



Examining the Influence of Library Service Quality on User Satisfaction and Engagement: An Empirical Study of Academic Libraries

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Abstract

Academic libraries have transformed from traditional repositories of printed materials into dynamic learning environments that support teaching, research, innovation, and lifelong learning. As higher education institutions increasingly rely on digital technologies and user-centered services, evaluating library service quality has become essential for improving user satisfaction and engagement. This study examines the influence of library service quality on user satisfaction and engagement among users of academic libraries. The study adopts a quantitative research design using a structured questionnaire based on the LibQUAL+ dimensions: Affect of Service, Information Control, and Library as Place. Data are collected from students, research scholars, and faculty members of selected academic libraries. Descriptive statistics, reliability analysis, correlation, regression, and Structural Equation Modeling (SEM) are employed to analyze the relationships among the variables. The findings indicate that library service quality has a significant positive influence on user satisfaction, which subsequently enhances user engagement. Among the service quality dimensions, staff responsiveness, accessibility of digital resources, and learning environment emerge as the strongest predictors of satisfaction. The study contributes to library and information science by providing empirical evidence supporting user-centered service quality models and offers practical recommendations for library administrators to strengthen service delivery and improve user experiences. The findings also provide policy implications for higher education institutions seeking to enhance library effectiveness in the digital era.

Keywords: Academic libraries, Library service quality, User satisfaction, User engagement, LibQUAL+, Structural Equation Modeling, Higher education.

Introduction

Academic libraries are fundamental components of higher education institutions because they facilitate learning, research, innovation, and knowledge creation. Modern academic libraries no longer function merely as repositories of books; instead, they provide integrated information services through digital collections, electronic databases, institutional repositories, collaborative learning spaces, research support services, and information literacy programs. These transformations have significantly changed users' expectations regarding library services. In the digital age, students and researchers expect libraries to provide seamless access to quality information resources, efficient reference services, user-friendly digital platforms, and technologically advanced learning environments. Consequently, library

administrators must continuously assess service quality to ensure that available services meet or exceed users' expectations. Service quality has emerged as one of the most important determinants of user satisfaction in academic libraries. High-quality services encourage greater library utilization, enhance learning outcomes, improve research productivity, and strengthen institutional reputation. Conversely, poor service quality may discourage library use despite the availability of valuable information resources. User satisfaction reflects the degree to which library services fulfill users' academic and research needs. Satisfied users are more likely to revisit the library, utilize electronic resources frequently, participate in library programs, recommend library services to others, and develop long-term engagement



with library activities. User engagement has therefore become an important performance indicator for modern academic libraries.

Several studies have demonstrated that dimensions such as staff competence, reliability, responsiveness, physical infrastructure, accessibility of electronic resources, and technological support significantly influence users' perceptions of service quality and satisfaction. Recent empirical research also highlights the importance of digital resource accessibility and responsive library staff in shaping overall user experience.

Although considerable research has investigated library service quality, limited empirical studies simultaneously examine the relationships among library service quality, user satisfaction, and user engagement using comprehensive analytical models such as Structural Equation Modeling (SEM), particularly in academic library settings. This study addresses this gap by empirically examining how service quality influences satisfaction and engagement among academic library users.

Review of Literature

Ajith et al. (2025) conducted a comprehensive review to develop a feasible conceptual framework for assessing the effectiveness of academic library services. The study synthesized existing service quality models and identified key dimensions influencing library performance, including resource accessibility, staff competence, technological infrastructure, and user support services. The authors argued that traditional evaluation methods are insufficient for modern academic libraries and proposed an integrated framework that combines service quality indicators with user expectations and institutional outcomes. The review emphasized that continuous assessment of library services is essential for improving user satisfaction and ensuring sustainable library development in higher education institutions.

Devi and Bhatt (2025) examined the relationship between library service quality and user satisfaction in academic libraries.

Their study found that service quality is the primary factor influencing users' perceptions and overall satisfaction with library services. Dimensions such as prompt assistance from library staff, availability of quality information resources, responsiveness to user queries, and access to digital resources significantly contributed to higher satisfaction levels. The authors concluded that libraries should adopt user-centered management practices, regularly assess users' expectations, and improve service delivery to maintain relevance in the rapidly evolving information environment.

Valencia et al. (2025) investigated library service quality and user satisfaction at Quezon City University using a structured survey of library users. The findings revealed that users expressed high satisfaction with the professionalism of library staff, accessibility of learning resources, physical library facilities, and technological services. However, respondents also highlighted the need for expanding digital collections, extending library operating hours, and enhancing internet connectivity to better support academic activities. The study concluded that continuous investment in digital infrastructure and regular assessment of user needs are essential for sustaining high-quality library services and improving user engagement.

Abdullah and Bilal (2015) explored the effectiveness of library services and information resources in academic libraries from the users' perspective. The study examined users' perceptions regarding the adequacy of library collections, accessibility of electronic resources, quality of reference services, and the overall efficiency of library operations. The findings indicated that user satisfaction was strongly influenced by the availability of relevant information resources, prompt assistance from library staff, and convenient access to digital services. The authors emphasized that regular user feedback is essential for identifying service gaps and improving library performance. They concluded that academic libraries should adopt user-centered approaches to



ensure that services align with the evolving information needs of students and researchers.

Hernon and Altman (2018) provided a comprehensive framework for assessing service quality in libraries by emphasizing the importance of meeting and exceeding users' expectations. They argued that service quality should be evaluated not only through traditional performance indicators but also by examining users' perceptions, satisfaction, and experiences. The authors highlighted that effective communication, professional competence of library staff, reliability of services, responsiveness, and continuous quality assessment are fundamental components of excellent library service. Their work has become an important reference for developing user-oriented service quality models in academic libraries.

Cook, Heath, and Thompson (2016) discussed the development and application of the LibQUAL+ model as one of the most widely accepted instruments for measuring library service quality. The framework evaluates service quality through three major dimensions: Affect of Service, which measures the competence and responsiveness of library staff; Information Control, which assesses access to information resources and digital collections; and Library as Place, which evaluates the physical environment and learning spaces provided by libraries. The authors demonstrated that LibQUAL+ offers a reliable and standardized method for identifying users' expectations, measuring perceived service quality, and guiding continuous improvement initiatives in academic libraries.

Corrall (2017) examined the changing role of academic libraries in higher education and emphasized the need to demonstrate the value of library services beyond traditional performance measures. The study argued that academic libraries contribute significantly to student learning, research productivity, and institutional success through high-quality information services and learning support. Corrall suggested that libraries should adopt evidence-based assessment practices that

combine service quality evaluation with measures of user outcomes and institutional impact. The study also highlighted the increasing importance of digital services, collaborative learning environments, and research support in enhancing user satisfaction.

Oakleaf (2016) conducted a comprehensive review of research examining the value and impact of academic libraries on higher education outcomes. The report synthesized empirical evidence showing that effective library services positively influence student academic achievement, information literacy, research performance, retention, and overall institutional effectiveness. Oakleaf emphasized that libraries should systematically assess their contributions using measurable indicators of service quality, user satisfaction, and learning outcomes. The study recommended integrating assessment practices into library management to support continuous improvement, accountability, and strategic decision-making.

Research Gap

Existing literature indicates several limitations:

- Most studies examine only user satisfaction without considering user engagement.
- Limited studies employ comprehensive SEM models integrating service quality, satisfaction, and engagement.
- Digital library services have evolved rapidly, requiring updated empirical evidence.
- Comparative evidence from academic libraries remains limited.
- Few studies investigate the mediating role of user satisfaction between service quality and engagement.

Objectives

1. Assess the quality of services provided by academic libraries.
2. Measure users' satisfaction with library services.
3. Examine the level of user engagement in academic libraries.



4. Analyze the influence of library service quality on user satisfaction.
5. Examine the influence of user satisfaction on user engagement.
6. Develop an empirical model explaining relationships among service quality, satisfaction, and engagement.

Research Questions

1. What is the perceived quality of academic library services?
2. Are users satisfied with available library services?
3. Does library service quality significantly influence user satisfaction?
4. Does user satisfaction influence user engagement?
5. Which service quality dimensions most strongly predict user satisfaction?

Conceptual Framework

Independent Variable

Library Service Quality

- Affect of Service
- Information Control
- Library as Place

↓

Mediator

User Satisfaction

↓

Dependent Variable

User Engagement

Research Methodology

The study adopts a quantitative, descriptive, and explanatory research design. Primary data are collected through a structured questionnaire using a five-point Likert scale. Respondents include undergraduate students, postgraduate students, research scholars, and faculty members from selected academic libraries.

Sample Size: 400 respondents

Sampling Technique: Stratified random sampling

Data Analysis Tools:

- Descriptive Statistics
- Cronbach's Alpha
- Exploratory Factor Analysis
- Confirmatory Factor Analysis
- Correlation Analysis

- Multiple Regression
- Structural Equation Modeling (SEM)

Expected Findings

The study is expected to reveal that:

- Academic library users generally perceive service quality positively.
- Staff responsiveness significantly influences satisfaction.
- Digital information accessibility strongly predicts satisfaction.
- Library environment positively affects engagement.
- User satisfaction mediates the relationship between service quality and engagement.
- Higher service quality leads to greater library usage and participation.

Practical Implications

The findings will help library administrators to:

- Improve digital library infrastructure.
- Enhance staff training and professional development.
- Strengthen user-centered services.
- Increase utilization of electronic resources.
- Improve user retention and engagement.
- Support institutional accreditation and quality assurance initiatives.

Conclusion

Academic libraries play an indispensable role in supporting higher education by providing access to quality information resources, research assistance, and collaborative learning environments. As users increasingly expect technology-enabled, responsive, and personalized services, evaluating library service quality has become central to institutional effectiveness. This paper proposes and supports an empirical framework in which high-quality library services improve user satisfaction, which in turn strengthens user engagement. Contemporary evidence indicates that responsive staff, robust digital resources, and conducive learning spaces are among the most influential factors shaping positive user experiences. Continuous assessment using validated instruments such as LibQUAL+ and



advanced analytical approaches like Structural Equation Modeling can guide evidence-based improvements in library services and help academic libraries remain relevant in the evolving information landscape.

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