
3.2.3	Library has printed materials, I need for my work	6.24	1.21	6.35	1.23	6.85	1.26	-0.12	0.86	-3.25	373	0.00	0.04	0.57	1.42	373	0.15
3.2.4	Library has electronic resources, I need for my work	6.19	1.24	6.33	1.22	6.90	1.23	-0.14	0.83	-3.40	373	0.00	-0.04	0.61	-1.18	373	0.24
3.2.5	Library has modern equipment that lets me have easy access	6.17	1.23	6.34	1.20	6.90	1.29	-0.17	0.98	-3.80	373	0.00	0.06	0.65	1.82	373	0.07
3.2.6	Library has easy-to-use access tools that allow me to find	6.20	1.20	6.28	1.17	6.82	1.23	-0.08	0.88	-2.05	373	0.04	0.03	0.59	1.22	373	0.22
3.2.7	Library makes the information easily accessible for independent search	6.19	1.17	6.29	1.20	6.86	1.15	-0.11	0.90	-2.60	373	0.01	-0.02	0.49	-0.63	373	0.53
3.2.8	Library has print and/or electronic journal collections, I require for my	6.27	1.23	6.26	1.15	6.80	1.27	0.01	0.91	0.25	373	0.81	0.01	0.61	0.34	373	0.73
Total		6.20	1.24	6.30	1.23	6.66	1.29	-0.10	0.91	-2.44	373	0.11	0.04	0.65	1.02	373.00	0.25

The data presented in Table 4.4.8 indicate an assessment of service quality on the Information Control dimension with eight items for the library at BHU, Varanasi. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. The libraries fulfilled the minimum service expectations on the Information Control dimension.

The Service Adequacy Gap (SAG) is significant for 7 items as the p-value is greater than 0.05. The Service Superiority Gap (SSG) was observed to be significant only for two items (3.2.1 and 3.2.2). The insignificant values for SAG and SSG for a majority of items suggest that the library at the Baba Saheb Bhimrao Ambedkar University, Lucknow, indicates that the perceived service concert performance is quite close for both the desired as well as the minimum service expected by the users.

4.4.9 Users' perception about Library as a Place

Table 4.4.9: Users' perception about 'Library as a Place' (AMU Aligarh)

Item No.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.3.1	Library has space that inspires study and learning	6.65	1.28	6.61	1.31	6.66	1.26	0.04	0.84	1.88	288	0.060	-0.01	0.68	-0.41	288	0.685
3.3.2	Library has quiet space for individual activities	6.58	1.36	6.66	1.31	6.60	1.29	-0.07	0.96	-2.79	288	0.005	-0.02	0.77	-0.90	288	0.369
3.3.3	Library has comfortable and inviting location	6.66	1.32	6.72	1.29	6.66	1.30	-0.06	0.91	-2.28	288	0.022	0.01	0.67	0.33	288	0.742
3.3.4	Library is a gateway for study, learning and research	6.64	1.32	6.69	1.29	6.65	1.26	-0.05	0.90	-2.09	288	0.037	-0.01	0.77	-0.36	288	0.717
3.3.5	Library has community spaces for group learning and group study	6.59	1.31	6.63	1.31	6.61	1.29	-0.04	0.90	-1.60	288	0.110	-0.02	0.62	-1.12	288	0.261
Total		6.62	1.32	6.66	1.30	6.64	1.28	-0.04	0.09	-1.38	288	0.05	-0.01	0.07	-0.49	288	0.55

The data presented in Table 4.4.9 indicate service quality assessment at the library of AMU Aligarh on 'Library as a place' with five items. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. It means that the libraries fulfilled the minimum service expectations on the Information Control dimension.

The Service Adequacy Gap (SAG) was significant for all items as the p-value for all the items was smaller than 0.05. The Service Superiority Gap (SSG) was observed to be notable significant ($p < 0.05$) only for items 3.1.2 and 3.1.5. The significant SAG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of its users. But the results related to SSG advisable indicate that the perceived service performance is quite close to the minimum service expected by the users.

Table 4.4.10: Users' perception about 'Library as a Place' (Allahabad University, Prayagraj)

Item No.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.3.1	Library has space that inspires study and learning	6.53	1.10	6.41	1.16	6.58	1.12	0.12	0.94	2.34	343	0.02	-0.05	0.69	-1.24	343	0.22
3.3.2	Library has quiet space for individual activities	6.50	1.13	6.50	1.10	6.47	1.12	-0.02	0.88	-0.24	343	0.81	0.02	0.73	0.44	343	0.66
3.3.3	Library has comfortable and inviting location	6.56	1.14	6.52	1.20	6.51	1.20	0.43	1.02	-0.78	343	0.43	0.05	0.80	1.21	343	0.23
3.3.4	Library is a gateway for study, learning and research	6.47	1.20	6.61	1.20	6.52	1.14	-0.14	0.900.99	-2.59	343	0.01	-0.05	0.81	-1.06	343	0.29
3.3.5	Library has community spaces for group learning and group study	6.56	1.21	6.49	1.20	6.66	1.15	0.07	0.81	-1.53	343	0.12	-0.10	0.69	-2.72	343	0.01
Total		6.52	1.16	6.51	1.17	6.55	1.15	0.09	0.91	-0.56	343	0.28	-0.03	0.74	-0.67	343	0.28

The data presented in Table 4.4.10 indicate service quality assessment at the library of Allahabad University on 'Library as a place' with five items. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. It means that the libraries fulfilled the minimum service expectations on the Information Control dimension.

The Service Adequacy Gap (SAG) was significant for 2 items (3.3.1 and 3.3.4) as the items' p-value was smaller than 0.05. The Service Superiority Gap (SSG) was observed to be notable significant ($p < 0.05$) only for one item (3.3.5). The insignificant SAG for a majority of items suggests the perceived service performance is quite close to the minimum service expected by the users.

Table 4.4.11: Users' perception about 'Library as a Place' (Dr. Baba Saheb Bhimrao Ambedkar University, Lucknow)

Item. No.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.3.1	Library has space that inspires study and learning	6.88	1.10	6.81	1.16	6.90	1.12	0.06	0.94	1.24	290	0.22	-0.02	0.69	-0.42	290	0.66
3.3.2	Library has quiet space for individual activities	6.78	1.13	6.88	1.10	6.81	1.12	-0.09	0.88	-1.39	290	0.17	-0.03	0.73	-0.62	290	0.53
3.3.3	Library has comfortable and inviting location	6.94	1.14	6.95	1.20	6.94	1.20	-0.01	1.02	-0.11	290	0.91	-0.00	0.80	-0.08	290	0.94
3.3.4	Library is a gateway for study, learning and research	6.90	1.20	6.91	1.20	6.84	1.14	-0.01	0.900.99	-0.19	290	0.91	-0.05	0.81	1.22	290	0.22
3.3.5	Library has community spaces for group learning and group study	6.85	1.21	6.86	1.20	6.81	1.15	-0.01	0.81	-0.22	290	0.83	-0.03	0.69	0.76	290	0.45
Total		6.9	1.2	6.9	1.2	6.9	1.1	0.0	0.9	-0.1	290	0.6	0.0	0.7	0.2	290	0.6

The data presented in Table 4.4.11 indicate service quality assessment at the library of Dr. Baba Saheb Bhimrao Ambedkar University Lucknow on 'Library as a place' with five items. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. The libraries fulfilled the minimum anticipated service expectations on the Library as a Place dimension.

The Service Adequacy Gap (SAG) and Service Superiority Gap (SSG) were insignificant for all items as the p-value for all the items was greater than 0.05. The insignificant SAG for a majority of items suggests the perceived service performance is quite close to the minimum service expected by the users.

Table 4.4.12: Users' perception about 'Library as a Place' (BHU, Varanasi)

Item No.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance		Service Adequacy		Paired T value	df	P value	Service Superiority		Paired T Value	df	P value
		A		B		C		(C-A)					(C-B)				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD				Mean	SD			
3.3.1	Library has space that inspires study and learning	6.29	1.10	6.29	1.16	6.28	1.12	-0.00	0.94	0.07	373	0.94	0.00	0.69	0.00	373	0.76
3.3.2	Library has quiet space for individual activities	6.23	1.13	6.28	1.10	6.25	1.12	-0.06	0.88	-1.17	373	0.24	-0.02	0.73	-0.53	373	0.59
3.3.3	Library has comfortable and inviting location	6.25	1.14	6.41	1.20	6.29	1.20	-0.16	1.02	-3.62	373	0.00	-0.03	0.80	-1.15	373	0.25
3.3.4	Library is a gateway for study, learning and research	6.31	1.20	6.32	1.20	6.26	1.14	-0.01	0.900.99	-0.21	373	0.84	0.05	0.81	1.50	373	0.13
3.3.5	Library has community spaces for group learning and group study	6.27	1.21	6.32	1.20	6.25	1.15	-0.04	0.81	-1.35	373	0.18	0.02	0.69	1.02	373	0.31
Total		6.3	1.2	6.3	1.2	6.3	1.1	-0.1	0.9	-1.3	373	0.4	0.0	0.7	0.2	373	0.4

The data presented in Table 4.4.12 indicate service quality assessment at the library of Baba Saheb Bhimrao Ambedkar University Lucknow on 'Library as a place' with five items. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap. It is revealed from the data that the minimum services on all the items of the Information Control dimension mentioned in column A surpassed the theoretical mean score of 5.0. A similar trend was observed in the case of desired services as shown in column B and perceived services as shown in column C. It means that the libraries fulfilled the minimum anticipated service expectations on Library as a Place dimension.

The Service Adequacy Gap (SAG) was significant only for one item (3.3.3), and Service Superiority Gap (SSG) was insignificant for all items as the p-value for all the items was greater than 0.05. The insignificant SAG and SSG values for most items suggest the perceived service performance is quite close to desired and minimum service expected by the users.

4.4.13 Inter Library GAP analysis SAG (Service Adequacy Gap) and (Service Superiority Gap) SSG of service quality in AMU, AU, BBAU, and BHU on LibQual+ Tm Dimensions

In this section, a result has been made to analyze the data pertaining to the items responded on Affect of service dimensions of Libqual+TM among the libraries of AMU, Aligarh, BHU, Varanasi AU, Prayagraj, and BBAU, Lucknow. The mean and standard deviation values for each service quality item have been computed. The gaps in service adequacy were calculated by deducting perceived service values from the minimum service values, and gaps on service superiority were calculated by deducting perceived service values from desired service value.

Table 4.4.14 Gap Analysis (Service Adequacy Gap-SAG) among the AMU, AU, BBAU and BHU university libraries on LibQual+TM Dimensions

(LibQual+TM Dimensions)	AMU				AU				BBAU				BHU			
	(N=288)				(N=344)				(N=291)				(N=374)			
	Mean	t	df	p	Mean	t	df	p	Mean	t	df	p	Mean	t	df	p
Affect of Service	0.16	-2.5	287	0.1	0.02	-0.1	343	0.4	0.03	0.50	290	0.43	-0.08	-1.89	373	0.20
Information Control	-0.1	-3.6	288	0.1	-0.04	-3.61	343	0.36	-0.01	-0.15	290	0.57	-0.10	-2.44	373	0.11
Library As Place	-0.04	-1.38	288	0.05	0.09	-0.56	343	0.28	0.01	-0.1	290	0.6	-0.1	-1.3	373	0.4

Table 4.4.15 Gap Analysis (Service Superiority Gap-SAG) among the AMU, AU, BBAU and BHU university libraries on LibQual+TM Dimensions

(LibQual+TM Dimensions)	AMU				AU				BBAU				BHU			
	(N=288)				(N=344)				(N=291)				(N=374)			
	Mean	t	df	p	Mean	t	df	p	Mean	t	df	p	Mean	t	df	p
Affect of Services	0.09	-1.3	287	0.1	0.09	-0.1	343	0.5	0.08	1.61	290	0.21	0.02	0.54	373	0.45
Information Control	0.09	0.6	288	0.2	0.02	0.57	343	0.49	0.06	1.18	290	0.19	0.04	1.02	373	0.25
Library As Place	-0.01	-0.49	288	0.55	-0.03	-0.67	343	0.28	0.01	0.2	290	0.6	0.01	0.2	373	0.4

Table 4.4.14 highlighted the *service adequacy gap* among the AMU, AU, BBAU, and BHU universities under study. With regard to *Affect of Service* dimension, the AMU gaps were not significant in (T= -2.3, d.f. =287 and P=0.1) and AU (T= -0.1, d.f.=343, P=0.5). On the other hand, BBAU and BHU gaps were revealed significant in (T= 1.61, d.f.= 290, P= 0.21) and (T= 0.54, d.f.= 373, P= 0.45)

With the reference of *Information control* dimension, among the universities, gaps were found different in significant values in the universities i.e. AMU (T= -1.3, d.f. = 288, P= 0.2) and AU (T= -0.57, d.f. = 343. P= 0.49). On the other hand other the BBAU and BHU the gaps were found significant in (T= 1.18, d.f. = 290, p=0.19) and (T= -0.2 d.f. = 373, P= 0.04).

In case of *library as place* dimension, among the universities, gaps were revealed significant in AMU (T= -0.49, d.f. =288, P= 0.55) and AU (T= -0.67, d.f. =343, P= 0.28). on the other universities the gaps were significant values in BBAU (T= 0.2, d.f.=290, P= 0.6) and BHU (T= 0.2, d.f. = 373, P=0.4).

The table 4.4.15 expresses the *Service Superiority Gap (SSG)* among the universities under the study. With reference of *Affect of Service* between the universities, the gaps were found significant in all the respondents universities, i.e. AMU (T= -1.3, d.f.= 287, and P=0.1), AU (T= 0.1, d.f. =343 and P= 0.5), BBAU (T= 1.61, d.f. = 290 and P= 0.21) and BHU (T= 0.54 d.f. =373, P=0.45)

In case of *Information control* Dimensions, among the all universities, the gaps were found significant in AMU (T= 0.6, d.f. = 288, and P=0.2) and AU (T= 0.57, d.f.= 343, and P=0.49). On the other hand the universities the gaps were found significant in both of the universities, i.e. BBAU (T= 1.18, d.f. = 290, and P= 0.19) and BHU (T= 1.02, d.f. = 373, and P= 0.25)

With regard to *library as place* dimensions, among the universities, the gaps were found significant in AMU (T= -0.49, d.f.=288, P=0.55) , AU (T= -0.67, d.f.=343, P=0.28), BBAU (T= 0.2, d.f.= 290, P=0.6) and BHU (T= 0.2, d.f.= 373, P=0.4)

The table 4.4.16: Overall gap Analysis among the AMU, AU, BBAU and BHU universities library on LibQual +TM dimensions:

AMU (n= 288)		AU (n= 344)		BBAU (n= 291)		BHU (n= 374)	
Service Adequacy	Service Superiority	Service Adequacy	Service Superiority	Service Adequacy	Service Superiority	Service Adequacy	Service Superiority
0.1905	0.057	0.0087	-0.0009	-0.0050	-0.0219	0.0842	-0.0219

The table 4.4.16 demonstrates the overall Gap analysis among all four universities library AMU, AU, BBAU, and BHU. The AMU (Service Adequacy = 0.1905 and Service Superiority = 0.4268) was much ahead in all the aspects of service quality as compared to other universities, namely AU (Service Adequacy = 0.0087 and Service Superiority = -0.0009), BBAU (Service Adequacy = -0.0050 and Service Superiority = -0.0219) and BHU (Service Adequacy = 0.0842 and Service Superiority = -0.0219) meaning that the users were happy with the library of AMU as it fulfilled their information requirements on priority basis as compared to the libraries of other universities.

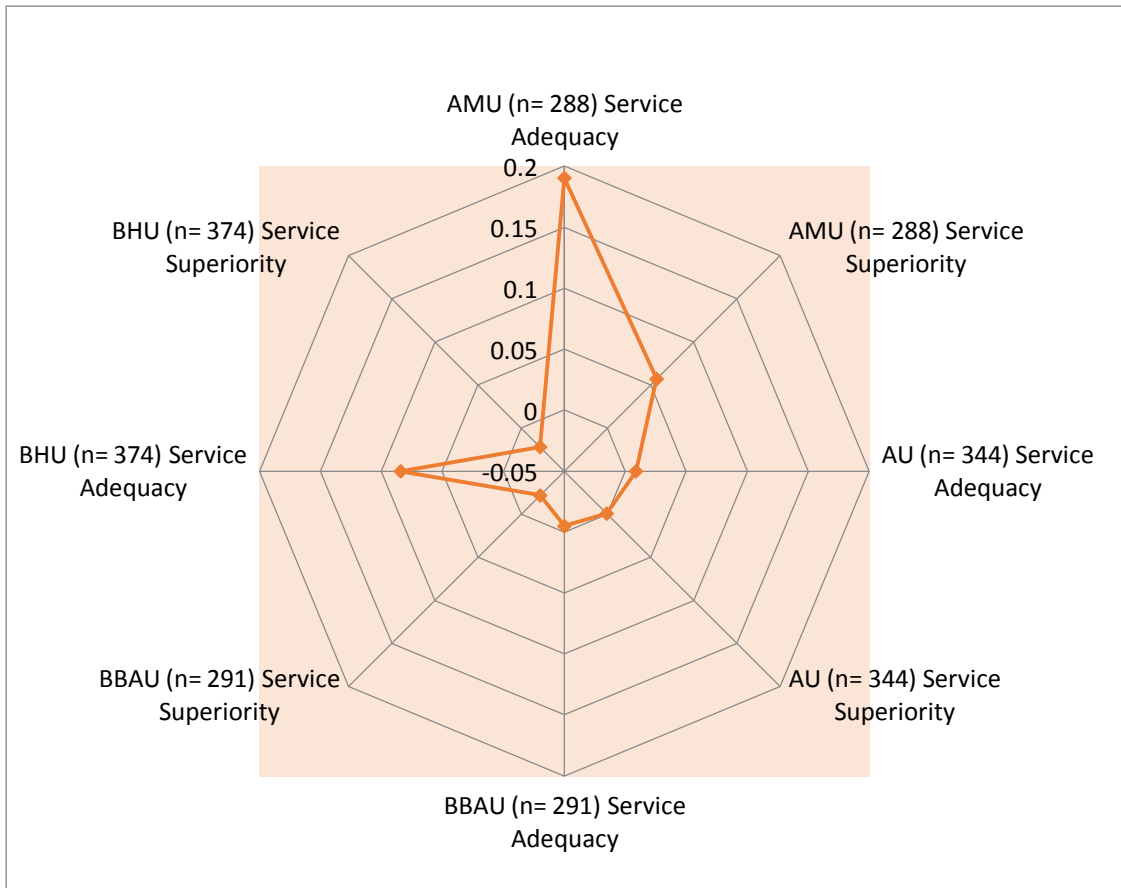


Figure 4.4.16: revealed the overall gap Analysis among the AMU, AU, BBAU and BHU universities library on LibQual +TM dimensions:

4.4.17 the comparative analysis of service quality in AMU, AU, BBAU, BHU Universities library on LibQual +Tm dimensions

Table 4.4.17 comparative analysis of service quality in AMU, AU, BBAU, BHU Libraries on LibQual +Tm dimensions

Item no	Service quality Item	AMU (N=288)						AU (N=344)						BBAU (N=291)						BHU (N=374)					
		Minimum		Desired		Perceived		Minimum		Desired		Perceived		Minimum		Desired		Perceived		Minimum		Desired		Perceived	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
AS	<i>*Affect of Service</i>	6.59	1.35	6.65	1.3	6.74	1.44	6.6	1.22	6.6	1.18	6.6	1.17	6.95	1.28	6.98	1.2	6.87	1.24	6.23	1.24	6.31	1.2	6.21	1.2
AS-1	Library staff instill confidence in users	6.6461	1.49241	6.6631	1.33962	6.6944	1.44240	6.94	1.46	6.76	1.32	6.76	1.35	6.98	1.51	6.92	1.3	6.91	1.37	6.26	1.27	6.34	1.2	6.27	1.26
AS-2	Library staff pays personal attention to the users	6.5258	1.46970	6.6376	1.37091	6.7014	1.39975	6.65	1.40	6.63	1.29	6.73	1.17	6.89	1.38	6.95	1.3	6.88	1.27	6.20	1.38	6.30	1.3	6.17	1.20
AS-3	Library staff is consistently courteous	6.5474	1.36291	6.6022	1.30901	6.7396	1.42093	6.51	1.28	6.56	1.19	6.53	1.19	6.97	1.24	6.96	1.2	6.89	1.28	6.17	1.34	6.18	1.2	6.13	1.26
AS-4	Library staff is always ready to respond to users" questions	6.5721	1.36126	6.6484	1.32918	6.7986	1.47962	6.55	1.22	6.53	1.15	6.60	1.20	6.91	1.35	6.95	1.3	6.81	1.27	6.19	1.27	6.25	1.2	6.18	1.18

AS-5	Library staff has competence/knowledge to answer users' questions	6.559 0	1.30 814	6.643 0	1.32 221	6.82 64	1.358 06	6.52	1.10	6.58	1.20	6.50	1.09	6.94	1.28	6.85	1.2 9	6.81	1.22	6.20	1.19	6.32	1.2 1	6.19	1.2 0
AS-6	Library staff is caring while dealing with the users	6.627 6	1.25 681	6.646 1	1.28 277	6.84 38	1.431 32	6.60	1.07	6.58	1.17	6.62	1.15	6.97	1.21	6.84	1.2 4	6.91	1.21	6.31	1.18	6.33	1.1 9	6.27	1.2 4
AS-7	Library staff understands the needs of its users	6.585 2	1.28 225	6.673 1	1.24 950	6.65 63	1.430 10	6.49	1.18	6.65	1.10	6.52	1.09	6.97	1.25	6.88	1.2 0	6.93	1.14	6.28	1.18	6.34	1.1 3	6.34	1.1 6
AS-8	Library staff is always willing to help users	6.655 4	1.27 686	6.712 4	1.23 720	6.77 08	1.531 18	6.59	1.16	6.56	1.13	6.59	1.15	6.97	1.15	7.00	1.1 2	6.84	1.22	6.25	1.21	6.40	1.1 5	6.19	1.1 9
AS-9	Library staff displays reliability in handling users' service problems	6.597 5	1.31 700	6.672 3	1.28 192	6.70 49	1.483 84	6.57	1.15	6.60	1.14	6.57	1.17	7.01	1.21	7.01	1.2 3	6.92	1.18	6.26	1.22	6.41	1.1 0	6.25	1.1 4
IC	* Information Control	6.56	1.34	6.65	1.3	6.54	1.33	6.52	1.34	6.56	1.3	6.51	1.33	6.91	1.32	6.93	1.2 7	6.86	1.2	6.2	1.24	6.3	1.2 2	6.65	1.2 8
IC-1	Electronic resources of the library are accessible from my home or office	6.54	1.42	6.67	1.38	6.52	1.41	6.49	1.42	6.61	1.38	6.49	1.41	7.02	1.43 4	7.04	1.2 8	6.89	1.29	6.18	1.33	6.27	1.3 1	6.10	1.4 1
IC-2	Web site of library enables me to locate information on my own	6.54	1.41	6.62	1.38	6.49	1.43	6.51	1.41	6.60	1.38	6.57	1.43	6.91	1.29	6.99	1.2 6	6.87	1.27	6.17	1.34	6.28	1.3 4	6.03	1.4 6

IC-3	Library has printed materials, I need for my work	6.58	1.32	6.71	1.30	6.56	1.32	6.59	1.32	6.66	1.30	6.56	1.32	6.92	1.32	6.92	1.30	6.85	1.21	6.24	1.21	6.35	1.23	6.85	1.26
IC-4	Library has electronic resources, I need for my work	6.56	1.35	6.66	1.31	6.58	1.31	6.54	1.35	6.53	1.31	6.53	1.31	6.83	1.35	6.93	1.31	6.90	1.20	6.19	1.24	6.33	1.22	6.90	1.23
IC-5	Library has modern equipment that lets me have easy access to the needed information	6.56	1.32	6.67	1.29	6.57	1.31	6.57	1.32	6.55	1.29	6.61	1.31	6.93	1.32	6.92	1.29	6.90	1.16	6.17	1.23	6.34	1.20	6.90	1.29
IC-6	Library has easy-to-use access tools that allow me to find information on my own	6.57	1.29	6.65	1.24	6.58	1.30	6.46	1.29	6.54	1.24	6.47	1.30	6.95	1.29	6.94	1.24	6.82	1.20	6.20	1.20	6.28	1.17	6.82	1.23
IC-7	Library makes the information easily accessible for independent search	6.58	1.29	6.63	1.26	6.54	1.29	6.59	1.29	6.55	1.26	6.43	1.29	6.91	1.29	6.89	1.26	6.86	1.16	6.19	1.17	6.29	1.20	6.86	1.15
IC-8	Library has print and/or electronic journal collections, I require for my work	6.55	1.34	6.59	1.28	6.53	1.29	6.46	1.34	6.47	1.28	6.42	1.29	6.88	1.34	6.81	1.28	6.80	1.16	6.27	1.23	6.26	1.15	6.80	1.27
LP	*Library as a Place	6.62	1.31	6.62	1.3	6.36	1.28	6.52	1.56	6.5	1.72	6.54	1.46	6.87	1.56	6.82	1.72	6.86	1.46	6.27	1.15	6.32	1.72	6.26	1.46

LP-1	Library has space that inspires study and learning	6.65	1.28	6.61	1.31	6.66	1.26	6.53	1.10	6.41	1.16	6.58	1.12	6.88	1.10	6.81	1.16	6.90	1.12	6.29	1.10	6.29	1.16	6.28	1.12
LP-2	Library has quiet space for individual activities	6.58	1.36	6.66	1.31	6.60	1.29	6.50	1.13	6.50	1.10	6.47	1.12	6.78	1.13	6.88	1.10	6.81	1.12	6.23	1.13	6.28	1.10	6.25	1.12
LP-3	Library has comfortable and inviting location	6.66	1.32	6.72	1.29	6.66	1.30	6.56	1.14	6.52	1.20	6.51	1.20	6.94	1.14	6.95	1.20	6.94	1.20	6.25	1.14	6.41	1.20	6.29	1.20
LP-4	Library is a gateway for study, learning and research	6.64	1.32	6.69	1.29	6.65	1.26	6.47	1.20	6.61	1.20	6.52	1.14	6.90	1.20	6.91	1.20	6.84	1.14	6.31	1.20	6.32	1.20	6.26	1.14
LP-5	Library has community spaces for group learning and group study	6.59	1.31	6.63	1.31	6.61	1.29	6.56	1.21	6.49	1.20	6.66	1.15	6.85	1.21	6.86	1.20	6.81	1.15	6.27	1.21	6.32	1.20	6.25	1.15
	**Overall	6.58	1.33	6.65	1.3	6.64	1.36	6.55	1.25	6.56	1.22	6.55	1.22	6.93	1.27	6.91	1.24	6.86	1.2	6.23	1.22	6.31	1.2	6.39	1.22

*Dimension average ** Overall average

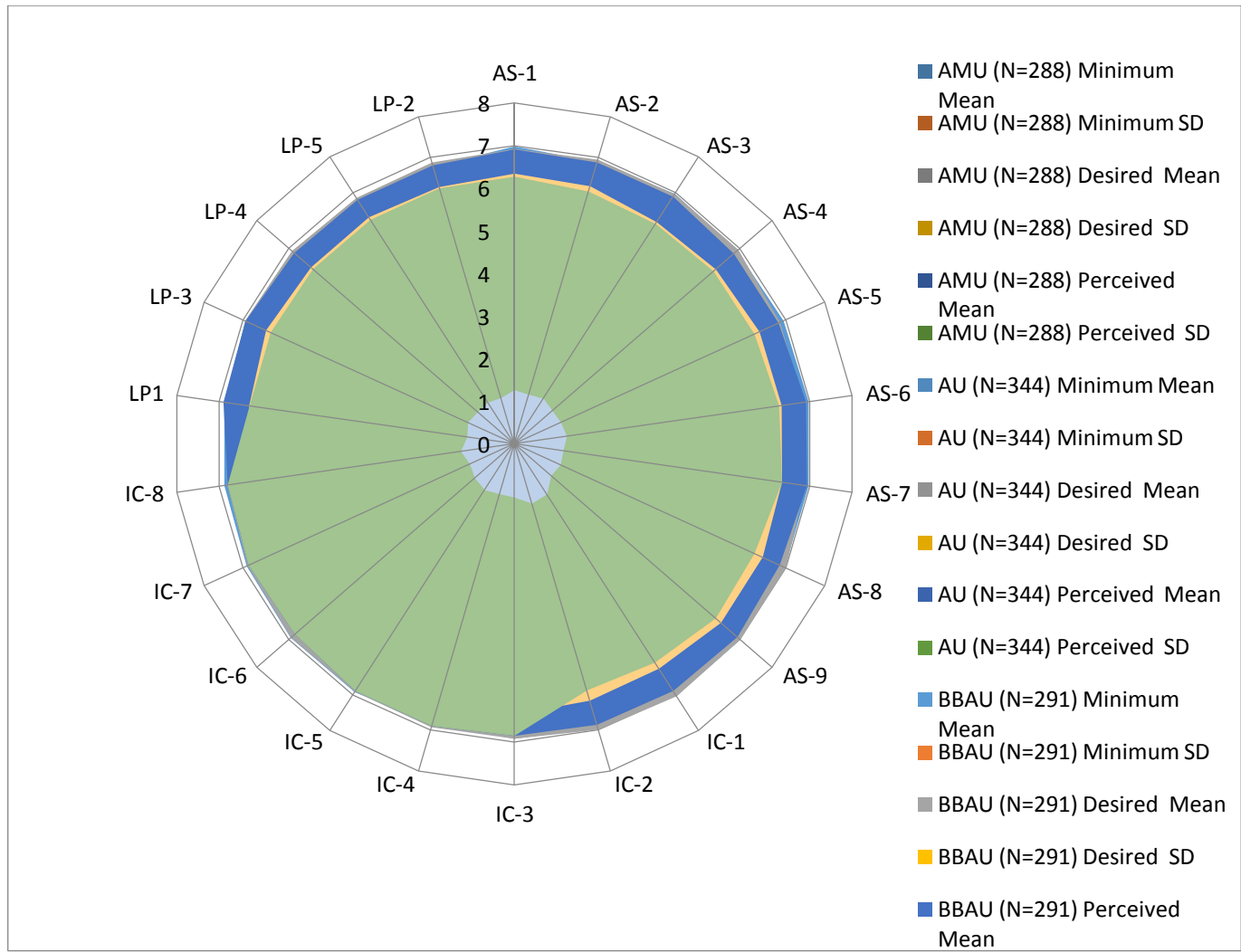


Figure 4.4.17 comparative analysis of service quality in AMU, AU, BBAU, BHU Libraries on LibQual +Tm dimensions

The data presented in above Table 4.4.17 highlight that the respondents evaluated the minimum, desired, and perceived service against each item of LibQual+™ dimensions, i.e., Affect of service. In AMU, the highest score was observed for minimum service expectation in the item “Library staff is always willing to help users” (6.65) whereas, the lowest score was observed for minimum service expectation in the item Library staff pays personal attention to the users (6.53). In AU, the highest score was observed for minimum service expectation in the item Library staff instill confidence in users (6.94), while the lowest score was revealed for minimum service expectation in the item Library staff understand the needs of its users (6.49). In BBAU, the highest score was observed for minimum service expectation in the item Library staff instill confidence in users (6.98), and the lowest score was revealed for minimum service expectation in the item Library staff pays personal attention to the users (6.89). In BHU, the highest score was observed for minimum service expectation in the library staff caring while dealing with the users (6.31). The lowest score was revealed for minimum service expectation in the item Library staff is courteous (6.17).

In the case of desired scores in AMU, the highest desired scores were revealed in the item Library staff understand the needs of its users (6.67). The lowest desired scores were observed in the item Library staff is courteous (6.60). In AU, the extremely highest desired scores were observed in the item Library staff instill confidence in users (6.76) whereas, the lowest desired scores were revealed in the item Library staff is always ready to respond to users’ questions (6.53). In BBAU, the highest desired scores were observed in the item Library staff is always willing to help others (7.00) whereas, the lowest desired scores were revealed in the item Library staff is caring while dealing with the users (6.81). In BHU, the highest desired scores were observed in the item Library staff is always willing to help others (6.40) whereas, the lowest desired scores were revealed in the item Library staff is consisting courteous (6.18).

The highest perceived scores in AMU were observed in the item Library staff is caring while dealing with the users (6.84), while the lowest perceived scores were observed in the item Library staff understand the needs of its users (6.65).

In AU, the highest perceived scores were revealed in the item Library staff instill confidence in users (6.76), while the lowest perceived scores were observed in the item Library staff understand the needs of its users (6.52). In BBAU, the highest perceived scores were revealed in the item Library staff understanding its users' needs (6.93), while the lowest perceived scores were observed in the item Library staff is always willing to help (6.54). In BHU, the highest perceived scores were revealed in the item Library staff understand the needs of its users (6.34), while the lowest perceived scores were observed in the item Library staff pays personal attention to its users (6.17).

4.4.18 Comparison of Service Adequacy Gap and Service Superiority Gap (SSG) among the AMU, AU, BBAU, BHU universities library on Libqual+TM Dimensions

Table 4.4.18 Comparison of Service Adequacy Gap and Service Superiority Gap SSG among the AMU, AU, BBAU, BHU universities library on Libqual+TM Dimensions

Item no	Service quality items	AMU (N=288)		AU (N=344)		BBAU (N=291)		BHU (N=374)	
		SAG	SSG	SAG	SSG	SAG	SSG	SAG	SSG
AS	*Affect of service	0.16	0.09	1.15	0	0.27	0.08	0.84	0.01
AS-1	Library staff instill confidence in users	0.05	0.03	-0.18	0.00	0.06	0.08	-0.07	-0.01
AS-2	Library staff pays personal attention to the users	0.18	0.06	0.08	0.10	-0.07	0.01	-0.10	0.03
AS-3	Library staff is consistently courteous	0.19	0.14	0.02	-0.03	0.01	0.08	-0.02	0.04
AS-4	Library staff is always ready to respond to users" questions	0.23	0.15	0.05	0.07	-0.04	0.10	-0.07	0.01
AS-5	Library staff has competence/knowledge to answer users" questions	0.27	0.18	-0.02	-0.08	0.09	0.13	-0.12	0.01
AS-6	Library staff is caring while dealing with the users	0.22	0.20	0.02	0.04	0.13	0.06	-0.02	0.04
AS-7	Library staff understands the needs of its users	0.07	-0.02	0.03	-0.13	0.09	0.04	-0.05	-0.05

AS-8	Library staff is always willing to help users	0.12	0.06	0.00	0.03	-0.02	0.13	-0.15	0.06
AS-9	Library staff displays reliability in handling users' service problems	0.11	0.03	0.00	-0.03	0.00	0.09	-0.16	0.01
IC	* Information Control	0.09	0.01	0.04	0.01	0.01	0.05	0.1	0.36
IC-1	Electronic resources of the library are accessible from my home or office	-0.13	0.02	-0.11	0.00	-0.02	0.13	-0.09	0.07
IC-2	Web site of library enables me to locate information on my own	-0.08	0.05	-0.07	-0.05	-0.08	0.04	-0.11	0.14
IC-3	Library has printed materials, I need for my work	-0.13	0.02	-0.07	0.02	-0.00	0.06	-0.12	0.04
IC-4	Library has electronic resources, I need for my work	-0.10	-0.02	-0.02	0.01	-0.09	-0.06	-0.14	-0.04
IC-5	Library has modern equipment that lets me have easy access to the needed information	-0.11	-0.01	-0.07	-0.04	0.01	0.03	-0.17	0.06
IC-6	Library has easy-to-use access tools that allow me to find information on my own	-0.08	-0.01	0.04	-0.01	0.01	0.12	-0.08	0.03
IC-7	Library makes the information easily accessible for independent search	-0.05	0.04	-0.01	0.16	0.01	0.04	-0.11	-0.02
IC-8	Library has print and/or electronic journal collections, I require for my work	-0.04	0.01	-0.04	0.04	0.07	0.08	0.01	0.01
LP	*Library as a Place	0.36	0.01	0.92	0.26	0.12	0.26	0.54	0.4

LP-1	Library has space that inspires study and learning	0.04	-0.01	0.12	-0.05	0.06	-0.02	-0.00	0.00
LP-2	Library has quiet space for individual activities	-0.07	-0.02	-0.02	0.02	-0.09	-0.03	-0.06	-0.02
LP-3	Library has comfortable and inviting location	-0.06	0.01	0.43	0.05	-0.01	-0.00	-0.16	-0.03
LP-4	Library is a gateway for study, learning and research	-0.05	-0.01	-0.14	-0.05	-0.01	-0.05	-0.01	0.05
LP-5	Library has community spaces for group learning and group study	-0.04	-0.02	0.07	-0.10	-0.01	-0.03	-0.04	0.02
**Overall		0.24	0.04	0.05	0.001	0.004	0.046	0.083	0.020

The data presented in Table 4.4.18 highlight SAG and SSG for different Library Staff and Information Control items. In AMU, the highest score for SAG was observed for the item “Library staff has competence/knowledge to answer users’ questions” (0.27) whereas, the lowest score was observed for Library staff to instill confidence in users (0.05). For SSG, the highest score was observed for item Library staff caring while dealing with users. The lowest score was for items Library staff instill confidence in users (0.03), and Library staff displays reliability in handling users’ service problems (0.03). In AU, the highest score for SAG was observed for the item “Library staff pays special personal attention to users” (0.08) whereas, the lowest score was observed for Library staff to instill confidence in users (0.05). For SSG, the highest score was observed for item “Library staff pays special personal attention to users” (0.10), and the lowest score was for items Library staff understood the needs of its users (-0.13). In BBAU, the highest score for SAG was observed for the item “Library staff is caring while dealing with users” (0.13) whereas, the lowest score was observed for Library staff pays special personal attention to users (-0.07). For SSG, the highest score was observed for items “Library staff has competence/knowledge to answer users’ questions,” and Library staff is always willing to help users (each 0.13), and the lowest score was for items Library staff pays special personal attention to users (0.01). In BHU, the highest score for SAG was observed for the items “Library staff is consistently courteous,” and Library staff is caring while dealing with users (-0.02) whereas, the lowest score was observed for Library staff is always willing to help users (-0.15). For SSG, the highest score was observed for items “Library staff is always willing to help the user” (0.06), and the lowest score was for items Library staff understood the needs of its users (0.01).

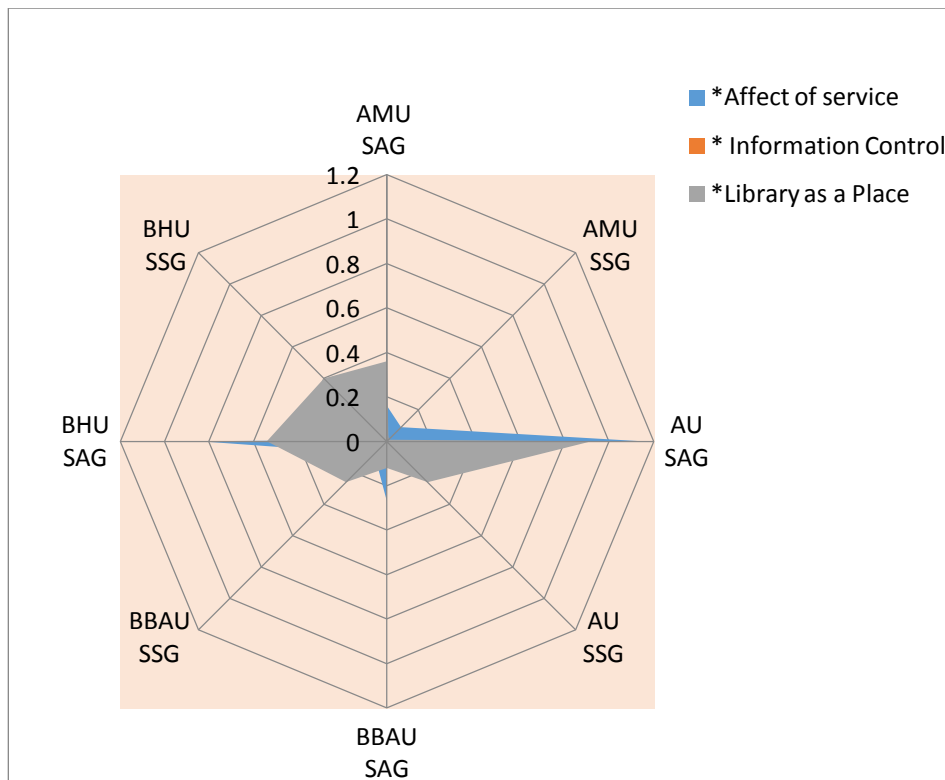


Figure 4.4.18: Comparison of Service Adequacy Gap and Service Superiority Gap SSG among the AMU, AU, BBAU, BHU universities library.

4.4.19 “Exploratory Factor Analysis”

The “Exploratory Factor Analysis” (EFA) was performed using the latest version of SPSS, i.e., SPSS 24.0, to check the dimensionality of the data. For factor extraction, the techniques of “Principal Component Analysis” (PCA) with “Varimax Rotation and Kaiser Normalization” were employed. It was decided to keep only those items that have factor loading greater than 0.4 (Kline 1994; Hinkin1995Malhotra and Dash 2011). Results indicated that all the sixty items had the required loadings (i.e., factor loadings>0.4), and hence, all the items were retained onto their respective factors. EFA results also indicate the extraction of four factors: library staff, information control, and library as place and library contribution. The value for the “Bartlett’s Test of Sphericity” (BTS) was found significant (sig<0.05). Also, the value for Kaiser-Meyer-Olkin (KMO) was acceptable (0.979; >0.6). This value defined the adequacy of the sample for using the EFA for performing the factor analysis

(Malhotra and Dash, 2011). The EFA solution explained the total variance of around 80.224 percent, which is acceptable.

The “Cronbach’s alpha” values for all four factors were found to be well above the acceptable value of 0.7. For example, the Cronbach’s alpha value for the factor ‘library staff’ was 0.966. Similarly, Cronbach’s alpha value for ‘information control’ was found to be 0.958. The Cronbach’s alpha value for the factor ‘library as a place’ was 0.947. For factor ‘library contribution’, Cronbach’s alpha value was observed to be 0.968.

Table 4.4.19: Exploratory Factor Analysis (EFA)

Item Code	Statement	EFA Loading	Decision
Affect of Service (Cronbach’s Alpha=0.966)			
3.1.1	Library staff instills confidence in users.	.731	Retained
3.1.2	Library staff pays personal attention to the users	.795	Retained
3.1.3	Library staff is consistently courteous	.737	Retained
3.1.4	Library staff is always ready to respond to users’ questions	.769	Retained
3.1.5	Library staff has competence/knowledge to answer users’ questions	.742	Retained
3.1.6	Library staff is caring while dealing with the users	.700	Retained
3.1.7	Library staff understands the needs of its users	.648	Retained
3.1.8	Library staff is always willing to help users	.629	Retained
3.1.9	Library staff displays reliability in handling users’ service problems	.586	Retained

Information Control (Cronbach's Alpha=0.958)			
3.2.1	Electronic resources of the library are accessible from my home or office	.780	Retained
3.2.2	Web site of library enables me to locate information on my own	.787	Retained
3.2.3	Library has printed materials, I need for my work	.603	Retained
3.2.4	Library has electronic resources, I need for my work	.711	Retained
3.2.5	Library has modern equipment that lets me have easy access to the needed information	.716	Retained
3.2.6	Library has easy-to-use access tools that allow me to find information on my own	.597	Retained
3.2.7	Library makes the information easily accessible for independent search	.537	Retained
3.2.8	Library has print and/or electronic journal collections, I require for my work	.552	Retained
Library as a Place (Cronbach's Alpha=0.947)			
3.3.1	Library has space that inspires study and learning	.824	Retained
3.3.2	Library has quiet space for individual activities	.781	Retained
3.3.3	Library has comfortable and inviting location	.782	Retained
3.3.4	Library is a gateway for study, learning and research	.829	Retained

3.3.5	Library has community spaces for group learning and group study	.666	Retained
Library Contribution (Cronbach's Alpha=0.968)			
3.4.1	The library helps me to stay abreast of developments in my field(s) of interest	.867	Retained
3.4.2	The library aids my advancement in my academic pursuits	.865	Retained
3.4.3	The library enables me to be more efficient in my academic pursuits	.820	Retained
3.4.4	The library helps me distinguish between trustworthy and untrustworthy	.774	Retained
3.4.5	The library provides me with the information skills I need in my work or study	.784	Retained
3.4.6	In general, I am satisfied with how I am treated at the library	.681	Retained
3.4.7	In general, I am satisfied with library support for my learning, research, and teaching needs	.709	Retained
3.4.8	How would you rate the overall quality of the service provided by the library?	.735	Retained
Variance Explained= 80.224%; KMO= 0.979; BTS= 0.000			

4.5: Hypothesis Validation

Hypothesis 1: All four central university library selected for this research, apply and manage quality service management standards procedure.

Analysis: Table 4.4.1 to 4.4.4 was referred to validate this hypothesis. Each item was analyzed for its minimum, desired, and perceived service performance and computed Service Adequacy and Service Superiority scores to measure the gap.

Statistical Tool: Paired Sample t-test.

Table 4.5: Hypothesis 1 Validation

S. No.	Dimension	Explanation	Result
1.	Affect of Service	The significant SAG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of its users. But, the results related to SSG notably indicate that the perceived service performance is quite close to the minimum service anticipated expected by the users.	Supports that the performance of affect of service in the four universities is at the minimum service level expected by the users but not far from reaching the desired service level.
2.	Information Control	The significant SAG for all items and SSG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of its users.	Regarding information control, libraries of the four universities are not close to providing the desired service level.

3.	Library as a Place	The significant SAG for a majority of items suggests that the libraries of the four universities are far from fulfilling the desired level of information requirements of its users. But the results related to SSG indicate that the perceived service performance is quite close to the minimum service expected by the users.	With regard to ‘library as a place,’ the performance in the four universities is at the minimum service level expected by the users but not far from reaching the desired service level.
4.	Overall	The paired sample t-test results indicate that the libraries of the four universities provide the minimum service level expected by the users but cannot provide the desired level of service expected.	Hypothesis 1 is partially supported.

Hypothesis 2: Quality service management implementation will be varies among the select university library in Uttar Pradesh.

Analysis: The various dimensions of library service (Affect of service, information control, library as a place, library contribution) were compared for the four universities taken for this study.

4.5.1 Statistical Tool: One-way ANOVA.

Table 4.5.1: Services Provided by the Library

User Response	AMU	AU	BAU	BHU
Affect of Service				
Mean	6.748	6.602	6.878	6.220
Standard Deviation	1.306	0.988	1.068	1.079
ANOVA Results	F=22.638; p=0.000			
Information Control				
Mean	6.763	6.514	6.865	6.161
Standard Deviation	1.393	1.002	1.038	1.137
ANOVA Results	F=25.074; p=0.000			
Library as a Place				
Mean	7.025	6.568	6.867	6.267
Standard Deviation	1.337	1.008	1.079	1.009
ANOVA Results	F=26.560; p=0.000			
Library Contribution				
Mean	6.945	6.643	6.945	6.340
Standard Deviation	1.304	1.097	1.119	1.119
ANOVA Results	F=21.056; p=0.000			
Keys				
AMU= Aligarh Muslim University				
AU= Allahabad University				
BHU= Banaras Hindu University				
BBAU= Baba Saheb Bhimrao Ambedkar University				

4.5.2 Interpretation

The service quality management implementation in the four universities was measured based on user perception. Table 4.5.1 demonstrates the user perception

regarding the various dimensions of library service quality for the four universities.

4.5.3 Affect of Service

The users of BBAU have the highest mean (6.878), implying the users of the BBAU library are the most satisfied with the staff in their library. This is followed by the users of AMU, AU, and BHU. The significant results in the ANOVA test ($p=0.000$) validate that the differences reported can be generalized for a larger population.

4.5.4 Information Control

The users of BBAU have the highest mean (6.865), implying the users of the BBAU, the library is the most satisfied with the information control in their library. This is followed by the users of AMU, AU, and BHU. The significant results in the ANOVA test ($p=0.000$) validate that the differences reported can be generalized for a larger population.

4.5.5 Library as a Place

The users of AMU have the highest mean (6.974), implying the users of the AMU, the library is the most satisfied with the 'library as a Place.' This is followed by the users of BBAU, AU, and BHU. The significant results in the ANOVA test ($p=0.000$) validate that the differences reported can be generalized for a larger population.

4.5.6 Library Contribution

The users of AMU have the highest mean (6.947), implying that the users of the AMU library are the most satisfied with the contribution of their library to their academics. This is followed by the users of BBAU, AU, and BHU. The significant results in the ANOVA test ($p=0.000$) validate that the differences reported can be generalized for a larger population.

4.5.7 Conclusion: Since ANOVA results are significant for all the four dimensions of library service, it can be stated that the four universities differ

significantly in terms of their library service implementation. This supports the acceptance of hypothesis 2.

Hypothesis 3: There will be a significant association between users' satisfaction and service quality dimensions.

4.5.8 Regression Analysis

This hypothesis was validated with the help of regression analysis. Researchers have suggested that the multiple regression analysis is the best suited statistical technique when the purpose is to examine the effect of a number of independent variables over a dependent variable (Hair et al., 2006). In fact, the purpose of using numerous regression analyses is to “predict the changes in the dependent variable in response to the changes in the independent variables” (Hair et al., 2006). Regression analysis is based on the principle that a “straight line is the best way to model the relationship between two continuous variables.” According to Cooper and Schindler (2003), the bivariate linear regression can be expressed with the help of the following equation:

$$Y = \beta_0 + \beta_1 X_1$$

When a bivariate linear regression equation is changed to multivariate linear regression, the equation is seen as below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n$$

Researchers such as Akehurst et al. (2012), Cheah and Phau (2011), and Iravani et al. (2012) have also suggested the use of regression analysis to analyze and validate the models representing independent variables effects over the dependent variable. Results of the regression analysis can be observed in Tables 4.22 to 4.24.

4.5.9 Dependent Variable: User satisfaction with library service

4.5.10 Independent Variables: Various dimensions of library service, i.e., Affect of service, information control, library as a place, and library contribution.

Table 4.5.11: “Model Summary”

“Model”	“R”	“R-square”	“Adjusted R-Square”	“Std. Error of the Estimate”
1	.498	.248	.246	.75003

The value of R-square indicates the explanatory power of the model. The present study's R-square value is 0.248, i.e., the model has an explanatory power of 24.8 percent. This explanatory power is satisfactory, as suggested by the previous studies.

In the next table i.e. Table 4.5.12, ANOVA results are available.

Table 4.5.12: Table of ANOVA

“Model”	“Sum of Squares”	“Df”	“Mean Squares”	“F”	“Sig”	
1	“Regression”	239.839	4	59.960	106.587	0.000
	“Residual”	726.801	1292	0.563		
	“Total”	966.640	1296			

Dependent Variable: Satisfaction with library services

Independent Variables: (Constant), Affect of service, information control, library as a place and library contribution

ANOVA results in Table 4.5.12 suggest that model fit is good (Sig<0.05). Thus, the overall model is significant with sufficient explanatory power. Therefore, the regression table can be interpreted for the hypothesis validation.

Results of regression analysis can be observed in Table 4.5.13

Table 4.5.13: Results of Regression Analysis

“Model”	“Unstandardized Coefficients”		“Standardized Coefficients”	“T”	“Sig”	“Collinearity Statistics”		
	β	“Std. Error”	β			“Tolerance”	“VIF”	
1	“Constant”	1.527	0.129	-	11.828	0.000		
	Affect of Service	0.439	0.040	0.577	10.883	0.000	0.207	4.883
	Information Control	-0.061	0.042	-0.084	-1.461	0.144	0.178	5.614
	Library as a Place	-0.052	0.046	-0.070	-1.122	0.262	0.150	6.655
	Library Contribution	0.044	0.042	0.061	1.045	0.296	0.173	5.772

4.5.14 Dependent Variable: Satisfaction with Library Services

The values of Tolerance and VIF determined the multicollinearity. Researchers have suggested that Tolerance values greater than 2 and VIF values greater than 10 indicate the problem of multicollinearity (Hair et al., 1995). In Table 4.5.13, it can be observed that a Tolerance value for all the variables is less than 2. Similarly, a VIF value for all the variables is less than 10. Therefore, the problems of multicollinearity do not exist for all the variables.

As far as validation of hypothesis is concerned, results are discussed in the subsequent paragraphs.

4.5.15 Association of Library Staff and User Satisfaction

Results indicate that user perception about library staff has a significant ($\text{sig} < 0.05$) and positive association ($\beta = 0.577$) with the satisfaction with library service. This suggests that the more satisfied the users with the staff in their library, the more their satisfaction with the library services will be.

4.5.16 Association of Library Information Control and User Satisfaction

Results indicate that user perception about information control in their library has an insignificant ($\text{sig}>0.05$) association with their satisfaction with the library services.

4.5.17 Association of Library as a Place and User Satisfaction

Results indicate that user perception about 'library as a place has an insignificant ($\text{sig}>0.05$) association with their satisfaction with the library services.

4.5.18 Association of Library Contribution and User Satisfaction

Results indicate that user perception about the library's academic contribution has an insignificant ($\text{sig}>0.05$) association with their satisfaction with the library services.

4.5.19 Conclusion

Only one dimension of library service, i.e., the library, was observed to be having a significant association with user satisfaction with the library services. The other three dimensions, such as information control, library as a place, and library contribution, were observed to be having insignificant associations with the library service. Hence, hypothesis 3 was not supported.

Table 4.5.20: Summary of Hypothesis Testing

Hypothesis Code	Hypothesis Statement	Result
H_1	All four central university library selected for this research, apply and manage quality service management standards procedure.	Partially Supported
H_2	Quality service management implementation will be varies among the select university library in Uttar Pradesh	Supported
H_3	There will be a significant association between users' satisfaction and dimensions of service quality.	Not Supported

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CHAPTER-5

FINDINGS, CONCLUSIONS, AND SUGGESTIONS

The research has discussed the implementation of quality service management and its application to libraries and information centers in four different selected central universities of Uttar Pradesh. The successful implementation of quality service management in any academic institution must sustain the top commitment levels in all the areas. Implementation of quality service management is a continuous learning process that requires patience and tolerance to change an organization. Implementation of quality service management is not a guaranty to fulfill the high-quality benchmark, but it's a step in the right direction to achieve the vision of any organization.

In this chapter, the present study entitled "Quality Service Management in central universities library of Uttar Pradesh: A study" assessment has been made to discuss the significant findings, conclusions, suggestions, and finally recommendations for future studies. The findings include the general profile of user's demographic information of population, information about literacy, general satisfaction with library services and resources, usage pattern of information resources, library webpage followed by the result, which is based on the dimensions of Libqual+TM, i.e., Affect of service, Information control, and library as a place among the central universities library of Uttar Pradesh.

5.1 General Profile Information

Out of 1297 respondents, the following results have been summaries:

The male respondents, 55.9%, and female respondents, 44.1%, participated in the survey and positively responded to this study.

The respondents below the age of 25 years were 31.11%, between the age of 26 and 30 years 46.5%, and above the age 36 years 11.6%.

From the discipline-wise respondents, science domain 36.8%, followed by social sciences 34.1%, medical science 11.4%, management studies 11.4%, and engineering and technology 10.3%.

75.3% of the respondents used the library on a daily basis, 7.9% used the library twice in the week, 10.9% used the library thrice in a week, 0.9% used the library forthrightly, 1.5 % used the library once in a month, and 3.5% used library occasionally.

The library services and resources provided by the university library were assessed as satisfactory by the majority of respondents.

5.2 Findings from AMU, Maulana Azad Library, Aligarh on Libqual+TM dimensions

5.2.1 Affect of Service Dimensions:

The investigator discussed the above model of quality management model, and after the finding, the suggestions occurred as below.

- ❖ The library user's communities of Aligarh Muslim University, Aligarh were satisfied as their minimum services requirement was fulfilled and service adequacy (means score= 0.16) on the effect of library staff dimensions. Library users respondent that the library staff members were courteous and caring while searching their desired information and resources in the library.
- ❖ The respondent showed positive scores for service superiority (Mean score = 0.09) on the library staff dimensions, meaning indicating that there was a service superiority as the score was found statistically significant. The library's service was superior in terms of the Affect of service dimensions, meaning that the users were satisfied with the courteous behavior and help of the library staff member.

5.2.2 Information control dimensions

- ❖ That respondents from AMU Aligarh had given a negative response to service adequacy (Mean score = -0.1) on all the information control dimensions, meaning

that the users of the library were quite triumphant pleased with the availability and access of print journals as well as electronic information resources and information technology infrastructure. The users were also satisfied with the rich collection of books, journals, and other relevant materials, which were useful for their academic and research work. However, the respondents showed their dissatisfaction that they could not access the electronic information resources from their home/ hostel and office remotely.

- ❖ With regard to the service superiority, the respondents gave a negative score (Mean score = -0.01) for all the items of information control dimensions. Still, they found that it is statically significant, showing that the library users were not pleased to acknowledge the services related to these dimensions. However, it is clear that the result of the minimum requirement of the users was fulfilled, but their desired information requirement was not fulfilled. The library users were quite pleased as the library made the information easily accessible to a self-contained search and retrieval system.

5.2.3 Library as place dimensions

- ❖ With reference to the service adequacy on the library as place dimensions, the respondent from AMU Aligarh showed their negative response (Mean score = -0.04), meaning that the library fulfilled their minimum service requirement on these dimensions. The users were quite satisfied with the physical infrastructure of the library, which inspired them to study, learning and development. The users were also quite satisfied with the statement that the library was a gateway for study, learning, and research.
- ❖ So far, concerned with the service superiority on the library as place dimensions, the respondents rated all the items negatively (Mean score = -0.01) showed that their desire requirement was not fulfilled properly; however, the score was found statically significant important. The users were satisfied that the library has a

quiet space for individual activities and a comfortable and inviting location for study, learning, and research.

Overall, users from all sections expressed quite satisfaction with the services provided to them on all dimensions, representing the various issues of staff, collection, and library services.

5.3 Findings from Allahabad University Library, Prayagraj on Libqual+TM dimensions

5.3.1 Affect of Service Dimensions:

- ❖ The user's communities of AU library were satisfied as their minimum services requirement was fulfilled and service adequacy (Means score= 0.02) on the effect of library staff dimensions. User's respondent that the library staff members were courteous and caring while searching their desired information and resources. User's also respondents that library staff pays personal attention to the users.
- ❖ The respondent showed positive scores for service superiority (Mean score = 0.09) on the library staff dimensions, indicating that there was a service superiority as the score was found statistically significant. The library's service was superior in terms of the effect of service dimensions, meaning that the users were satisfied with the courteous behavior and helpful of the library staff member the library.

5.3.2 Information Control Dimensions

- ❖ That respondents from AU, Prayagraj had given a negative response to service adequacy (Mean score = **-0.04**) on all the information control dimensions, meaning that the users of the library were not satisfied with the availability and access of print journals as well as electronic information resources and ICT infrastructure. The users were quite satisfied with the rich collection of books, journals, and other relevant materials, which were useful for their academic and

research work. However, the respondents showed less satisfaction that they could not approach in terms of accessing the e-content information resources from their home/ hostel and office.

- ❖ With regard to the service superiority, the respondents gave a positive score (Mean score = **0.02**) for all the items of information control dimensions but found it statically significant, showing that the library users were happy with the services related to these dimensions. However, it is clear from the result that the users' minimum requirement was fulfilled, but their desired information requirement was also highly fulfilled. The library users were quite happy as the library made the information easily accessible for independent search and retrieval system

5.3.3 Library as Place Dimensions

- ❖ With reference to the service adequacy on the library as place dimensions, the respondent from AU Prayagraj showed their positive response (Mean score = **0.09**) meaning that the library on these dimensions gratified their minimum service requirement. The users were quite satisfied with the physical infrastructure of the library, which inspired them to study, learning and development. The users were also quite satisfied with the statement that the library was an access gateway for study, learning, and research.
- ❖ So far, concerned with the service superiority on the library as place dimensions, the respondents rated all the items positively (Mean score = **0.02**) showed that their desire requirement was correctly fulfilled; however, the score was found statically significant important. The users were satisfied with the library has a quiet space for individual activities, and the library offers a pleasant and comfortable atmosphere for study, learning, and research.

Overall, users from all sections expressed satisfaction with the services provided to them on all dimensions, representing the various issues of staff, collection, and library services.

5.4 Findings from BBAU' Gautam Buddha Library, Lucknow on Libqual+TM dimensions

5.4.1 Affect of Service Dimensions:

- ❖ The user's communities of BBAU, library were satisfied as their minimum services requirement was fulfilled and service adequacy (means score= 0.03) on the effect of library staff dimensions. User's respondent that the library staff members were courteous and caring while searching their desired information and resources. Users also respondents that library staff pays personal attention to the users. The BBAU library has a fewer staff, and they did a commendable job, as the users were satisfied with their services.
- ❖ The respondent showed positive scores for service superiority (Mean score =0.08) on the library staff dimensions, meaning indicating that there was a service superiority as the score was found statistically significant. The library's service was superior in terms of the effect of service dimensions, meaning that the users were satisfied with the courteous behavior and a helpful library staff member.

5.4.2 Information Control Dimensions

- ❖ That respondents from BBAU had given a negative response to service adequacy (Mean score = -0.01) on all the information control dimensions, meaning that the library users were notably satisfied with the availability and access of print journals and electronic information resources and ICT infrastructure. The users were also satisfied with the rich collection of books, journals, and other relevant materials, which were useful for their academic and research work. However, the

respondents showed less satisfaction that they could not approach accessing the e-content information resources from their home/ hostel and office.

- ❖ With regard to the service superiority, the respondents gave a positive score (Mean score = 0.06) for all the items of information control dimensions but found it statically significant, showing that the library users were happy with the services related to these dimensions. However, it is clear from the result that the users' minimum requirement was fulfilled, but their desired information requirement was also highly fulfilled. The library users were quite happy as the library made the information easily accessible for independent search and retrieval system

5.4.3 Library as Place Dimensions

- ❖ With reference to the service adequacy on the library as place dimensions, the respondent from BBAU, Lucknow, showed their positive response (Mean score = 0.01), meaning that the library fulfilled their minimum service conditional requirement on these dimensions. The users were pleased satisfied with the physical infrastructure of the library, which inspired them to study, learning and development. The users were also pleased satisfied with the statement that the library was a gateway for study, learning, and research.
- ❖ The users were also quite satisfied with the statement that the library was a gateway for study, learning, research, and space for quiet study; so far concerned with the *service superiority* on the library as place dimensions, the respondents rated all the items positively (Mean score =0.01) showed that their desire requirement was correctly fulfilled, however, the score was found statically significant important. The library has a quiet environment for individual activities, and the library has a convenient and inviting location for study, continuing to learn, and research, according to the users.

Overall, users from all sections expressed satisfaction with the services provided to them on all dimensions, representing the various issues of staff, collection, and library services.

5.5 Findings from BHU Sayaji Rao Gaekwad Library, Varanasi on Libqual+TM dimensions

5.5.1 Affect of Service Dimensions:

- ❖ The user's communities of BHU library were not satisfied as their minimum services requirement was fulfilled and *service adequacy* (Means score= - 0.08) on the effect of library staff dimensions. User's respondent that the library staff members were courteous and caring while searching their desired information and resources. Users also respondents that library staff pays personal attention to the users.
- ❖ The respondent showed positive scores for *service superiority* (Mean score =0.02) on the library staff dimensions, meaning indicating that there was a service superiority as the score was found statistically significant. The service of the library was superior in terms of service dimensions, meaning that the users were satisfied with the courteous behavior and helpful of the library staff member.

5.5.2 Information Control Dimensions

- ❖ That respondents from BHU had given a negative response to *service adequacy* (Mean score = - 0.10) on all the information control dimensions, meaning that the library users were pleased satisfied with the availability and access of print journals and electronic information resources and ICT infrastructure. The users were also satisfied with the high collection of books, journals, and other relevant materials, which were useful for their academic and research work. However, the respondents showed less satisfaction that they could not approach accessing the e-content information resources from their home/ hostel and office.
- ❖ With regard to the *service superiority*, the respondents gave a positive score (Mean score = 0.04) for all the items of information control dimensions but found it statically significant, showing that the library users were pleased with the services related to these dimensions. However, it is clear from the result that the

users' minimum requirement was fulfilled, but their desired information requirement was also highly fulfilled. The library users were quite happy as the library made the information easily accessible for independent search and retrieval system

5.5.3 Library as Place Dimensions

- ❖ With reference to the service adequacy on the library as place dimensions, the respondent from BHU, Varanasi, showed their negative response (*Mean score = -0.1*), meaning that the library fulfilled their minimum service requirement on these dimensions. The users were quite satisfied with the physical infrastructure of the library, which inspired them to study, learning and develop. The users were also quite satisfied with the statement that the library was a gateway for study, learning, and research.
- ❖ The users were also quite satisfied with the statement that the library was a gateway for study, learning, research, and space for quiet study; so far concerned with the *service superiority* on the library as place dimensions, the respondents rated all the items positively (*Mean score =0.01*) showed that their desire requirement was correctly fulfilled, however, the score was found statically significant important. According to the users, the library provides a quiet environment for individual activities and a convenient and encouraging environment for study, learning, and research.

Overall, users from all sections expressed satisfaction with the services provided to them on all dimensions, representing the various issues of staff, collection, and library services.

5.6 Recommendations for future studies

In the present study, the quality service management was accessed in all the four central university libraries of Uttar Pradesh with the help of LibQual+™.instruments. In India, only a few kinds of research have been carried out using LibQual Instruments to assess

the service quality of various libraries. Thus, there is a vast scope to research the service quality of different libraries in India, particularly through the web version of LibQual. In the future, a researcher can choose the following areas of study:

- ❖ The present study has been focused on the central university libraries of Uttar Pradesh.
- ❖ Future research may be conducted on the other state of the central university of India.
- ❖ A future study may be carried out to know the user expectations and perceptions in other special or traditional libraries of the country.
- ❖ In the present study, the focus has been on the score of LibQual +TM dimensions, but further study may be carried out based on the comments on the respondents.
- ❖ The future study may be carried out with individual dimensions of LibQual +TM to know the current status of library staff, collections, and services.
- ❖ In the present study, resources and services quality has been measured using quantitative methods.
- ❖ Future studies may be carried out using qualitative methods.
- ❖ Checking the validity of LibQual+TM instruments is a further subject of research.
- ❖ Future studies can be carried out based on the respondents' category, whether the respondent's category affects the findings or not.

- ❖ Further research may also be done to know the difference in results of different academic disciplines.

5.7 Conclusions:

It has been determined on the basis of the findings of the study it has been determined that each of the four university libraries possesses a substantial collection of books and other types of resources. All the university libraries were equipped with modern IT infrastructural facilities and other modern amenities. The high usages of library resources demonstrate users' awareness of library resources and services. All libraries have a rich collection of literary sources that books journal manuscripts, rare and online resources.

The study's main objective was to learn more about the quality service management in Uttar Pradesh's central university libraries. All the four universities under the study were not providing quality services as expected by the users. However, the BHU library, Varanasi, has offered quality services compared to AU, Prayagraj Library. AMU was the best among the universities under the study in providing quality services, followed by the BHU, Varanasi, AU Prayagraj, and BBAU, Lucknow. On the other hand, the library of BHU, Varanasi, provides services better than the library of AU, Prayagraj. The library of AMU Aligarh and AU, Prayagraj were found excellent infrastructure facility. At the same time, AMU Aligarh and BHU Varanasi have a rich collection and large ICT facility, providing separate research development facilities for users. All the libraries offer many services to the users, but users reached a minimum level of the services and did not achieve the desired services.

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Quality Service Management in Central University Libraries of Uttar Pradesh: A Study

(Librarian's Questionnaire)

Dear Sir,

I am conducting a study on the above topic for the award of a Ph.D. degree under the supervision and guidance of Dr. Jatinder Kumar, School of Social Science, Library & Information Science, Lovely Professional University, Phagwara (Punjab).

The study is being conducted to know the challenges being faced by the libraries in providing quality services to their users. This questionnaire intends to understand quality parameters of central university libraries. Your responses, remarks and suggestions will help me to draw the meaningful outcomes of the study. On completion of study, I would share the vital outcomes of the study with you for your reference.

I assure you that the information provided shall be used for research purpose only.

Thanking you and with regards,

Yours truly,

Nazia Salauddin
Research Scholar (Ph. D. - Library & Information Science)
Lovely Professional University,
Phagwara, Punjab.
E-mail: nazia2710@gmail.com
Contact No. XXXXXXXXXX

PART – A
1. General Information

1.1 Personal Information

- 1.1.1 Name _____
1.1.2 Designation _____
1.1.3 Contact No. _____
1.1.4 E-mail _____
1.1.5 Experience _____
1.1.6 Qualification _____

1.2 About University

- 1.2.1 Name of the University: _____
1.2.2 Year of Establishment: _____
1.2.3 Number of courses: _____
1.2.4 Total Number of faculty members _____
1.2.5 Total Number of students' _____
(1) UG _____
(2) PG _____
(3) Research Scholars _____

1.3 NAAC points and Grade _____

PART –B

2. Library Users, Staff, Resources, Services, Infrastructure

2.1 About Library

- 2.1.1 Name of the library _____
2.1.2 Contact Number _____ Email: _____
2.1.3 Website/OPAC/URL: _____
2.1.4 Total Number of Registered faculty: _____
2.1.5 Total Number of Registered Students: _____
2.1.6 Members of library Staff:

Professional	Nos.	Semi-professional	Nos.	Supporting Staff	Nos.
Librarian		Professional assistant		Clerks	
Deputy Librarian		Sr. Library assistant		Data entry operators	
Assistant Librarian		Jr. Library assistant		Cleaners/sweepers	
Information Scientist		Library attendants		Security guards	
Any other		Any other		Any other	

2.1.7 Working hours of the library:

- (i) Weekdays _____ Weekends _____ Holidays _____

2.2 Library Infrastructure

2.2.1 Nature of Library Building

- (i) Separate
- (ii) Attached
- (iii) Portion of floor or Building

2.2.2 Total Area of Library _____

2.2.3 Availability of infrastructural facilities:

Availability of Infrastructural facilities	Available	Not-available	Numbers
(i) Reading halls			
(ii) Digital section			
(iii) Periodical section			
(iv) Reference section			
(v) Textbook section			
(vi) Study carrels			
(vii) Discussion rooms			
(viii) Multimedia section			
(ix) Seminar room			
(x) Air-conditioners			
(xi) Water coolers			
(xii) Washrooms			
(xiii) Study Chairs & tables			
(xiv) Book shelves/Racks			
(xv) Book trolleys			
(xvi) Lifts			
(xvii) Staircases			
(xviii) Ramps			
(xix) Lighting & Ventilation			
(xx) Library guide map			
(xxi) New arrival display			
(xxii) Notice boards			
(xxiii) baggage Counters			
(xxiv) CCTV surveillance			
(xxv) Power back-up			
(xxvi) Emergency exit			
(xxvii) Any other...			

2.2.4 Total expenditure incurred on procurement of library infrastructural facilities during last five years.

Expenditure incurred on Library infrastructural facilities in INR (Rs.)	Year(s)				
	2016-17	2017-18	2018-19	2019-20	2020-21

2.3 Availability of literary resources:

Availability of literary resources	Available	Not-available	Qty (Nos.)
(i) Books			
(ii) Journals			
(iii) Magazines			
(iv) Newspapers			
(v) Theses			
(vi) Dissertations			
(vii) Reference books			
(viii) Rare documents			
(ix) CDs/DVDs			
(x) Project Reports			
(xi) Bound volumes of journals			
(xii) Conference proceedings			
(xiii) Maps/Atlas			
(xiv) Standards			
(xv) Manuals/Guidebooks			
(xvi) E-journals			
(xvii) E-books			
(xviii) Subject guides			
(xix) Databases			
(xx) Library website/OPAC			
(xxi) Digital repository			
(xxii) Any other...			

2.3.1 Total expenditure incurred on procurement of library resources during last five years

Expenditure incurred on Library Resources in INR (Rs.)	Year(s)				
	2016-17	2017-18	2018-19	2019-20	2020-21

2.4 Availability of library services:

Availability of Library Services	Available	Not-available
(i) Circulation services		
(ii) Reference service		
(iii) Referral service		
(iv) Digital reference service		
(v) Content alert Service		
(vi) Conference alert service		
(vii) Newspaper clipping service		
(viii) Online/offline catalogue		
(ix) Indexing & abstracting service		
(x) Bibliographic services		

(xi) Research support service		
(xii) Inter Library Loan service		
(xiii) User awareness service		
(xiv) Reprographic service		
(xv) Any other...		

2.4.1 Total expenditure incurred on procurement of library services during last five years.

Expenditure incurred on Library Services in INR (Rs.)	Year(s)				
	2016-17	2017-18	2018-19	2019-20	2020-21

2.5 Availability of ICT infrastructural facilities and services:

Availability of IT-based Services	Availa ble	Not-available	Qty (Nos.)
(i) LAN			
(ii) Wi-Fi			
(iii) Total no of computers			
(iv) Printers			
(v) Scanners			
(vi) Photocopy machines			
(vii) Status of Library Automation			
(viii) Name of the library Automation software (LMS)			
(ix) Software used for digitalization			
(x) Facility of online catalogue			
(xi) Barcode reader			
(xii) RFID available			
(xiii) Library website			
(xiv) Remote access of E-resources			

2.5.1 Total expenditure incurred on procurement of library's IT-based services during last five years.

Expenditure incurred on Library's IT based services in INR (Rs.)	Year(s)				
	2016-17	2017-18	2018-19	2019-20	2020-21

PART- C

3. Usage of Library Services and Resources

3.1 Please provide details regarding usage of Library services during last one year.

Library Service(s)		Nos.	Nos.
(i) Number of reference queries resolved	Electronic		
	Manual		
(ii) Number of current awareness service provided	Electronic		
	Manual		
(iii) Number of selective dissemination of information provided	Electronic		
	Manual		
(iv) Number of books circulated (Issued)			
(v) Number of books circulated (Returned)			
(vi) Number of books circulated (Re-issued)			
(vii) Number of Inter Library Loan requests handled			
(viii) Number of referral services provided			
(ix) Number of indexes and abstracts arranged/created			
(x) Number of bibliographies provided/arranged			
(xi) Number of E-resource downloaded			
(xii) Number of library visitors			
(xiii) Number of time Library OPAC used	Electronic		
	Manual		
(xiv) Number of visits on Library webpage			
(xv) Number of newspaper clippings arranged			
(xvi) Number of email alert services provided			
(xvii) Number of times e-resources accessed remotely (off-campus)			
(xviii) Any other			

PART- D

4. User awareness /Education programs & Promotional activities

4.1 Please provide details regarding Library's promotional activities during last one year.

Library' Promotional activities	Nos.
(i) Number of library awareness/orientation programs arranged	
(ii) Number of library visits arranged	
(iii) Number of webinar/seminar arranged	
(iv) Number of training programs/workshop arranged	
(v) Number of book exhibition arranged	
(vi) Number of special lecture arranged	
(vii) Number of notices/announcement arranged	
(viii) Number of video tutorial arranged	
(ix) Any other...	

4.2 Please furnish the information regarding user awareness/education programs conducted by the library during the last five years.

Year	Number of user awareness/ education programs arranged
2016	
2017	
2018	
2019	
2020	

4.3 Please tick [√] in the appropriate box for the following statement(s) regarding use of ICT in libraries.

SD-Strongly Disagree, D-Disagree, NAD-Neither agree neither disagree, A-Agree SA-Strongly Agree

ICT & Library Service(s)	SD	D	NAD	A	SA
(i) Document searching has become easier and faster with ICT					
(ii) Literature search has become easy and fast ICT					
(iii) Issues Return of documents has become faster and time saving with ICT					
(iv) Reference service has improved with use of ICT					
(v) Time is considerably saved with the use of ICT					
(vi) Electronic access to more no. of resources of the library at one time helps in fulfilling the information needs of the users.					
(vii) ICT application facilitate in providing access to library resources as per users' convenience of place & time.					
(viii) ICT applications in the library enabled the staff to help the user in getting the required article or material from other libraries in order to fulfill his/her information needs.					
(ix) ICT has helped in improving the Library services					

PART- E

5. LIBRARIAN'S SATISFACTION LEVEL REGARDING LIBRARY FACILITIES AND BARRIERS IN PROVIDING QUALITY SERVICES

5.1 Please indicate your satisfaction level with the reference to following dimensions on 5 point Scale. Please respond to the statement according to the extent you are satisfied with the content of the statements.

1	2	3	4	5
Least Satisfied			Most Satisfied	

1. Present staff provided in the Library	1 2 3 4 5
2. Present library collection	1 2 3 4 5
3. Present services provided by the Library	1 2 3 4 5
4. Budget provided to the library	1 2 3 4 5
5. Applications of ICT in the library	1 2 3 4 5
6. Software for House Keeping Operations of the library	1 2 3 4 5
7. OPAC	1 2 3 4 5
8. E-journals/E-books collection	1 2 3 4 5
9. Present purchase/subscription policy/procedure	1 2 3 4 5
10. Classification and cataloguing work of the library	1 2 3 4 5
11. An atmosphere of trust and confidence in the library	1 2 3 4 5
12. Staff's commitment to improve the quality of the library services	1 2 3 4 5
13. Security & maintenance of library material	1 2 3 4 5
14. Power backup-UPS/Generator	1 2 3 4 5
15. Photocopy / scanning services	1 2 3 4 5
16. Quality of furniture	1 2 3 4 5
17. Seating capacity	1 2 3 4 5
18. Cleanliness and hygienic environment	1 2 3 4 5
19. Lighting and ventilation arrangement	1 2 3 4 5
20. Cooling and heating facilities for reading halls	1 2 3 4 5
21. Overall satisfaction with the library services	1 2 3 4 5

5.1 Barriers in Service Quality: Please tick [√] in the appropriate box against statement that is presently affecting service quality of your library.

SD-Strongly Disagree, D-Disagree, NAD-Neither agree neither disagree, A-Agree, SA-Strongly Agree

Factors affecting service quality	SD	D	NAD	A	SA
Lack of funds					
Lack of awareness and knowledge of e-resources of library.					
Lack of support from University Administration					
Lack of infrastructure facilities					
Lack of trained staff					
Library staff resistance to adopt change					
Any other (Pl. Specify)					

Please give details of future plans to further improve the service quality of library:

Thank you for your kind cooperation and sparing your valuable time

Thanks for your kind cooperation.

QUESTIONNAIRE FOR LIBRARY USERS

Quality service Management in Central University Libraries of Uttar Pradesh: A Study

I am conducting a study on the above topic for the award of **Ph.D. Degree** under the supervision and guidance of Dr. Jatinder Kumar Department of Library & Information Science, Lovely Professional University, Phagwara (Punjab).

The study is will make efforts to know the challenges faced by the libraries in providing quality service to their users. This questionnaire intends to understand your attitude towards quality parameters of central university libraries. Your responses, remarks, and suggestions will further help libraries to improve the quality of services they render and will be valuable for the meaningful outcomes of the study.

I assure you that the information provided shall be used for research purposes only.

Questionnaire (for Users) (Please put a tick mark (✓) in box wherever applicable)

PART- A

1. General Information

1.2 Name of the university _____

1.3 Name : _____

1.4 User Category:

(i) Under-Graduate	<input type="checkbox"/>	Post-Graduate	<input type="checkbox"/>
(ii) Teacher	<input type="checkbox"/>	Research Scholar	<input type="checkbox"/>
(iii) Others	<input type="checkbox"/>		

1.5 Gender:

(i) Male	<input type="checkbox"/>
(ii) Female	<input type="checkbox"/>

1.6 Age Group:

(i) 16-20	<input type="checkbox"/>
(ii) 21-25 years	<input type="checkbox"/>
(iii) 26-30 years	<input type="checkbox"/>
(iv) 31-35 years	<input type="checkbox"/>
(v) 36 & above	<input type="checkbox"/>

1.7 Discipline:

Discipline	Social Sciences & Humanities	Sciences	Medical science	Managem ent studies	Engineering and & Technology	Other specify

PART -B

2. Library usage pattern

2.1 How often you visit the library?

- (i) Daily
- (ii) Twice a week
- (iii) Thrice a week
- (iv) Fortnightly
- (v) Once in a month
- (vi) Occasionally

2.2 Are you aware of the following resources of the library?

- (i) Books
- (ii) Journals
- (iii) Periodicals
- (iv) E-resources
- (v) Audio-visual aids
- (vi) Theses & Dissertations
- (vii) Project reports
- (viii) Reference sources
- (ix) Archival resources

2.2.1 Are you satisfied with the number and types of library resources?

Level of Satisfaction with Library Resources	Highly Satisfied	Satisfied	Partial Satisfied	Least satisfied	Not satisfied

2.2.2 Do you refer to library resources for fulfilling your teaching/learning/research needs?

Library Resources	Highly referred	Often referred	Partial referred	Least referred	Not referred
(i) Books					
(ii) Journals					
(iii) Periodicals					
(iv) E-resources					
(v) Audio-visual aids					
(vi) Theses & Dissertations					
(vii) Project reports					
(viii) Reference sources					
(ix) Archival resources					
(x) Any other...					

2.3 The purpose of the visiting library.

- (i) To borrow books
- (ii) To read journals/magazines
- (iii) To read newspapers

- (iv) To use Internet facility
- (v) To access online resources
- (vi) To read novels/storybooks
- (vii) To supplement classroom teaching
- (viii) To study in the peaceful academic environment
- (ix) Others.....

2.4 Are you aware of the following Services of the library?

- (i) Circulation Service
- (ii) Reference Service
- (iii) Indexing and Abstracting Service
- (iv) OPAC (Online Catalogue)
- (v) Digital Reference Service
- (vi) Library website
- (vii) Documentation Service
- (viii) InterLibrary Loan Service
- (ix) Referral Service
- (x) Internet/Wi-fi
- (xi) Digital section
- (xii) Remote access of resources
- (xiii) Research support service

2.4.1 Are you satisfied with library services?

Level of Satisfaction with Library Services	Highly Satisfied	Satisfied	Partial Satisfied	Least satisfied	Not satisfied

2.2.9 Do you access the library website/portal/OPAC? Yes No

2.2.7.1 If yes, wherefrom you access the library website/portal/OPAC?

- (i) Home
- (ii) Library
- (iii) Department
- (iv) Class
- (v) Home

2.2.10 Which device do you use for accessing the library's online resource?

- (i) Personal computer
- (ii) Laptop
- (iii) Smartphone
- (iv) Tablet
- (v) Any other...

2.2.11 How do you come to know about newly added resources and services in the library? (Choose all if required)

- (i) Library staff
- (ii) Library notice board
- (iii) Library News Bulletin
- (iv) E-mail Advisory

- (v) Library website/OPAC
- (vi) Library's Social Media page
- (vii) Any other (Pl. Specify).....

- 2.2.12 Have you attended any user awareness/orientation program of the library?
2.2.12.1 If yes, how much user awareness/orientation program was informative?
- (i) Highly informative
 - (ii) Informative
 - (iii) Partial informative
 - (iv) Least informative
 - (v) Not informative

PART - C

3. User's perception about Library Staff, Resources, Services, and Infrastructure (LIBQUAL Tool)

Please rate the following statements 1-9 (**lowest to highest**), from Strongly Disagree to Strongly Agree

Service level definitions:

- **Minimum** – the number that represents the minimum level of service that you would find acceptable
- **Desired** – the number that represents the level of service that you want
- **Perceived** – the number that represents the level of service that you believe the library currently provides

3.1 Dimension: Library staff																			
Sr. No.	Details of Question	My Minimum Service Level is (Low) (Moderate) (High)			My Desired Service Level is (Low) (Moderate) (High)			Perceived Service Performance (Low) (Moderate) (High)											
When it comes to ...																			
3.1.1	Library staff instill confidence in users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.2	Library staff pays personal attention to the users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.3	Library staff is consistently courteous	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.4	Library staff is always ready to respond to users' questions	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.5	Library staff has competence/knowledge to answer users' questions	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.6	Library staff is caring while dealing with the users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.7	Library staff understands the needs of its users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.8	Library staff is always willing to help users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.1.9	Library staff displays reliability in handling users' service problems	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3.2 Dimension: Information Control																			
Sr. No.	Details of Question	My Minimum Service Level is (Low) (Moderate) (High)			My Desired Service Level is (Low) (Moderate) (High)			Perceived Service Performance (Low) (Moderate) (High)											
When it comes to ...																			

3.2.1	Electronic resources of the library are accessible from my home or office	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.2.2	Web site of library enables me to locate information on my own	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.2.3	Library has printed materials, I need for my work	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.2.4	Library has electronic resources, I need for my work	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.2.5	Library has modern equipment that lets me have easy access to the needed information	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.2.6	Library has easy-to-use access tools that allow me to find information on my own	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.2.7	Library makes the information easily accessible for independent search	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.2.8	Library has print and/or electronic journal collections, I require for my work	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.3 Dimension: Library As Place				
Sr. No.	Details of Question	My Minimum Service Level is (Low) (Moderate) (High)		My Desired Service Level is (Low) (Moderate) (High)
When it comes to ...				
3.3.1	Library has space that inspires study and learning	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.3.2	Library has quiet space for individual activities	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.3.3	Library has comfortable and inviting location	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9

3.3.4	Library is a gateway for study, learning and research	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.3.5	Library has community spaces for group learning and group study	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4 Please indicate the degree to which you agree with the following statements:				
		My Minimum Service Level is (Low) (Moderate) (High)		
3.4.1	The library helps me to stay abreast of developments in my field(s) of interest	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4.2	The library aids my advancement in my academic pursuits	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4.3	The library enables me to be more efficient in my academic pursuits	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4.4	The library helps me distinguish between trustworthy and untrustworthy	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4.5	The library provides me with the information skills I need in my work or study	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4.6	In general, I am satisfied with how I am treated at the library	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4.7	In general, I am satisfied with library support for my learning, research, and teaching needs	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3.4.8	How would you rate the overall quality of the service provided by the library?	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9

Thank you for your kind cooperation and for sparing your valuable time