



Navigating Information Discovery Tools - A Holistic Analysis of OPAC

Tejeshwari M R, Meeramani N, Sreelakshmi K S
The Librarian
Jain (Deemed-to-be University)
Banglore, India
{tejeshwari.m.r@gmail.com}
{n.meeramani@jainuniversity.ac.in}
{sreelakshmik46@gmail.com}

ABSTRACT

This paper focused on the student's awareness of the online public access catalogue (OPAC) services and its usage impact on the students in the JAIN (Deemed-to-be University). For this survey, 160 undergraduate and postgraduate students were comprised of a well-structured questionnaire method to collect the data. The data analysis revealed the awareness of usage among the OPAC, frequency of usage, type of search with OPAC, and the main challenge faced by the user limited search options.

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1. Introduction

Libraries are information centers in the digital age, and how well they function depends on how easily accessible their materials are. Online Public Access Catalogues (OPACs) and library discovery tools are two main ways to obtain these resources. These technologies make it easier for users to browse large collections and quickly explore them. The survey, which examined the efficiency, usability, and difficulties of JAIN's (Deemed-to-be University) library finding tools, is presented in this article. In this case study, we aim to show how library technology is developing and how it affects academic institutions.

OPAC is simply a digital portal or interface that enables users to search and access library resources, such as books, journals, theses, project materials, and more. Users are usually library patrons.

Key Features

Accessibility: OPACs on various displays, including desktop PCs, laptops, tablets, and smartphones. This ensures that customers can access and use li-

brary resources from anywhere at any time as long as they have an internet connection. **Boolean operators/Advanced features:** OPACs typically provide search features akin to search engines, enabling users to look for materials based on keywords, titles, authors, subjects, or more parameters. To further refine search results, certain advanced OPACs also allow Boolean operators and filters. **Resource discovery:** The library's catalogue, which comprises bibliographic details and metadata on each item in the collection, can be accessed via OPACs. This data assists patrons in locating and identifying particular resources within the library's collection. **Advanced OPAC system/Access to digital resources:** These could include the ability to renew borrowed materials, make customized reading lists or bookmarks, place requests for materials, access digital resources like e-books or online databases, and more, depending on the OPAC system. **User Accounts:** Many OPACs let users set up profiles or accounts, which can provide customized features like preserved search history, alerts for upcoming due dates or holds, and suggestions based on previous usage.

2. About JAIN (Deemed to be university)

JAIN (Deemed-to-be University), an intellectual destination that attracts inspired students from over 38 nations to India's Silicon Valley - Bengaluru, was founded to provide quality education and foster entrepreneurial development. A culturally diverse campus with students from several states has contributed to the University's rich academic legacy. Over the years, the University has made purposeful and concerted efforts to capitalize on its strengths and consolidate its accomplishments. TUV Nord has certified JAIN (Deemed-to-be University) as ISO 9001:2015 for quality management, and the university is a member of the Association of Universities of Asia and the Pacific. KSURF ICARE Ratings has also rated the university five stars in the Young University category in Karnataka. JAIN (Deemed to be University) has been graded.

About Learning Resource Centre



JAIN (Deemed-to-be University) OPAC Page

3. Literature Review

Mahadevan, B., and Ramesh, G. (2023) study evaluates OPAC utilization, user satisfaction, and native concerns among South Indian pharmacy faculty members. Data from 1553 people was acquired using questionnaires, online surveys, and participant observation. The find

ings revealed that OPAC needs additional development, limited facilities, and user ignorance. Early OPAC issues were found, and solutions include continued training, technological developments, and native language search possibilities. The study recommends user-friendly OPACs, considering the approaches and behaviors of competent users, and advocates policy implementation.

Gohain, Anurag Borpatra, and Mishra, Devanand (2023) examine how OPACs provide a user-friendly interface for searching library materials, allowing users to search by author, title, subject, or keyword. They also alert users about resource availability and location, allowing them to request or reserve items. OPAC data enables librarians to improve resource allocation and spot trends. According to a user study conducted at Dibrugarh University's LNB Library, library orientation and information literacy workshops increase users' credibility in OPAC searches by 55.99%.

Mustapha, Abdulqawiyyu, et al. (2023) demonstrate that Bayero University Kano library patrons need to be made aware of the availability of OPAC, resulting in inadequate use of this efficient retrieval tool. This lack of understanding and usage leads to neutrality regarding OPAC and its services. The report proposes applying recommendations to maximize advantages and enhance OPAC usage in the library.

Mugheri, Shahzeb, et al. (2022) the study investigate the status and online services of web OPACs in public and private university libraries in Lahore, highlighting user hurdles and redundancy. The study's goal is to increase the effectiveness of web OPACs through the use of a quantitative survey methodology.

Pradhan, Dibya Kishor, and Maharana, Bulu (2022) this research evaluate the use of faceted navigation in library online catalogues (OPACs) to improve information retrieval. It explores the system used to create the online catalogue and its current status regarding the faceted knowledge organization method. The survey discovered that 90% of OPACs are faceted, with 50% preferring Koha ILS. The paper also looks at the sequencing and kinds of OPAC facets, as well as how the facet theory is used.

This study, therefore, focused on OPAC as a discovery tool. Using a survey as the primary research technique, this study examines how JAIN (Deemed-to-be University) undergraduate and postgraduate students use the OPAC system. This survey investigated commerce, computer science, IT, and humanities students.

4. Objectives

The specific object of the study

- Evaluate the effectiveness of the current OPAC system at JAIN (Deemed-to-be University) in facilitating access to library resources.
- Assess user satisfaction and perceptions regarding the usability and functionality of the OPAC.
- Identify challenges and areas for improvement in the OPAC system to better serve the information needs of students, faculty, and researchers at the university.
- Explore the role of OPAC in supporting teaching, learning, and research activities at JAIN (Deemed-to-be University).

5. Scope and Limitations

This study is limited to undergraduate and postgraduate students of commerce, computer science, and IT, as well as the humanities and social sciences of JAIN (Deemed-to-be University).

6. Research Methodology

In order to achieve the stated objectives, questionnaires were distributed through Google Forms for collecting data from undergraduate and postgraduate students in the following departments: commerce, computer science, the humanities, and social sciences. The questionnaires were randomly sent to the users visiting the Learning Resource Centre. 200 questionnaires were given out randomly to students in the commerce, computer science, humanities, and social science streams for this study, and 160 responses were obtained. This study employed a quantitative descriptive survey method and automated numerical calculation to gather data.

7. Analysis and Results

The data analysis is an analysis of the results received from the questionnaires. This data is collected from postgraduates and graduates from the Commerce, Computer Science, Humanities, and Social Science streams at JAIN (Deemed-to-be University), Bangalore, on various aspects of the OPAC: awareness, usage, satisfaction, and perception. The data is presented in the following words with the help of a table and graphs for a clear understanding of the subject.

7.1. Distribution of the Questionnaire

Postgraduate and undergraduate students at the JAIN (Deemed-to-be University) were given 200 questionnaires, and 160 of them received the completed questionnaires, with a response rate of 80 Percent.

7.2. Demographic and academic qualifications of the students

Demography	Frequency	Percentage
Gender		
Female	35	21.8%
Male	125	78.2%
Total	160	100%
Program of the study		
Undergraduate	110	68.75%
Postgraduates	50	31.25%
Total	160	100%

Table 1. Demographic and academic qualifications

Table 1 depicts the category-wise respondents; out of 200, 160 (80 %) are males, 125(78.2 %) are females, and the remaining 35 (21.8%) are females. Most students were undergraduates, 110 (68.75%), followed by postgraduates, 50(31.25%).

7.3. Services provided by the Learning Resource Centre, JAIN (Deemed-to-be University)

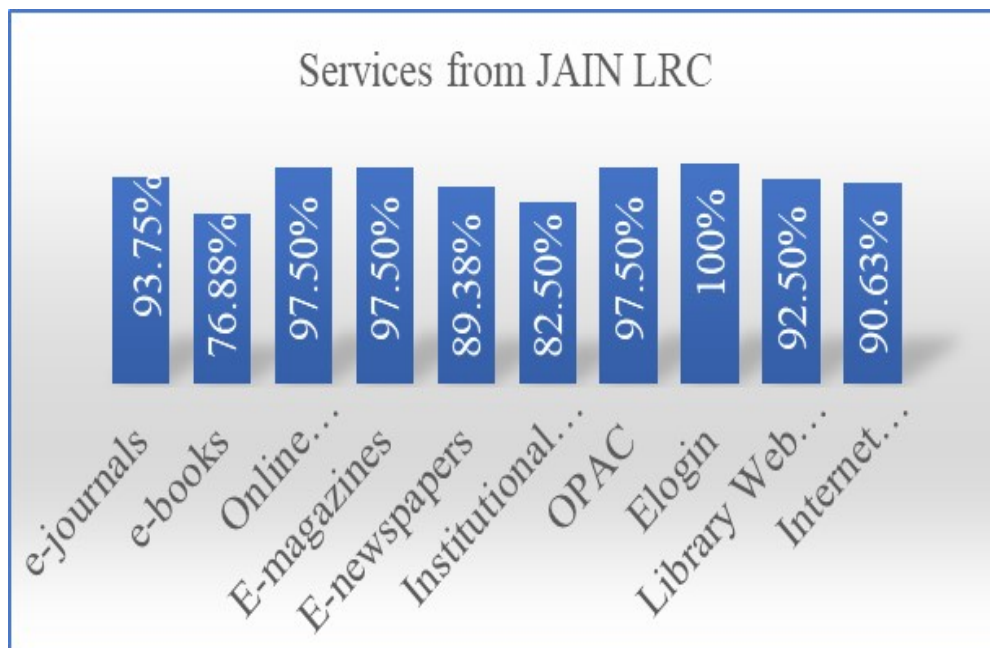


Figure 1. Services from the JAIN Learning Resource Centre

Figure 1 shows students using various services, including e-resources, e-books, online data-bases, e-magazines, e-newspapers, institutional repositories, OPAC, login, library web pages, and internet resources services. In this study, most notable among the login 100% of the respondents claimed to use this: E-journals by 93.75% of respondents, e-books were mentioned by 76.88% of respondents, online databases by 97.50%, e-magazines by 97.50, e-newspapers by 89.38%, Institutional repository by 82.38%, OPAC by 97.50%, Library Web Page by 92.50%, Internet resources by 90.63% respectively.

7.4. Sources through OPAC service are known and frequently using the OPAC system

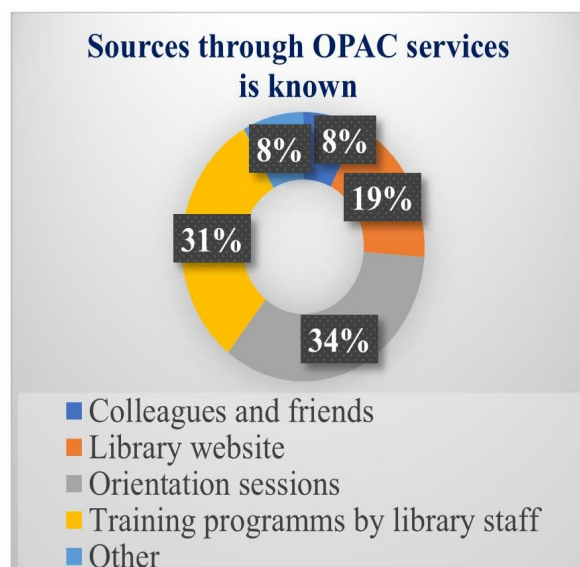


Figure 2. Sources through OPAC service is known

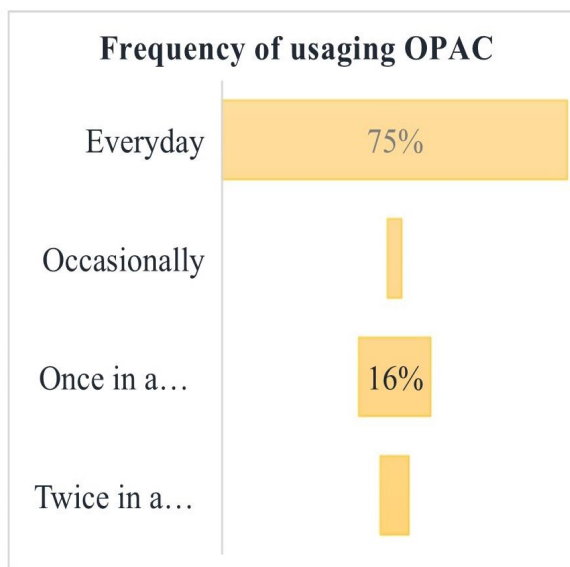


Figure 3. Frequently of using the OPAC system

Figure 2 shows that the question asked respondents to explain how they learned about the OPAC. The respondents described different ways in which they learned about the OPAC. As shown in Figure 2, 34% of the respondents have acquired from an orientation programme, followed by 31% from training sessions through library staff. 19% of the respondents said that they learned about the OPAC through the library's detailed video on the OPAC search through the website. 8% of the respondents said they came to know from their colleagues/friends, and very few respondents, to be exact, 8% are found through the notice board and others. It represents that the library provides awareness, orientation, and training programs on its resources and services to its users.

Figure 3 shows that 75% of respondents use OPAC daily, 16% use it once a week, 6% use it twice a week, and 3% use it occasionally. This outcome demonstrates that OPAC access is necessary for students to find information about their study area. As a result, the majority of students regularly use the OPAC.

7.5. OPAC's Most Popular Resource Type Searches and Information Filter Options

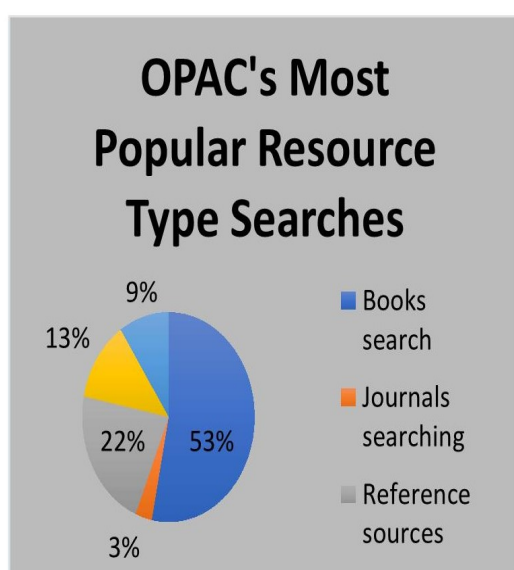


Figure 4. OPAC's Most Popular Resource Type Searches

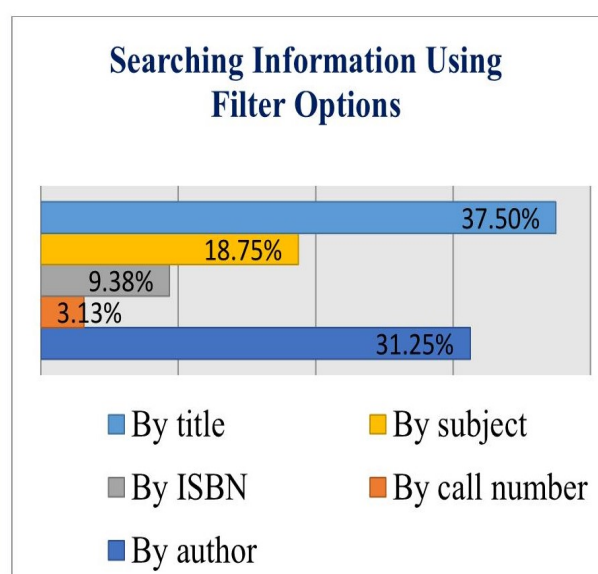


Figure 5. Searching Information Using Filter Options

The findings reveal from Figure 4 that 53% of the respondents used OPAC to search books related to their subjects, followed by reference sources (22%), such as reference books, dictionaries, previous year question papers, and other resources. 13% of the respondents indicated that they used it to search for e-resources linked through the OPAC, and 9% said that they used it for their thesis and dissertations for their project work. Three per cent of them stated that they used it for journals. At the same time, this study shows that OPAC used it to search for the information required for all purposes, for getting the right book, for assignments reference resources, and for preparing the project report, as well as focusing on multidisciplinary topics.

According to Figure 5, 37.50% of respondents were searching the information title-wise, 31.25% opined that they were using the author search option for gathering the information, and 18% got the information with the subject-wise. Similarly, with ISBN, 9.38% of the respondents are using and 3.13% are using call numbers to search the information.

7.6. OPAC system usefulness in locating relevant resources and on average time spent on searching materials

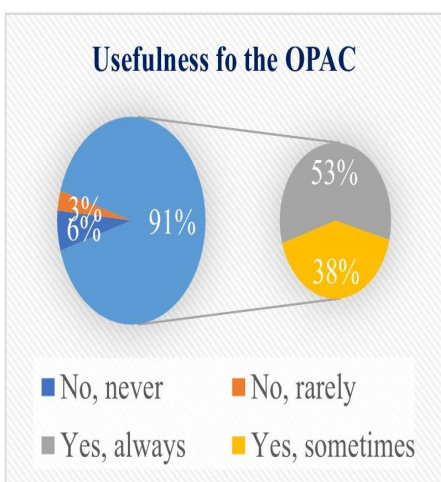


Figure 6. OPAC system usefulness in locating relevant resources

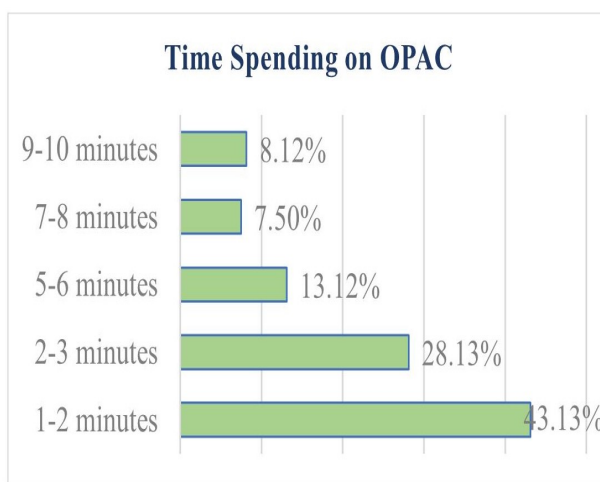


Figure 7. On average time spent on searching materials in OPAC

In this Figure 6 study, 91% of the respondents claimed that OPAC is useful. 53% said that OPAC is always useful, and 38% said it's useful sometimes. 6% of the respondents said no, never, and 3% said no, rarely.

Figure 7 shows the time spent while using the OPAC. It was seen that most of the respondents, 43.13 %, spent 1-2 minutes on OPAC to find the information. For that, 28.13% of the respondents are using 2-3 minutes, 13.12% of the respondents are using 5-6 minutes, 7.50% of the respondents are using 7-8 minutes, and 8.12% of respondents are using 9-10 minutes to find the information related to their requirements. This shows that information finding has been faster while using the OPAC, which quickly finds the information in 1-2 minutes.

7.7. Accessibility and User Friendliness of the OPAC

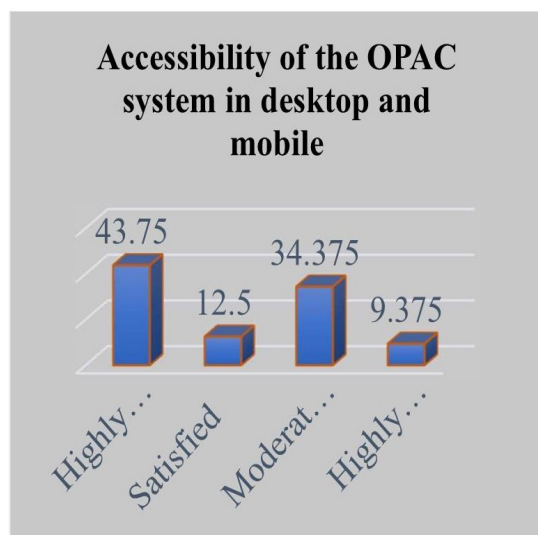


Figure 8. Accessibility of the OPAC System in desktop and mobile

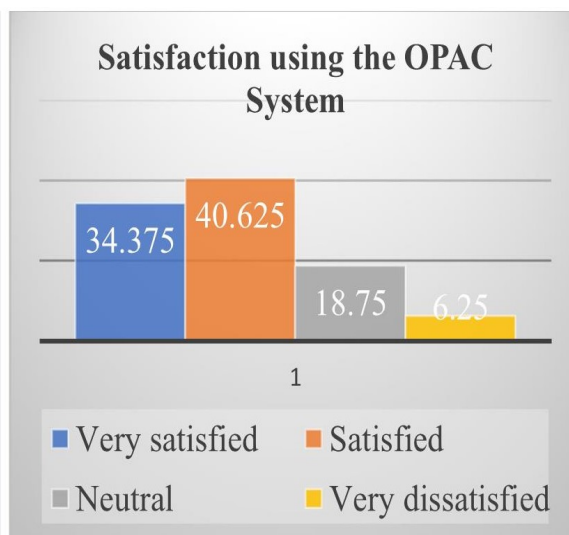


Figure 9. Satisfaction using the OPAC system

According to the data in Figure 8, 43.75% of respondents were highly satisfied with the accessibility of the OPAC system, 34.75% opined that they were satisfied, 12.50% of the respondents neutrally expressed their views about the accessibility of the OPAC system, and 9.37% of respondents said that they were highly dissatisfied with the accessibility of the OPAC system.

Figure 9 shows that 34.75% of them opined that they were highly satisfied using the OPAC, 40.625 respondents were satisfied, 18.75% were neutral on OPAC systems, and 6.25% were very dissatisfied with the OPAC system.

7.8. Challenges faced while using OPAC

Challenges or limitations faced while using OPAC	Frequency	Respondents (%)
Complexity of search interface	5	3.125 %
Difficulty in filtering information	30	18.75%
Lack of assistance while using OPAC	15	9.375%
Lack of skills and knowledge about OPAC	19	11.875%
Limited search options	51	31.875%
Technical issues	40	25%

Table 2. Challenges faced while using OPAC

The respondents were asked to provide details regarding the challenges they faced while using the OPAC services. Major challenges faced by respondents while using are shown in Table 2. It is clear from the analysis that the most common challenges seen are limited search options (31.875%). The second biggest hurdle while using is technical issues (25%). Followed by other major challenges respondents faced due to difficulty in filtering information (18.75%) of the study participants also indicated other problems such as Lack of skills and knowledge about OPAC (11.875%), Lack of assistance while using OPAC (9.735%), and Complexity of search interface (3.125%). Most respondents pointed out multiple challenges like limited search options, technical issues, and difficulty in filtering information.

8. Discussion of Findings

The research was conducted through a student survey among students from various departments at JAIN (deemed-to-be university) in Bangalore, Karnataka state, India. Out of 160 students, there were more male students, 125(78.2%), than female students, 35(21.8%). The study revealed that most of the JAIN students are aware of OPAC services' availability. Most students have searched for information resources, reference sources, and books for their studies. The study observed that 75% of students used OPAC daily to get books and other resources to complete class assignments, research, follow project work, and keep themselves updated in their field. Despite being aware of the OPAC services, some students experienced trouble locating material due to limited search options, technical issues, difficulty filtering information through OPAC, etc. The overall observation of the tabulated data reveals that most students expressed their views that OPAC service is very convenient for searching for information and resources for self-learning, improves information searching methods and techniques, and improves reading habits. The study highlights the importance of OPAC in self-learning and academic success.

9. Conclusion

Online Public Access Catalogue (OPAC) playing a crucial role in the services provided by the libraries. This study explored and analysed how the students have been using the OPAC in different ways, such as awareness programs and video guides provided on the library webpage, how frequently they are using it, and how they benefit from it. The study recommends increasing the resources and awareness levels. This study also recommends organising an informative and effective guidance training program for library users. Finally, it shows that OPAC services impact students' perceptions and educational performances with the resources.

References

- [1] Dominic, J. (2024). A review of information access through OPAC in university libraries. *Science*, 10(2).
- [2] Gohain, A. B., Mishra, D. (2023). Usage of online public access catalogue (OPAC) as a resource discovery tool: A study in LNB library, Dibrugarh University. *Era International Journal of Research and Development (IJRD)*, 8(8), 123-128.
- [3] Kerketta, S., Mukhopadhyay, M. (2023). Enhancing OPAC through geospatial data: Stackmaps and text visualization in Koha. *Journal of Information and Knowledge*, 105-112.
- [4] Ndumbaro, F. (2023). Remote OPAC users' search query reformulation patterns: A transaction log analysis. *Online Information Review*, 47(1), 162-176.
- [5] Muhammad, I. (2023). Awareness and perception of library users towards the use of online public access catalogue (OPAC) in Bayero University, Kano, library.
- [6] Mahadevan, B., Ramesh, G. (2023). An investigation and analysis of online public access catalogues (OPAC) among the faculty members of a pharmacy college in South India. *International Journal of Library & Information Science (IJLIS)*, 12(3).
- [7] Pradhan, D. K., Maharana, B. (2022). Faceted knowledge organization approach in online public access catalogue (OPAC) for searching and navigation: A case study.
- [8] Adeyemi, I. O., Omopupa, K. T. (2020). Moving from OPAC to discovery systems: Nigerian librarians' perceived knowledge and readiness. *Cataloguing & Classification Quarterly*, 58(2), 149-168.
- [9] Mugheri, S., Rahoo, L. A., Asif, M., Sahito, Z. H. (2022). Web OPAC services and barriers users face while searching for information in public and private sector university libraries in Pakistan. *Library Philosophy and Practice (e-journal)*, 7037.
- [10] Attahir, I. S., Elijah, J. M. (2021). Awareness, access and use of online public access catalogue (OPAC) by undergraduate students in federal universities in North East Nigeria. *Information Technologist*, 18(2).
- [11] Yang, S. Q., Wagner, K. (2010). Evaluating and comparing discovery tools: How close are we towards next generation catalog? *Library Hi Tech*, 28(4), 690-709.
- [12] Caplan, P. (2012). On discovery tools, OPACs and the motion of library language. *Library Hi Tech*, 30(1), 108-115.
- [13] Meeramani, N., Bhawani, K., Tejeshwari, M. R. (2022). Use and awareness of e-learning platforms among students of higher education institutions in India: A case study. In *Proceedings of the International Conference on Emerging Digital Library Platforms Shaping Digital Transformation and National Data Exchange* (pp. 240-252).
- [14] Meeramani, N., Tejeshwari, M. R., Bhavani, K. (2023). User perceptions towards the use

of digital resources in university libraries: A study. In *Smart Library Emerging Trends and Technologies* (pp. 297-308).

[15] Tejeshwari, M. R., D. M. (2024). Digital library services and its impact. *Journal of Emerging Technologies and Innovative Research (JETIR)*, a372-a380.

[16] <https://bit.ly/4ers8Xj>. Accessed on 19.06.2024

[17] Gohain, A. B., Mishra, D. (2023). Usage of online public access catalogue (OPAC) as a resource discovery tool: A study in LNB library, Dibrugarh University. *EPRA International Journal of Research and Development (IJRD)*, 8(8), 123-128.