



Assessing user experience, satisfaction, and service gaps in enhancing library information services: A case study

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ABSTRACT

This study investigates user experiences, purposes of use, satisfaction levels, and service gaps affecting the quality of library information services at the Student Knowledge Centre, Agricultural College, Bapatla. Using a case study design with a mixed-method approach, data were collected from 150 library users through structured questionnaires and supplemented with interviews of frequent users and library staff. Quantitative data were analyzed using frequency and percentage methods, while qualitative inputs provided deeper insights. The findings reveal that most users visit the library for academic purposes such as examination preparation, research, and project work. Although a majority reported moderate satisfaction, key service gaps were identified, including limited awareness of digital resources, inadequate Internet/Wi-Fi and computer facilities, outdated collections, and insufficient seating during peak hours. The study recommends strengthening digital infrastructure, enhancing staff training, conducting regular user orientation programs, and improving feedback mechanisms to ensure better service delivery and effective resource utilization.

Keywords: *Library Services Quality, Service Gaps, User Experience and User Satisfaction*

Modern academic libraries have undergone a significant transformation from traditional book-lending institutions to dynamic knowledge and information service centers. With the rapid integration of Information and Communication Technologies, libraries now provide access to digital databases, e-journals, institutional repositories, Wi-Fi-enabled learning spaces and other technology-driven services. As a result, user expectations have evolved considerably. Today's users seek not only access to information but also convenience, responsive assistance and conducive learning environments. In this changing scenario, understanding user experience, satisfaction levels and existing service gaps has become essential for ensuring effective and sustainable library service delivery.

In the digital information environment, libraries function as active service providers rather than passive repositories of knowledge. The effectiveness of library information services is increasingly measured by how well they meet user expectations and adapts to emerging academic and research needs. User experience encompasses perceptions related to accessibility, staff support, infrastructure, digital

resources and overall service efficiency. Satisfaction reflects the degree to which these services fulfill user expectations, while service gaps indicate shortcomings that hinder optimal utilization. Identifying and addressing such gaps is crucial for planning, quality enhancement and resource optimization in libraries.

The Student Knowledge Centre, Agricultural College, Bapatla, serves undergraduate students, postgraduate students, and research scholars, providing both print and digital information resources. As academic demands increase and digital learning expands, evaluating the effectiveness of its services becomes imperative. A systematic assessment of user experience and satisfaction can provide valuable insights into strengths, weaknesses, and opportunities for improvement.

The primary purpose of this study is to explore the nature of user experience and satisfaction with existing library information services and to identify key service gaps as perceived by users. Specifically, the study aims to assess user experience with current services, evaluate overall satisfaction levels, identify major service gaps affecting service quality, and suggest strategies for enhancing library information

services. By adopting a structured case study approach, the research seeks to contribute to user-centered planning and continuous service improvement in academic libraries.

MATERIAL AND METHODS

This study employed a case study design combining qualitative and quantitative approaches to examine user experience, satisfaction, and service gaps at the Student Knowledge Center, Agricultural College, Bapatla. The library was purposively selected as a representative academic setting serving undergraduate, postgraduate, and research scholars. Data were collected through a mixed-method approach involving surveys, interviews, and direct observation to ensure validity and reliability through triangulation.

A purposive sample of 150 active library users participated in the survey, and additional interviews were conducted with 10 frequent users and 3 library staff to gain deeper insights into service quality and operational challenges. Quantitative data were analyzed using descriptive statistics, including frequency distribution and percentage analysis, with percentages calculated using standard statistical formulas.

$$\text{Percentage (\%)} = \frac{\text{Total Number of Respondents}}{\text{Respondents in Category}} \times 100$$

To assess overall satisfaction levels, a Satisfaction Index (SI) was computed using weighted scores: $SI = N \sum (f \times w)$

- f = frequency
- w = weight assigned
- N = total respondents

RESULTS AND DISCUSSION

As revealed in the table 1 that library use a substantial proportion of respondents primarily utilizes the library for academic purposes. Out of 150 respondents, 30% reported using the library for examination preparation, followed by 24% for research work and 20% for project or assignment preparation. Collectively, 74% of users depend on the library for core academic activities, indicating its central role in supporting teaching–learning and research functions. In contrast, 14% of respondents

reported browsing e-resources as their main activity, while only 6% each used the library for recreational reading and accessing newspapers and magazines. The findings suggest that the library is perceived predominantly as an academic support center rather than a leisure or informal learning space.

Table 1. Purpose of Library Use among Respondents (N = 150)

Purpose of Use	Number of Respondents	%
Exam Preparation	45	30%
Research Work	36	24%
Project/Assignment Preparation	30	20%
Browsing e-Resources	21	14%
Recreational Reading	9	6%
Others (Newspapers, Magazines)	9	6%

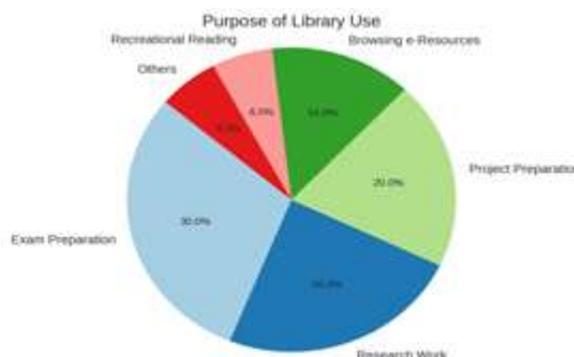


Figure 1. Purpose of Library Use by user of Agricultural College, Bapatla

User satisfaction levels (Table 2; Figure 2) indicate that the majority of respondents (56%) were moderately satisfied with library services, while 24% expressed high satisfaction. However, a notable 20% of users reported dissatisfaction. The dominance of moderate satisfaction suggests that although the library meets essential user expectations, there remains significant scope for qualitative improvement. Dissatisfaction was mainly attributed to limited access to updated digital resources, inadequate seating capacity during peak hours, and insufficient user orientation programs. These findings imply that infrastructural and digital resource limitations continue to affect the overall user experience.

Table 2. User Satisfaction Levels with Library Services

Satisfaction Level	Number of Users	%
Highly Satisfied	36	24%
Moderately Satisfied	84	56%
Dissatisfied	30	20%

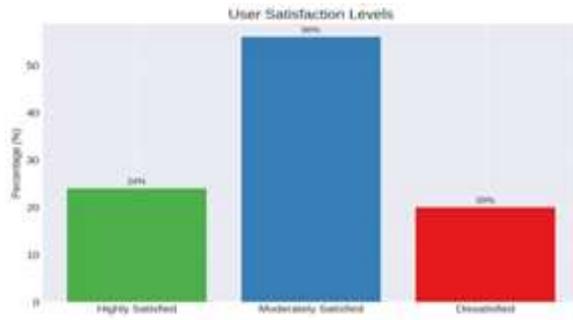


Figure 2. User Satisfaction Levels

The analysis of major service gaps (Table 3; Figure 3) further explains the reasons underlying moderate satisfaction and dissatisfaction levels. A significant 65% of respondents reported a lack of awareness regarding available digital resources, making it the most prominent service gap. This indicates that resource availability alone does not guarantee effective utilization unless accompanied by systematic user orientation and awareness initiatives. Additionally, 52% of users identified limited working hours as a constraint, particularly during examination periods. Nearly half of the respondents (48%) perceived the collection as outdated, while 45% highlighted inadequate seating during peak hours. Furthermore, 30% pointed to poor grievance redressal mechanisms, reflecting the need for more structured and responsive feedback systems.

Table 3: Major Identified Service Gaps

Service Gap Identified	%
Lack of awareness of digital resources	65%
Limited working hours	52%
Outdated collection	48%
Inadequate seating during peak times	45%
Poor grievance redressal	30%

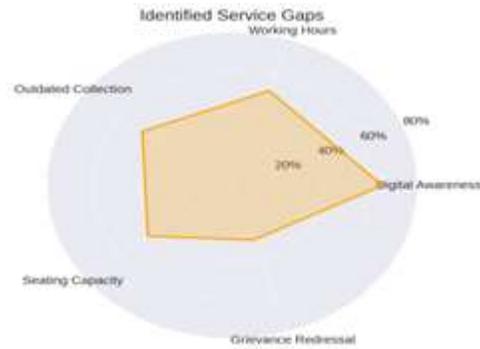


Figure 3. Major Identified Service Gaps

CONCLUSION

The study underscores the pivotal role of user experience and satisfaction in determining the effectiveness of library information services. A majority of respondents primarily use the library for academic purposes such as examination preparation, research, and project work, reflecting its central importance in supporting learning and scholarly activities. Although most users reported moderate satisfaction, important concerns were identified regarding limited access to updated digital resources, inadequate seating during peak hours, restricted working hours, and insufficient awareness of available e-resources. These service gaps significantly influence overall user perception and limit optimal utilization of library services.

The findings highlight the necessity of adopting a user-centered approach in library management. Strengthening digital collections, conducting regular user orientation programs, improving infrastructure, extending access during examination periods, and establishing effective feedback mechanisms are essential measures to enhance service quality. Continuous evaluation and adaptive planning will ensure that library services remain responsive, relevant, and aligned with the evolving academic and information needs of users in the digital era.

LITERATURE CITED

Bell S J 2014. Design Thinking for Libraries: A Toolkit for Patron-Centered Innovation. IDEO and Chicago Public Library.

Hernon P and Altman E 2010. Assessing Service Quality: Satisfying the Expectations of Library Customers. ALA Editions.

Kaur A and Rani S 2016. User satisfaction with library services in selected college libraries.

- Journal of Library and Information Science*, 6(2): 45–52.
- Naik R and Shivalingaiah D 2008.** Total quality management in academic libraries. *DESIDOC Journal of Library and Information Technology*, 28(5): 36–41.
- Parasuraman A Zeithaml VA and Berry LL 1985.** A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4): 41–50.
- Raworth C 2020.** User Experience and Libraries: The Case for UX Design in Academic Libraries. *Library Trends*, 68(4): 585–601.
- Yin R K 2018.** Case Study Research and Applications: Design and Methods. SAGE Publications.
- Mubofu C 2024.** Experiences, purposes, satisfaction and missing library services as predictors of library information services provision: A case study. *Alexandria*, 33(1-3): 64-79. <https://doi.org/10.1177/09>
- Shukla A and Mishra R 2025.** User experience and accessibility in college libraries: A study of ICT infrastructure and digital services. *International Journal of Research – Granthaalayah*, 13(2): 45–58. <https://doi.org/10.29121/>
- Gattagoni P and Bhatt R 2024.** A comprehensive study on library service quality: Bridging user perception gaps using LibQUAL+. *Library Progress International*, 44(1): 23–36. <https://bpasjournals.com/library-science/index.php/journal/article>
- Mairaj M 2013.** Library services and user satisfaction in developing countries: A comparative analysis. *Health Information and Libraries Journal*, 30(2): 140–149. <https://doi.org/10.1111/hir.12014>
- Mahmood K, Arshad A and Aslam A 2021.** Evaluating library service quality of college libraries: The perspective of a developing country. *Sustainability*, 13(5): 29-39. <https://doi.org/10.3390/su>
- Jabeen M, Qing T and Shafi M 2017.** Usability study of digital libraries in Nanjing: Users' satisfaction and expectations. *Library Collections, Acquisitions & Technical Services*, 41(3–4): 107–114.

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