

NEED, AWARENESS AND USE OF LIBRARY RESOURCES AMONG THE USERS OF INDIAN INSTITUTES OF SCIENCE EDUCATION AND RESEARCH: A STUDY

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ABSTRACT

INTRODUCTION

This research delves into the dynamics of library resource utilization among postgraduate students and research scholars at the Indian Institutes of Science Education and Research (IISERs). The study aims to provide a detailed understanding of the awareness, needs, and preferences of users regarding both traditional and electronic resources. The research also explores the challenges faced by users in accessing these resources and evaluates their satisfaction with the offerings of IISER libraries.

In the world of education, the connection between those seeking knowledge and the wealth of information stored in libraries is incredibly important. Libraries are not just buildings with books. They are like treasure troves of information. As we go deeper into this research, we are not just looking at libraries as book storage. We see them as lively spaces where people come to learn and explore. This study is our attempt to unravel the details of what users truly need, how much they know about the library's offerings, and how they make use of these resources in their academic journey.

Objectives of the Study

The following objectives guides to the exploration of Need, Awareness and Use of Library Resources:

1. To understand the awareness, need and use of library resources.
2. To determine the frequency and purpose of library visits.
3. To know the preference of users regarding print resources and electronic

resources.

4. To find out the awareness and use of open access resources.
5. To identify the problems faced by the users in accessing the resources.
6. To identify user satisfaction towards resources of the library.
7. To investigate the resources provided by the library.

Statement of the Problem

By examining the need, awareness, and utilization aspects of library resources among the users of IISERs, the study aims to shed light on the current status of library usage within these prestigious institutions. The findings will provide valuable insights for library management to enhance their services and better cater to the information needs of the academic community. Additionally, the study results may contribute to improving the overall educational and research outcomes at IISERs by ensuring that their users are making the most effective use of available library resources.

Significance of the Study

1. Users can access vast array of resources (or through) the library.
2. Library resources help users to use and cite materials accurately.
3. The library offers computers and Internet service, which make it possible for them to complete their related study work.
4. It helps and aware the users about the library services and facilities that can enhance their research work.

Hypotheses of the Study

1. H1- IISER Libraries are providing sufficient resources.
2. H2- Users are satisfied with library resources.
3. H3- Electronic resources are preferred over print resources.

4. H4- Users are not fully aware about the library resources.

Scope and Limitation

The scope of the study encompasses “NEED, AWARENESS AND USE OF LIBRARY RESOURCES AMONG THE USERS OF INDIAN INSTITUTES OF SCIENCE EDUCATION AND RESEARCH”. The study is limited to postgraduate students and research scholars.

Table 1 .1 List of Institutes

S. No	Institutes	State	Year
1	IISER, Kolkata	West Bengal	2006
2	IISER, Pune	Maharashtra	2006
3	IISER, Mohali	Punjab	2007
4	IISER, Bhopal	Madhya Pradesh	2008
5	IISER, Thiruvananthapuram	Kerala	2008
6	IISER, Tirupati	Andhra Pradesh	2015
7	IISER ,Berhampur	Odisha	2016

The provided table outlines the establishment years and locations of various Indian Institutes of Science Education and Research (IISERs). These institutions, spread across different states in India, play a significant role in fostering scientific education and research.

Research Methodology

The research focuses on assessing the needs, awareness, and use of library resources in Indian Institutes of Science Education and Research (IISERs). A survey-based study was conducted, targeting both librarians and users across multiple IISER campuses. This section outlines the research design, participants, data collection

methods, data analysis, and ethical considerations.

The research methodology employed for this study was a survey-based method involving data collection from the Indian Institute of Science Education and Research in India. The data was gathered through the utilization of both paper-based and online questionnaires

The survey instruments included separate questionnaires for librarians and users, designed to capture relevant information regarding library resources, services, and user experiences.

The target population for this study comprised librarians and users associated with Indian Institutes of Science Education and Research (IISERs). Utilizing a simple random sampling technique, representation was ensured from each IISER campus. The sample included librarians responsible for the management of library resources and diverse users, such as students and researchers.

In particular, 7 questionnaires were specifically designed for distribution among librarians, and all were successfully returned. Out of the overall 500 questionnaires distributed to the participants, a total of 361 were received back, indicating a robust response rate.

Questionnaires were distributed separately to librarians and users, with the librarian questionnaire centering on library management strategies and challenges. Meanwhile, the user questionnaire delved into information-seeking behaviors, awareness levels, and satisfaction with available resources.

Qualitative and quantitative data obtained from the survey responses were analyzed using Microsoft Excel. Descriptive statistics provided an overview of central tendencies and variations, while inferential analyses explored relationships and

patterns in the data.

After data collection, the survey responses were analyzed using Microsoft Excel, facilitating the organization and interpretation of qualitative and quantitative data. Statistical analytical tools were employed to create relevant tables for each aspect. The analysis encompassed several steps, including data categorization, coding, tabulation, and thorough examination. A summary of the survey questions was organized in correspondence with the questionnaire order. Distinct tables, graphs, and textual representations were crafted for various aspects explored in the survey.

Structure of the Thesis

The present study is divided into the following chapters:

Chapter-1 Introduction

The chapter 1 of the thesis serves as a foundation, elucidating the background and historical context of libraries. It delves into the transformative influence of the Internet and Information and Communication Technology (ICT) on libraries, exploring their evolution over time. The chapter addresses critical aspects such as information needs, and the awareness and utilization of library resources in the contemporary digital age. Additionally, it systematically presents the objectives, scope, hypothesis, and methodology that guide the study, establishing a comprehensive framework for the subsequent chapters.

Chapter-2 Review of Literature

In the chapter 2, the literature review comprehensively examines previous and recent studies, providing a detailed overview, summarization, and clarification of the research. This review establishes a theoretical foundation for the study, aiding the

researcher in presenting their research within the broader context of existing literature.

Chapter-3 Central Libraries of Indian Institutes of Science Education and Research: A Profile

The chapter 3 presents a brief introduction to central libraries of Indian Institutes of Science Education and Research.

Chapter-4 Data Analysis and Interpretation

Chapter 4 presents the collected data in tabulated form, conducts statistical analysis, offers interpretations, and provides graphical representations of the information gathered from libraries and users.

Chapter-5 Findings, Hypothesis, Conclusion and Suggestions

The chapter 5 outlines the key discoveries and conclusions drawn from the study. It encompasses the study's recommendations and proposes suggestions for future research exertions.

The thesis concluded with bibliographic references and appendices.

Major Findings of the Study

Summary of the findings derived from the questionnaires administered to the librarians.

This research finds several findings, and these are condensed and categorized under various headings:

Distribution of the Librarian Questionnaire across Institutes

Achieving a 100% response rate, all seven IISERs ensured comprehensive involvement in the survey, with each institute completing one questionnaire,

guaranteeing uniform representation. The statistical data underscores consistent and equally engaged participation from diverse regions, contributing to a robust dataset for analysis.

Staff Details

Most IISERs, except IISER BHO, employ librarians, emphasizing the pivotal role of library professionals. IISER BHO and IISER TPTY have a sole deputy Librarian, representing a distinct organizational structure. A standardized approach is observed, with five assistant librarians consistently across all IISERs.

Furthermore, IISER MOH, IISER BHO, and IISER TPTY each have five Library Professionals, contributing to a specialized workforce. The staffing pattern for library assistants is generally five, with IISER MOH being an exception. Varying numbers of library attendants reflect diverse team structures.

Enriching the teams are specialized roles, such as IISER TVM's semi-professional Assistant and IISER PUN's unique Outsourced staff member. IISER MOH exhibits commitment to training with two library professional trainees.

Collection Development Policy in IISERs

All seven surveyed institutes, comprising 100% of the sample, have implemented a collection development policy, indicating a collective commitment to systematic and comprehensive resource management strategies. This widespread adoption signifies strong institutional support for organized acquisition, evaluation, and management of resources, aligning with diverse user needs and supporting academic and research goals.

Format of Collection Development Policy of IISERs

All surveyed IISERs, including IISER KOL, IISER PUN, IISER MOH, IISER BHO, IISER TVM, IISER TPTY, and IISER BAM, uniformly implement written collection development policies, indicating a comprehensive adoption of formalized practices. The absence of unwritten policies emphasizes consistent documentation, promoting clarity and transparency in resource management. Additionally, while IISER PUN and IISER BAM offer short summaries, five IISERs (IISER KOL, IISER MOH, IISER BHO, IISER TVM, and IISER TPTY) maintain detailed, comprehensive policies, showcasing variations in format and depth. This analysis underscores a standardized adoption of written policies across IISERs, with variations in documentation practices.

Library Committee

The tabulated data 4.5 reveals that all seven institutes surveyed, constituting 100% of the sample, have a dedicated "Library Committee" in place. This signifies a universal establishment of committees across the institutes, each tasked with overseeing and guiding the functions and operations of their respective libraries. The study underscores a consistent and comprehensive practice of instituting Library Committees within the surveyed academic institutions.

Library Committee Members

Provide insights into the composition of the library committee members. The data indicates that the majority of committee members, comprising 32%, belong to the teacher and convener category. Following closely behind are librarians, accounting for 26% of the committee members. In contrast, students and deputy librarians form a smaller percentage, making up only 5% of the committee.

Print Resources Collection

The analysis of print resources among various institutions reveals variations in collection sizes. IISER PUN exhibits the most extensive collection, with 30,000 books, over 1,200 bound volumes, and 200 reference sources. In contrast, IISER TPTY has the smallest book collection, totaling over 5,000. In journal subscriptions, IISER TPTY leads with 47 subscriptions, while IISER BAM has the least with just 7. For print Theses and Dissertations, IISER BHO leads with a collection of over 1,096, while IISER TPTY has the smallest collection in this category.

Electronic Resources Collection

IISER Kolkata (KOL) leads in digital resources with an impressive e-books collection of 13,000, showcasing a strong commitment to a comprehensive digital repository. This dedication is vital in adapting to the evolving scholarly landscape and meeting the diverse information needs of its academic community. Simultaneously, IISER Bhopal (BHO) excels in scholarly journals, boasting an extensive collection of 8000.

Services Offered by Library

It was found from the study that all IISER institutions (KOL, PUN, MOH, BHO, TVM, TPTY, and BAM) provide essential library services, including issuing and returning materials, an Overdue Alert Service, and online access through a Web OPAC. Specialized services like document delivery and current awareness are available at IISER KOL, PUN, MOH, BHO, and BAM, demonstrating a commitment to tailored user support. However, newspaper clippings services are absent at TPTY.

Photocopying and scanning services are offered at IISER KOL, PUN, MOH, BHO, and BAM, but not at TVM and TPTY. Reference services are universally available at all institutions, ensuring comprehensive academic support. Digital repositories are maintained by each institute, emphasizing the importance of preserving digital

content. Library orientation programs are conducted by IISER KOL, PUN, MOH, BHO, and BAM, excluding TVM and TPTY. Inter-Library Loan Services are available at PUN, MOH, and BHO, fostering resource sharing. Training programs are conducted by PUN, MOH, BHO, and BAM, excluding TVM and TPTY. Remote login services for accessing resources are provided by all institutions. Plagiarism checking services are available at all institutions except TVM. User interaction is facilitated through an Ask Librarian Service at PUN, MOH, BHO, TVM, and BAM, with KOL and TPTY not offering this service.

Establishment Year of Library Automation

The study reveals the automation timeline of various IISER institutes. IISER KOL, PUN, and MOH were early adopters, automating in 2012, followed by IISER BHO in 2014. IISER TVM and TPTY joined in 2015, and IISER BAM implemented automation in 2016. This indicates a phased and deliberate approach to adopting automation technologies across the IISER network.

Coverage of Library Automation of individual IISERs

It is observed from the study that there is a significant level of automation across various library activities in all seven IISER libraries. Essential functions such as acquisition procedures, circulation, cataloguing, and others are fully automated, indicating a robust technological integration. While budgeting and stock verification are partially automated in some libraries, the overall trend showcases a high degree of technological advancement, enhancing efficiency and management across the libraries.

Library Management Software Utilized by Libraries

The majority of IISER institutes (six out of seven) have adopted Koha as their library management software. Only IISER PUN stands out as the exception, utilizing

LIBSYS as its library management software.

Factors Selected for Current Library Management Software

It was found that library management software received overwhelmingly positive feedback from the librarians, with 100% expressing strong agreement regarding its excellence in supporting standard cataloguing, cost-effectiveness, and provision of excellent technical support.

Implementation of RFID in IISERs

It was found that among all the surveyed institutes (100%) have fully implemented RFID technology, indicating a unanimous and widespread adoption of RFID in these libraries.

RFID equipment in IISERs

IISER campuses display a consistent adoption of modern library technologies, implementing six types of equipment uniformly, such as Book Drops, Check in/Out Station, Self-check In/Out, Security/Sensor Gate, Staff and Conversion Station, and Shelf Scanner/Management. This standardized approach suggests a commitment to enhanced efficiency in book handling and improved security, reflecting a user-friendly environment across all IISERs.

Summary of the Findings from the Questionnaire on IISER Library Users

Response Rates of Users of IISER Libraries

The study showed that out of the 500 questionnaires distributed, 361 were received, yielding an impressive overall response rate of 72.20%. Notably, IISER Bhopal stood out with the highest response rate of 82.35%, garnering 70 responses. In contrast, IISER Tirupati recorded the lowest response rate at 29.41%, with 25 responses. This

variation highlights differential engagement levels among the surveyed IISERs.

Gender Wise Responses

Out of the total 361 responses, 47.37% were from male participants (171 respondents), and 52.63% were from female participants (190 respondents). It was found that the gender ratio of the responses received from IISERs shows a higher percentage of female respondents as compared to male respondents.

Course Wise Distributions of Users

The overall enrollment distribution reveals that 70.91% of students are pursuing PG programs, while 29.09% are enrolled in Ph.D. programs. When considering PG programs, IISER BHO stands out with the highest response rate, securing 14.40% (52 out of 70). Conversely, the lowest response rate for PG programs is observed at IISER TPTY, with 4.71% (17 out of 25). In the context of Ph.D. programs, IISER MTVM leads with the highest response rate, accounting for 5.26% (19 out of 56), while IISER TPTY records the lowest response rate at 2.22% (8 out of 25).

Age Wise Distribution of Respondents

It was found that the largest proportion of respondents falls within the age range of 24 to 27 years, comprising 44.60% of the total respondents (161 individuals), while age group of more than 35 years comprises no respondents. This indicates that a significant portion of the participants in the study are in their mid to late twenties.

Frequency of Library Visit

It was noted that the majority of users, 141 (39.06%) visit the library daily, while 79 (21.88%) users visit the library twice a week, and 60 (16.62%) visit the library only when needed. Conversely, only 10 (2.77%) users visit the library rarely. Majority of

the respondents visit the library on a daily basis. This indicates that a significant proportion of the surveyed students have a frequent library usage pattern, suggesting that the library is an essential and integral part of their academic routine.

Preferred Library Visiting Time

The study showed that these findings highlight a clear that the majority of respondents, 123 users, or 34.07%, favour going to the library between 2-4 PM, and a significant number also opt for visits after 4 PM. In contrast, a smaller group of users prefer visiting the library during the late morning hours (11-12 PM). Understanding these preferred time slots can assist in optimizing library services and resource availability to align with user preferences.

User Awareness of Library Resources

It was found that the majority of respondents, constituting 98.61% of the total population, are not only aware of the available resources but also actively utilize them, indicating a significant level of awareness and engagement. A small percentage approximately 1.84% of respondents, are aware of the resources but choose not to use them, while an even smaller fraction, only 0.28%, expressed a complete lack of awareness about the resources.

Extent of Awareness of Library Resources

It was found that in the realm of library resources, respondents showcase varying levels of awareness. Printed books garner significant attention, with 56.79% expressing extreme awareness and an additional 32.96% demonstrating very extreme awareness. E-book users exhibit a notably high level of awareness, with 60.39% being extremely aware and an additional 25.76% expressing very extreme awareness. Print journals, on the other hand, elicit a balanced response, with 44.6% being extremely

aware, while only a negligible 0.83% indicates no awareness. E-journals command considerable awareness, with 55.40% expressing extreme awareness. Newspapers and magazines enjoy exceptionally high awareness, as an overwhelming 80.61% of respondents express extreme awareness. Online full-text databases and bibliographic databases both exhibit a relatively balanced awareness, with varying degrees of very extreme and extreme awareness. Theses and dissertations garner balanced awareness, with 45.98% expressing extreme awareness and 11.63% indicating moderate awareness. Institutional and digital repositories evoke mixed awareness, as 48.48% report extreme awareness and 11.91% indicate moderate awareness. Conference papers and seminar proceedings show well-distributed awareness, with 48.75% expressing very extreme awareness and 40.17% reporting extreme awareness. Reference sources exhibit a balanced distribution of awareness, with 47.37% expressing very extreme awareness and 8.86% indicating moderate awareness. Awareness of audio-visual materials is relatively even, with 48.19% reporting extreme awareness and 11.63% indicating moderate awareness.

Frequency of Use of Library Resources

The study showed that the majority of respondents indicated a high frequency of use for printed books (41.55%), while e-books were reported to be used sometimes (36.84%). Print journals were utilized sometimes by the majority (57.62%), whereas e-journals were always accessed by the majority (54.57%). Newspapers, magazines, and online full-text databases were all marked as always used by the majority (47.09% and 59.28%, respectively). Bibliographic databases were reported to always be used by 43.21% of respondents. Theses and dissertations were sometimes accessed by the majority (62.33%), while institutional and digital repositories were very often used by 43.49% of respondents. Conference papers and seminar proceedings were

sometimes accessed by the majority (72.02%), and reference sources were reported to be sometimes used (30.19%). Audio-visual materials had a majority response of very often usage at (31.58%).

Purpose of Library Visit

The findings show that 85.87% (310 respondents) use the central library to search online databases and bibliographic databases online. Also, 85.32% (308 respondents) go to the library for research or project work, and 85.04% (307 respondents) visit to find information about specific subjects. Moreover, 81.44% (294 respondents) visit the library to borrow and return books. Only 30.75% (111 respondents) visit the library to get dissertations and theses, especially in the central libraries of IISERs.

Locating Books and Reading Materials

It was found that the Online Public Access Catalogue (OPAC) stands out as the most frequently used source, being employed by a substantial 56.51% of respondents. After OPAC, perusing library shelves is also a popular method, constituting 53.56% of total responses. Notably, 38.5% of users turn to library staff assistance as a significant resource for help. Furthermore, friends or classmates contribute to information retrieval, with 24.93% of respondents relying on their assistance. Consulting the library catalog is employed by 8.86% of users, indicating a distinct yet noteworthy approach to accessing information within the library setting.

Information Need

The data indicates that the primary approach chosen by the majority of respondents for gathering information is via university/library websites, with 245 individuals (68.87%) selecting this method. A smaller proportion of respondents, 98 (27.15%) and 55 (15.24%) respectively, opted for obtaining information through alternative

library and information centers, as well as engagement in workshops, conferences, and seminars.

Different Types of Information Sources Required to Meet Your Needs

These major findings highlight the varying degrees of utilization for different types of resources, with online full-text databases being the most consistently accessed, followed by E-Journals and print journals. Newspapers/magazines show a more diverse pattern of utilization, with a substantial number of respondents accessing them sometimes.

Preferred Mode of Obtaining Resources

The major finding from this data is the prevailing inclination towards digital resources, as reflected in the significant preference for E-Resources, which accounts for 53.46% of the total. This indicates a notable shift towards online and electronic materials, emphasizing the growing importance of digital resources in academic settings.

Preferred Methods of Obtaining Library Resources

The majority of respondents preferred both (158, 43.77%) for reading and studying books and other course materials, both (221, 61.22%) for updating subject knowledge, and both (176, 52.07%) for research work. The majority of respondents prefer to use electronic resources (231, 63.99%) for preparing presentations, workshops, or papers. Respondents prefer to utilize electronic resources (279, 77.29%) for current journals. On the other hand, 257 respondents (71.19%) prefer to use print materials while accessing back volume of journals. Respondents prefer to utilize print materials (160, 44.32%) for reference books and magazines.

Awareness on Open Access Resources

The major finding of the study reveals that within IISER institutes, there is substantial awareness and utilization of open-access resources, as confirmed by 91.69% of respondents. A minimal proportion, 8.31%, is aware but not actively using these resources, and notably, there are no cases of respondents lacking awareness. This highlights a strong positive correlation between awareness and effective utilization of open-access resources among the surveyed individuals within IISER institutes.

Level of Awareness on Open Access Resources

The findings indicate a substantial 41.00% of respondents are highly aware of open-access journals, demonstrating widespread recognition of the importance of freely accessible scholarly content. Similarly, institutional websites are prominent, with 32.41% being extremely aware and 19.11% having moderate awareness. This emphasizes the vital role institutional platforms play in disseminating information, engaging a significant portion of the surveyed population.

In contrast, personal blogs and websites are also noteworthy, capturing significant attention with 41.00% expressing very or extremely high awareness. This underscores the growing influence of individual online platforms in the academic landscape. Furthermore, search engines command commendable awareness, with 44.32% informed about their utility in accessing information, underscoring their pervasive use in academic research and their importance in the digital information landscape.

Frequency of Use of Open Access Resources

It was found that a substantial majority of respondents, comprising 46.26%, consistently prefer using open-access journals. This notable preference indicates a strong inclination towards freely accessible scholarly content, underscoring

recognition of the value and accessibility offered by open-access publications. Additionally, in the realm of academic information and resources, it was revealed that institutional websites play a pivotal role. A significant majority of respondents (36.84%) very often visit institutional websites, highlighting a prevalent reliance on these sources.

Problems Faced While Accessing Library Resources

It was found that the respondents identified various challenges in utilizing library resources. Approximately 6.37% expressed concerns about inadequate resources, underscoring the need for a more extensive collection of books, journals, and study materials. A substantial 41.55% faced difficulties in finding relevant documents, indicating potential issues in information retrieval. Around 5.54% reported a lack of support from library staff, pointing to potential gaps in assistance services. A significant 28.81% indicated a knowledge gap in using the library catalog (OPAC), suggesting a need for user education or catalog usability improvements. About 6.37% faced connectivity issues, emphasizing the need for internet infrastructure enhancements. Additionally, 6.09% encountered challenges due to a shortage of computers in the library, highlighting the necessity for expanded computing facilities. Lastly, 5.26% reported miscellaneous issues, necessitating further investigation for comprehensive resolution.

Adequacy of library Resources

In assessing the adequacy of library resources, a notable 55.68% of respondents strongly agree that online full-text databases meet their needs. This marks the highest level of consensus among all categories evaluated.

User Satisfaction of Library Resources

The major finding from the data in Table 4.37 and Figure 4.34 indicates a high level of satisfaction among respondents with various library resources. Notably, the majority (37.28%) expressed being very satisfied overall, with only a minimal percentage (1.78%) reporting not being satisfied at all. Specific resources such as e-books (36.39%), e-journals (34.32%), newspapers and magazines (37.28%), and online full-text databases (32.54%) received majority satisfaction. The least satisfaction (6.80%) was observed in the not at all satisfied category, highlighting a generally positive sentiment towards library resources.

Suggestions

- i. Investigate ways to address the shortage of library staff to ensure efficient and seamless library operations. Analyze the workload distribution and assess the need for additional staff members to better cater to the academic and research requirements of the institute.
- ii. Explore the benefits of involving students in the library Committee to provide insights into their specific needs and preferences. Evaluate the impact of student representation on decision-making processes and the enhancement of library services.
- iii. Conduct a thorough examination of technical support services provided by the library to identify areas for improvement. Assess the effectiveness of technical assistance in addressing user queries, resolving issues, and improving user satisfaction.
- iv. Investigate strategies to improve users' knowledge and skills in using the library OPAC (Online Public Access Catalog). Implement training programs

and user guides to enhance user proficiency in navigating the catalog effectively.

- v. Identify and address the difficulties faced by students in finding relevant materials in the library. Investigate the reasons behind these challenges, such as the cataloging system, resource organization, and user interfaces, to optimize resource discovery.
- vi. Propose technological enhancements, such as increasing the number of computers available for student use and ensuring high-speed internet connectivity, to facilitate easy access to digital resources and online databases.
- vii. Implement a systematic user feedback mechanism to gather insights on the library experience and resource usage. Use this feedback to make data-driven decisions for continuous improvement of library services.

Conclusion

This study focused on the need awareness and use of library resources among the users of Indian Institute of Science Education and Research (IISER). The findings from both the librarian's questionnaire and the user's questionnaire provided valuable insights into various aspects of the library's operations and user experiences. It was observed that IISER libraries have recognized the importance of having collection development policies, established Library Committees, and embraced library automation and modern technologies like RFID. While users exhibited high awareness of digital resources, challenges were identified in resource retrieval and user proficiency with the library OPAC. Additionally, the study highlighted the significance of involving students in the decision-making process and the need for enhanced technical support services. Overall, the research suggests opportunities for

further exploration in factors influencing resource awareness, resource use patterns, the impact of library workforce composition, and digital resource accessibility. By addressing these areas and implementing the suggested improvements, IISER libraries can better cater to the information needs of their users and further enhance the library experience for the academic and research community.

Areas for Further Research

- Digital Transformation in Academic Libraries: Assessing the Impact of RFID Technology on User Experience in IISERs
- Beyond the Shelves: Exploring the Dynamics of Online Resource Utilization and Preferences among IISER Library Users
- Assessing the Effectiveness of Library Automation Technologies in Enhancing Resource Accessibility
- The Role of RFID Technology in Modern Library Environments: A Comparative Analysis across IISERs