



Awareness and Utilization of Library Resources and Services: A Study of Central Universities in Bihar

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ABSTRACT

Purpose: This study investigates the levels of awareness, frequency of utilization, and user satisfaction regarding library resources and services within the higher education ecosystem of Bihar. It highlights the operational dynamics of modernizing university libraries as they transition into hybrid environments, specifically examining the alignment between resource availability and actual user utility. **Methodology:** Utilizing a mixed-methods research design, a structured questionnaire was distributed to a sample of 300 active, research-engaged library users (postgraduate students, research scholars, and faculty members) across all four Central Universities in Bihar. A total of 274 valid responses were received, representing a 91.33% response rate. The quantitative data was evaluated using statistical frequency distributions and ranking methods, supplemented by qualitative thematic analysis from in-depth interviews with library staff and users. **Findings:** The data reveals a distinct "familiarity gradient" where foundational physical materials like newspapers (93.80% combined awareness) and mainstream digital formats like e-books (84.67%) command high recognition, while specialized scholarly platforms remain heavily obscured, such as online databases (54.74% unaware) and Institutional Repositories (64.23% unaware). A pronounced instructional divide exists: despite 70.80% awareness of library orientation programs, 49.64% of respondents have never participated in training. Furthermore, while traditional book circulation (85.77%) and reference services (81.02%) enjoy high user satisfaction, campus digital infrastructure lags significantly, with slow internet speeds emerging as the top operational barrier to library utilization. **Value/Conclusion:** The study underscores a persistent "utility and skills gap" in regional central libraries. To optimize substantial institutional investments and satisfy modern academic workflows, the paper recommends a strategic shift from passive promotion to proactive, mandatory hands-on digital literacy campaigns alongside necessary upgrades to campus network bandwidth.

Keywords: Academic Libraries; Central Universities of Bihar; Electronic Resources (E-Resources); Library Resource Utilization; Information Seeking Behavior; Digital Literacy; Hybrid Libraries; User Satisfaction

INTRODUCTION

Libraries are essential components of the higher education ecosystem, evolving from traditional print repositories into dynamic hubs for information access. Their primary objective is to support the diverse academic and research endeavors of students, faculty, and researchers. However, a significant gap persists in understanding user awareness—knowing what resources exist and how to use them—and actual utilization, both of which directly impact academic performance and research output. In the digital era, the information landscape has been

transformed by electronic resources (e-resources), such as: E-books and online journals; Academic databases and digital archives; Multimedia and interactive learning tools.

Accessible anytime and anywhere, e-resources cater to diverse learning styles, offer regularly updated content, and provide cost-effective alternatives to traditional print media. Consequently, university libraries play a critical role in managing these assets to enhance the overall educational experience. For modern library management, understanding the alignment between resource availability, user awareness, and actual utility is vital. This

study investigates the levels of awareness and utilization of library resources and services among users in the **Central Universities of Bihar**. By identifying current usage patterns and barriers to access, this research aims to provide actionable insights to enhance user engagement, improve resource accessibility, and help libraries adapt to the evolving digital needs of their academic communities.

LITERATURE REVIEW

The reviewed literature from 2015 to 2025 highlights a global transition of academic libraries into modern, computerized "hybrid libraries" that blend traditional print collections with electronic resources, driven by massive institutional spending and library consortia (Sinha, 2018; Kumar et al., 2015). However, this digital evolution faces a persistent "utility and skills gap"; while awareness of e-resources is consistently high among students and faculty, actual effectiveness is hindered by a lack of data retrieval skills, technical difficulties, and insufficient instructional training (Kumar et al., 2025; Chaudhary et al., 2025; Tafros et al., 2017). Furthermore, institutional infrastructure deficits—such as poor internet connectivity and sub-optimal ICT service delivery—frequently conflict with the high-tech expectations of modern users, occasionally driving a continued preference for traditional print materials (Kashyap & Gautam, 2025; Suman & Patel, 2024; Abdelrahman, 2015). Concurrently, user access habits are shifting rapidly, with a critical mass of scholars now accessing digital content and e-books via mobile devices, signaling an urgent need for institutions to optimize web accessibility and mobile-friendly library interfaces (Chaudhary et al., 2025; Tunga, 2021).

RESEARCH METHODOLOGY

The primary objective of this study is to systematically analyze user awareness and utilization patterns of library resources within the Central Universities of Bihar. The target population comprises active research-engaged library users across all four Central Universities in Bihar: Central University of South Bihar (CUSB), Gaya;Nalanda University, Rajgir; Mahatma Gandhi Central University (MGCUB), Motihari and Dr. Rajendra Prasad Central Agricultural University, Samastipur.

A mixed-methods approach was adopted to gather both quantitative and qualitative insights. A structured questionnaire designed around the research objectives was distributed to a sample of 300 library users across the four selected universities. The resulting data will undergo statistical analysis. In-depth interviews will be conducted with library staff and users to capture detailed experiences and perceptions. This data will be evaluated using thematic analysis.

While Bihar houses 20 State Universities, 7 Private Universities, and 2 Deemed-to-be Universities, the geographic and institutional scope of this study is strictly limited to the state's **four Central Universities** (CUSB, Nalanda University, MGCUB, and Dr. Rajendra Prasad Central Agricultural University). Consequently, the findings will specifically reflect the unique infrastructure, knowledge collections, and modern technological services of these four institutions, offering targeted insights for the field of Library and Information Science.

DATA ANALYSIS AND INTERPRETATION

This paper of the present research study serves as the central axis of the entire investigation; its primary objective is to conduct an in-depth examination of user behavioral patterns, specific academic requirements, and levels of awareness regarding available resources within the library ecosystems of Central Universities in Bihar. This process of statistical analysis is not merely a compilation of data, but rather a nuanced endeavor to comprehend the insights and expectations of the users—including postgraduate students, research scholars, and faculty members. Through the interpretation of primary data, this chapter seeks to elucidate the extent to which current library services are effective in fulfilling academic objectives, as well as the nature of the shifts occurring in users' information-seeking behaviors.

To reinforce the scientific validity and authenticity of the study, questionnaires were distributed to a total of 300 respondents for the survey; the receipt of 274 valid responses (91.33%) demonstrates the high reliability and comprehensive scope of the research. Various statistical tables and modern graphical techniques have been employed to present the compiled data in a systematic manner, thereby rendering complex data both intelligible and visually lucid. This analytical framework not only highlights the actual status of the current library infrastructure and services within Bihar's Central Universities but also provides a robust, evidence-based foundation for the strategic expansion and modernization of digital library resources and information retrieval systems in the years to come.

Awareness of Library Resources

Table 1: Level of Awareness Regarding Printed Resources (N=274)

Type of Resource	Fully Aware	Aware	Partially Aware	Not Aware	Total
Textbooks/Reference Books	185	62	21	6	274
Printed Research Journals	82	98	65	29	274
Theses/Dissertations	74	85	81	34	274

Newspapers and 212 45 12 5 274
Magazines

The table-1 reveals a stark "familiarity gradient" among the 274 respondents, where awareness drops sharply as resources transition from general to specialized. Highly visible foundational assets dominate user recognition, led by newspapers/magazines at **93.80%** combined awareness (**77.37%** fully aware) and textbooks/reference books at **90.15%** combined awareness (**67.52%** fully aware), with un-awareness rates remaining under 3%. In contrast, specialized academic resources face significant obscurity; printed research journals are fully recognized by only **29.93%** of the cohort, while theses/dissertations record the lowest absolute familiarity at **27.01%** fully aware alongside the highest total deficit of **12.41%** completely unaware users. This clear polarization indicates that while basic print infrastructure is universally understood, up to 42% of the sample lacks a complete understanding of primary research literature, signaling a critical need for targeted library orientation programs.

Table 2: Awareness Regarding E-Resources (N=274)

E-Resource	A w a r e (No. / %)	U n a w a r e (No. / %)	T o t a l (No. / %)
E-Journals (e.g., UGC-CARE)	1 6 8 (61.31%)	106 (38.69%)	2 7 4 (100%)
E-Books	2 3 2 (84.67%)	42 (15.33%)	2 7 4 (100%)
Online Databases (Scopus, J-Gate, etc.)	1 2 4 (45.26%)	150 (54.74%)	2 7 4 (100%)
Institutional Repositories (IR)	98 (35.77%)	176 (64.23%)	2 7 4 (100%)
Shodhganga / Shodhgangotri	2 0 5 (74.82%)	69 (25.18%)	2 7 4 (100%)

The data (table 2) shows a pronounced variation in user awareness across different electronic resources among the 274 respondents, highlighting a distinct gap between mainstream digital content and specialized research platforms.

High-accessibility formats and mandatory academic repositories command the highest recognition. **E-Books** lead the list with an awareness rate of **84.67%** (n=232), followed closely by **Shodhganga / Shodhgangotri** at **74.82%** (n=205), and **E-Journals** (e.g., UGC-CARE) at **61.31%** (n=168). Conversely, specialized analytical tools and institution-specific platforms suffer from significant obscurity. A majority of the cohort remains entirely "Unaware" of **Online Databases** like Scopus or J-Gate (**54.74%**; n=150), while **Institutional Repositories (IR)** record the highest total deficit with **64.23%** (n=176) of respondents unfamiliar with them. This polarization

indicates that while general digital reading materials and national thesis repositories are widely understood, advanced indexed databases and localized institutional archives remain underutilized, signaling a clear need for targeted electronic library literacy campaigns.

Table 3: Awareness of Library Orientation Programs (N=274)

Particulars	Y e s (Count / %)	N o (Count / %)	T o t a l (Count / %)
Are you aware of the orientation programs?	1 9 4 (70.80%)	80 (29.20%)	274 (100%)
Have you ever participated in any training?	1 3 8 (50.36%)	1 3 6 (49.64%)	274 (100%)

The data (table-3) reveals a noticeable gap between user awareness and actual participation regarding library orientation and training programs among the 274 respondents. While a clear majority of **70.80%** (n=194) are aware of these orientation programs, actual participation in training drops significantly, splitting the cohort almost equally: **50.36%** (n=138) have participated, while **49.64%** (n=136) have never taken part. This disparity indicates that while the library's promotional efforts regarding orientation are largely successful, nearly half of the user base remains untrained, highlighting a critical need to convert awareness into active participation through better scheduling, mandatory sessions, or targeted incentives.

Resource Utilization (Utilization Patterns)

Table 4: Frequency of Library Visits (N=274)

Frequency	Number (Count)	Percentage (%)
Daily	24	8.76%
2-3 times a week	102	37.23%
Once a week	106	38.69%
Once a month	33	12.04%
Occasionally / Rarely	9	3.28%
Total	274	100.00%

The data from the table 4 reveals that a vast majority of the 274 respondents maintain a steady, routine engagement with the library, with weekly visits forming the bedrock of user traffic. The largest segment of users visits once a week (**38.69%**, n=106), followed very closely by those who attend 2–3 times a week (**37.23%**, n=102). Together, these two periodic cohorts account for a commanding **75.92%** of all library patrons.

In contrast, highly frequent daily users represent a small minority at just **8.76%** (n=24), while infrequent

visitors—comprising those who visit once a month (12.04%, n=33) or occasionally/rarely (3.28%, n=9)—make up the remaining portion. This distribution indicates that while the library serves as a vital regular resource for over three-quarters of the sample on a weekly basis, it functions less as a daily workspace, suggesting an opportunity to enhance daily infrastructure or digital study spaces to encourage more continuous on-site engagement.

Table 5: Purpose of Library Resource Utilization (Purpose of Use) (N=274)

Purpose	Frequency (f)	Percentage (%)
Examination Preparation	104	37.96%
Research Work / Thesis Writing	82	29.93%
Research Paper Writing	48	17.52%
General Awareness / News	24	8.76%
Teaching / Lecture Preparation	16	5.83%
Total	274	100.00%

The data (table 5) reveals that library resource utilization among the 274 respondents is primarily driven by academic milestones and advanced research activities. **Examination Preparation** emerges as the leading purpose for library use, accounting for the largest single segment at **37.96%** (n=104). High-level academic scholarship also represents a massive driver of library traffic; when combining **Research Work / Thesis Writing** (29.93%; n=82) and **Research Paper Writing** (17.52%; n=48), research-driven activities collectively account for a commanding **47.45%** (n=130) of total resource utilization. In contrast, non-research and routine academic tasks are less prevalent, with **General Awareness / News** cited by **8.76%** (n=24) of users, and **Teaching / Lecture Preparation** representing the smallest cohort at just **5.83%** (n=16). This distribution indicates that while individual coursework evaluation remains a powerful motivator, the library acts predominantly as a critical research hub for nearly half of its user community.

Table 6: Preferred Format for Information Retrieval (N=274)

Format	Frequency (n)	Percentage (%)
Print Only	42	15.33%
Electronic Only (E-Format)	86	31.39%
Both (Hybrid)	146	53.28%
Total	274	100.00%

The data demonstrates a clear user preference for flexibility, with a majority of the 274 respondents favoring an integrated approach to information retrieval. The **Both (Hybrid)** format is overwhelmingly the most popular choice, selected by **53.28%** (n=146) of the cohort, underscoring that contemporary users rely on a blend of physical and digital materials. Among those who prefer a singular medium, digital content holds a significant edge; **31.39%** (n=86) of respondents opt for **Electronic Only (E-Format)**, which is more than double the **15.33%** (n=42) who prefer **Print Only**. This distribution indicates that while the demand for traditional print remains intact for a minor segment, the academic community has heavily embraced digital environments, with more than 84% of total users expecting electronic accessibility either exclusively or alongside physical collections.

Table 7: Evaluation of Resource Reliability and Quality (N=274)

Basis for Evaluation	Frequency (n)	Percentage (%)
Institutional Affiliation	46	16.79%
Peer-Reviewed Sources	84	30.66%
Citation Count	32	11.68%
Teachers' Recommendation	112	40.88%
Total	274	100.00%

The data indicates that institutional authority and academic mentorship are the primary benchmarks used by the 274 respondents to evaluate resource reliability and quality. **Teachers' Recommendation** emerges as the most influential factor, leading the evaluation criteria at **40.88%** (n=112), which underscores the vital role faculty guidance plays in shaping student trust. Formal scholarly metrics also serve as critical validation tools; **Peer-Reviewed Sources** represent the second-highest preference at **30.66%** (n=84), followed by **Institutional Affiliation** at **16.79%** (n=46). In contrast, quantitative impact metrics are utilized far less frequently, with **Citation Count** cited as the primary basis for evaluation by only **11.68%** (n=32) of the cohort. This distribution indicates that while independent academic validation methods (like peer review) are highly valued, users rely most heavily on the direct, structured endorsements of their instructors to determine the credibility of academic literature.

Table 8: Level of User Satisfaction with Library Services (N=274)

Type of Service	Highly Satisfied	Satisfied	Neutral	Dissatisfied	Total (n)
Book Circulation	110	125	32	7	274

Internet/Wi-Fi Facility	45	82	94	53	274
Online Catalog (OPAC)	62	118	68	26	274
Reference Service	88	134	42	10	274

The data reveals varying levels of user satisfaction across different library provisions among the 274 respondents, showing a clear distinction between traditional services and digital infrastructure. Core administrative and interpersonal services yield the highest user approval. **Reference Service** leads with the highest combined satisfaction rate at **81.02%** (88 "Highly Satisfied" and 134 "Satisfied"), closely followed by **Book Circulation** at **85.77%** (110 "Highly Satisfied" and 125 "Satisfied"). Both services show minimal negative feedback, with only a handful of dissatisfied users. Digital provisions show a much more fragmented satisfaction profile. The **Online Catalog (OPAC)** maintains a reasonably strong positive standing with a **65.69%** combined satisfaction rate (62 "Highly Satisfied" and 118 "Satisfied"). In contrast, the **Internet/Wi-Fi Facility** recorded the lowest performance metrics in the study; only **46.35%** of users expressed satisfaction (45 "Highly Satisfied" and 82 "Satisfied"), while a substantial **34.31%** remained **Neutral** (n=94) and **19.34%** reported being explicitly **Dissatisfied** (n=53). This distribution indicates that while the library's conventional circulation and reference mechanisms are highly effective, the digital experience—specifically network connectivity—presents a noticeable bottleneck that dampens overall user satisfaction.

Table 9: Barriers to Resource Utilization (N=274)		
Barriers	Frequency (n)	Rank
Slow Internet Speed	92	I
Lack of Awareness	68	II
Lack of Training	54	III
Inadequate Print Collection	35	IV
Limited Library Hours	25	V
Total	274	--

The data outlines the primary obstacles hindering effective library resource utilization among the 274 respondents, establishing a clear hierarchy of infrastructural, educational, and operational challenges.

Technical and digital infrastructure deficits emerge as the most critical bottleneck, with **Slow Internet Speed** ranked **I**, cited by **33.58%** (n=92) of the cohort. This is closely followed by user-centric educational barriers, where **Lack of Awareness** ranks **II** at **24.82%** (n=68) and **Lack of Training** ranks **III** at **19.71%** (n=54). Together,

these three digital and educational challenges account for a dominant **78.10%** of all reported user grievances.

In contrast, traditional and logistical constraints are less pronounced but remain notable factors; **Inadequate Print Collection** ranks **IV** at **12.77%** (n=35), while operational limitations, specifically **Limited Library Hours**, rank **V** as the least pressing barrier at **9.12%** (n=25).

This prioritized distribution indicates that the primary friction points for users are modern digital infrastructure failures and a persistent "skills gap," suggesting that institutional interventions should focus heavily on upgrading network bandwidth and expanding library literacy programs rather than altering basic physical operations.

MAJOR FINDINGS

- Users are highly aware of basic print items like newspapers (**93.80%**) and e-books (**84.67%**). However, specialized research assets suffer from severe obscurity; **54.74%** are unaware of online databases (e.g., Scopus) and **64.23%** are unaware of Institutional Repositories.
- While **70.80%** of respondents know about library orientation programs , nearly half (**49.64%**) have never actually participated in any training.
- Library visits are highly routine, with **75.92%** of patrons visiting weekly (either once or multiple times a week). Resource use is primarily driven by academic milestones: exam preparation (**37.96%**) and research/thesis activities (**47.45%** combined).
- A majority of users (**53.28%**) prefer a hybrid approach (blending print and electronic media). To judge resource reliability, they rely most heavily on faculty guidance through teachers' recommendations (**40.88%**).
- While traditional services like book circulation (**85.77%**) and reference services (**81.02%**) enjoy high satisfaction, digital infrastructure lags. The campus Internet/Wi-Fi facility recorded the lowest satisfaction (**46.35%**) and was ranked as the number one overall barrier to library utilization.

CONCLUSION

This study demonstrates that while the library ecosystems within the Central Universities of Bihar successfully maintain high satisfaction rates for traditional services like book circulation and personal reference assistance, they face critical bottlenecks in digital optimization and user literacy. A distinct "awareness-participation gap" persists; although general print resources and basic e-books enjoy massive visibility , specialized research databases and institutional repositories remain heavily obscured. This deficit is severely compounded by an instructional divide,

where nearly half of the user base has never participated in formal training despite being aware of library orientation programs. To satisfy modern academic workflows, users have decisively embraced a hybrid information environment, showing a heavy reliance on faculty recommendations to evaluate resource reliability.

Ultimately, the digital experience is significantly hindered by infrastructure deficits, with slow internet speeds ranking as the primary operational barrier to effective resource utilization. To bridge this "utility and skills gap" and maximize institutional investments, the central universities must transition from passive promotional efforts to proactive, structured digital literacy campaigns. Upgrading campus network bandwidth and transforming orientation programs into mandatory, hands-on sessions will allow these libraries to successfully shift from basic text repositories into fully optimized knowledge hubs capable of sustaining modern academic scholarship.

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