

Exploring Awareness and Usage of VuFind Open-Source Discovery Tool: A Survey Within Library Professionals

Asmita Patil*, Amit S. Tankar**

Abstract

This study aims to assess the awareness and use of discovery tools among library practitioners in the Pune section of the state of Maharashtra. The research employed the survey and structured questionnaire techniques to collect data. It has been found that although library professionals in Pune, Maharashtra, are fairly conversant with traditional library software terminology, they are not conversant with newer technologies such as federated searching, discovery tools, next-generation catalogues, and web-scale discovery systems. The paper indicates that greater awareness and knowledge of the VuFind Discovery Tool are required among library professionals. Although more than 63% of the surveyed are conversant with the subject, most are unaware of new developments such as discovery tools, federated search, facet search, web-scale discovery, and next-generation catalogues.

Keywords: Discovery Tool, Federated Search, Facet Search, Next-Generation Catalogues, VuFind

author. VuFind offers a wide range of facets, including format, call number, topic, author, language, genre, era, and region. Using a discovery tool, one does not have to choose a particular search platform to start one's search. A uniform interface will save time, and this is a priority for all users. Finding multiple sources separately may be time-consuming and inefficient. Discovery tools are used to solve this problem by simplifying access to relevant information in a single location. One such tool is VuFind, which aims to streamline the search process and make the user experience more efficient and user-friendly. Not only does the VuFind discovery portal enable one to search for a range of resources, including subscribed content, in-house and open-access resources held by libraries, but it also offers other effective features that provide value-added services through a unified interface and capabilities to integrate with other library software and tools for library collections.

Introduction

The VuFind discovery tool is an advanced library catalog that will replace the old OPAC. It provides a combined search platform through which one can find and retrieve all materials in the library at a single point of access. The ability to use narrowing facets that enable users to categorize search results along many dimensions is also a strong feature for its users. Facets, as defined by Antelman et al. (2006), are the categories through which users navigate search results across various dimensions. The typical aspects are Library of Congress (LC) classification, subject, time period, language, and

Review of Literature

Discovery tools like VuFind work just like any other web-based resource discovery tool, both in commercial and open-source environments. It can serve library resources from multiple sources through a single-window search interface (Saha, 2018). The VuFind tool offers bibliographic information within a single search index, helping save the multiple steps required in the traditional OPAC, and library patrons can easily comprehend the bibliography of comparable books in a brief time. The search results demonstrate that this tool provides greater opportunities for library patrons in a systematic,

* Assistant Librarian, Sri Balaji University, Pune, Maharashtra, India. Email: asmita.patil@bimhrdpune.edu.in

** Librarian, Shri Dr. R G Rathod Arts & Science College, Murtizapur, Akola, Maharashtra, India.
Email: amittankar@rediffmail.com

exhaustive, and expeditious manner (Lambodara & Srivastava, 2016). Discovery tools present library professionals with the challenge of not only thinking about access but also developing optimal research pathways for library users; they enable users to conduct more relevant searches for their needs (Condit & others, 2012). This position is supported by Breeding (2015), which notes that discovery layers provide a user interface with advanced search and retrieval features, such as relevance ranking, faceted navigation, and interoperability with link resolvers. On the same note, Roy et al. (2022) emphasize that this integrated model offers users new, innovative services that deliver fast, convenient, and comprehensive search results through a single access point. In the study, Jennifer (2011) identified Vufind as a more useful tool with the best layout, compared with Amazon and Web Voyage, based on usability testing. Breeding (2010) tested the available systems and noted that they are not merely next-generation catalogs. He emphasized equal access to content in any form, which we now take for granted. One of the virtues he identifies as relevant to discovery systems is the integration of the full text of journal articles and books with citation, bibliographic, and authority records, resulting in a powerful search experience rather than a small set of access points selected by catalogers. Breeding goes on to indicate that Web-scale discovery platforms will blur most of the inhibitions and regulations we currently place on library users. No longer will a user need to be told that the library catalog contains records of books and journal titles but not journal articles; instead, they can start with the concept, author, or title of interest and immediately see results in the many formats the library collection provides.

Scope and Research Methodology

The research paper examines the awareness and use of the VuFind Discovery Tool among the library fraternity in Pune, Maharashtra. The proposed study will also help assess the effectiveness of VuFind as a discovery platform in improving information retrieval processes, as well as the advantages, obstacles, and difficulties of its adoption and use by library staff. The study employed a survey design and a structured survey questionnaire

to gather data. The researcher has obtained information on 100 respondents who are currently serving in various designations in their respective organizations, like librarian, deputy librarian, assistant librarian, library assistant, scientific officer, etc. only 97% of the respondents were working in academic libraries, and the remaining 3 were in public libraries and school libraries within Pune city. The authors discovered that library workers in Pune, Maharashtra, are conversant with classic software terminologies, but lack knowledge of new technologies such as federated searching, discovery tools, next-generation catalogs, and web-wide discovery services. The research indicates a need for greater awareness and understanding of the VuFind Discovery Tool within the library community. Even though over 63% of respondents are familiar, many are not familiar with new concepts such as discovery tools, federated search, facet search, web-scale discovery, and next-generation catalogs.

Objectives

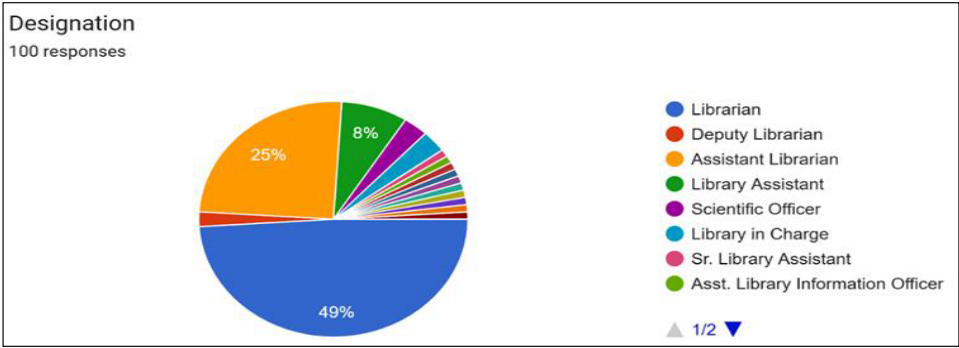
This research aims to achieve the following objectives:

- To assess the awareness and usage of discovery tools among library professionals.
- To evaluate the effectiveness of VuFind as a discovery tool in enhancing the information retrieval process.
- To identify the barriers and challenges faced by library staff when using VuFind as a discovery tool.

Data Analysis

Type of Participants

The designations of 100 library professionals who participated in the research are shown in the chart below. According to the data gathered, 49% of the respondents were Librarians, 2% were Deputy Librarians, 25% were Assistant Librarians, and 8% were Library Assistants. A smaller share of respondents held the positions of Scientific Officer, Senior Library Assistant, and other related roles.



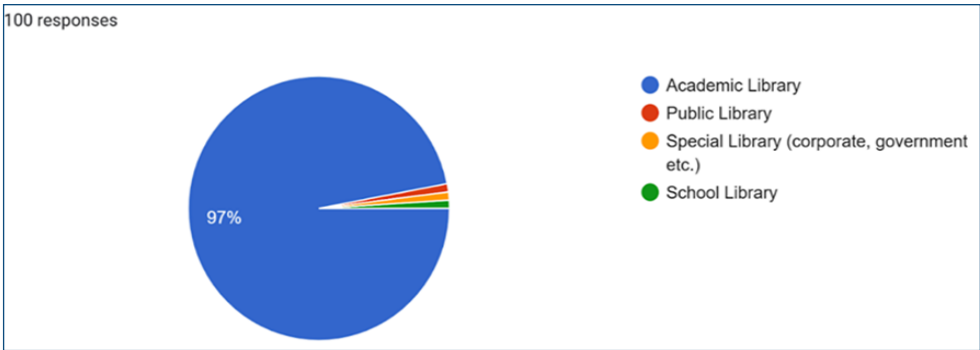
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Fig. 1: Types of Participants

Category of the Library Represented by the Respondents

The chart below shows the types of libraries represented by the respondents. According to the data obtained, the

proportion of respondents was 97% in academic libraries and 1% in public and school libraries. Academic libraries’ participation was significantly higher than that of public, school, and special libraries.

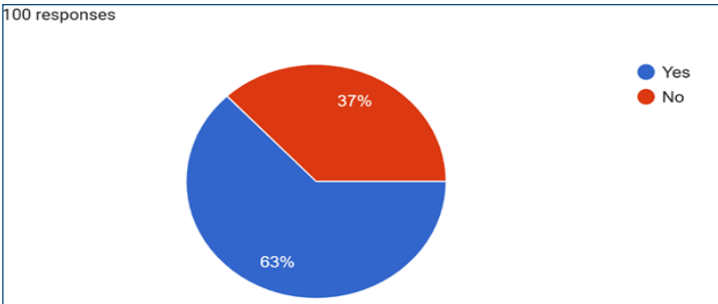


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Fig. 2: Library Represented by the Respondents

Awareness About VuFind Discovery Tool

Based on the results, 63% of respondents were aware of the VuFind discovery tool, whereas 37% were not.



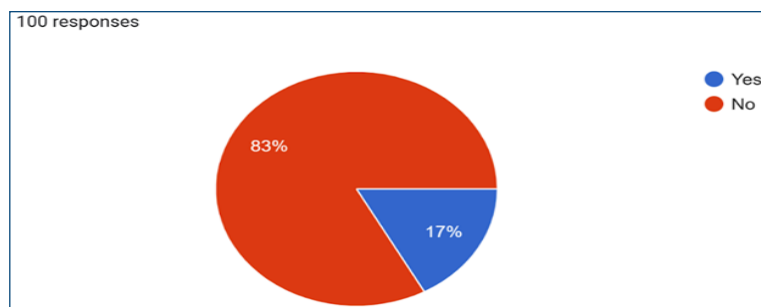
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Fig. 3: Awareness About VuFind Discovery Tool

Usage of the VuFind Discovery Tool in Libraries

Among 100 libraries, 17% reported using the VuFind discovery tool, and the remaining 83% reported not

using it. The researcher noted that the acceptance level of VuFind by the libraries in Pune city is low.



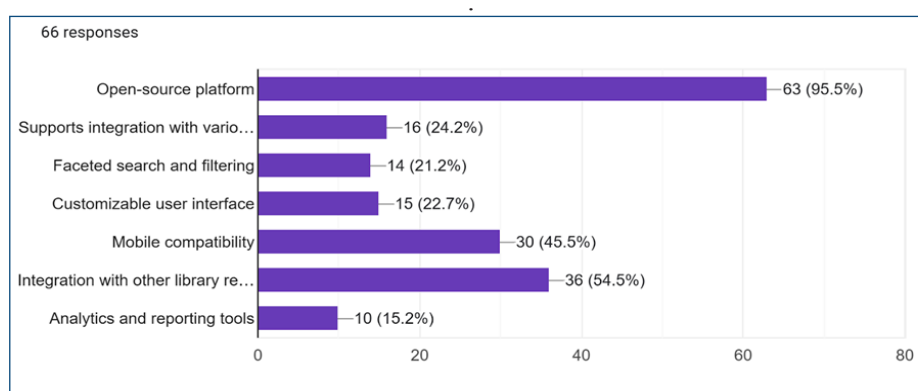
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Fig. 4: Usage of the VuFind Discovery Tool in Libraries

Awareness About VuFind Discovery Tool Features

The following chart provides the awareness of 66 respondents on the features of the VuFind Discovery Tool. These features are open-source platform, integrates with a wide variety of ILS systems, faceted search & filtering, customizable user interface, mobile compatibility, connection with library resources (e.g., databases, digital repositories) and analytics and reporting applications. Key

findings from the responses such as 95.5% of participants are aware that VuFind is an open-source platform, 54.5% are aware of its ability to integrate with library resources such as databases and electronic repositories, 45.5% are aware of VuFind's mobile compatibility, 24.2% know that VuFind supports integration with various ILS systems, 22.7% are aware that the user interface can be customized, 21.2% are familiar with its faceted search and filtering capabilities.



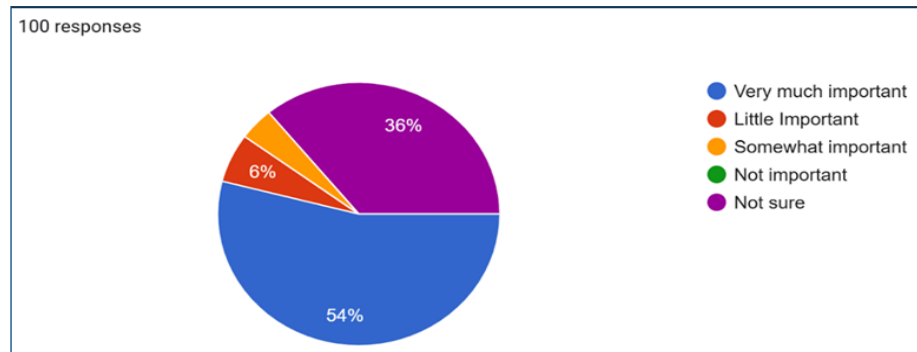
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Fig. 5: Awareness About VuFind Discovery Tool Features

Importance of Implementing the VuFind Tool in Libraries (Respondents' Perspective)

Based on 100 responses, 54 % believe that integrating the VuFind discovery tool into the libraries is important. In

the meantime, 36% of the respondents were uncertain, and only 6% found it somewhat necessary. Overall, the results indicate that most respondents consider the Introduction of VuFind a significant step forward for libraries.



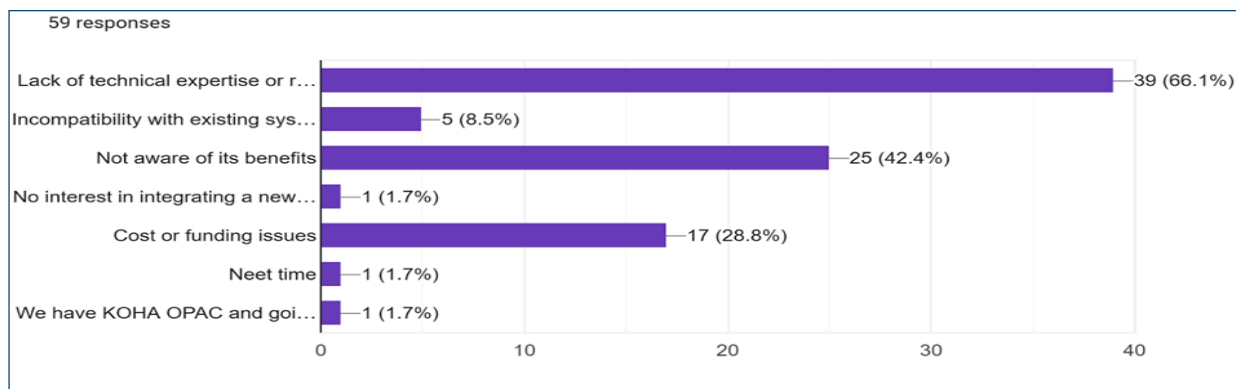
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Fig. 6: Importance of Implementing the VuFind Tool in Libraries

Reasons for Not Implementing VuFind in the Libraries

The figure below shows the reasons respondents gave for not using the VuFind discovery tool in their libraries. There were 59 respondents to this question. The reasons which are found to be the major ones are absence of technical skills or material (66.1%), lack of compatibility

with the current systems (e.g., Integrated Library System (ILS) (8.5%), not aware of its benefits (42.4%), no desire to incorporate a new search tool (1.7%) and Cost or funding issues (1.7%). The obstacles to using VuFind were a lack of technical skills and a lack of knowledge of its advantages. According to the respondents, quality and financial resources were not major challenges. The details are illustrated in the Fig. below.



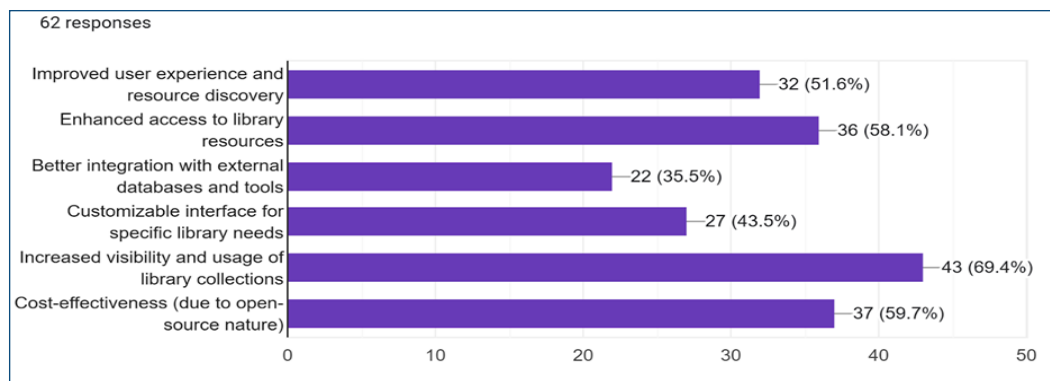
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Fig. 7: Reasons for Not Implementing VuFind in the Libraries

Awareness About the Benefits of the VuFind Discovery Tool

The question asked about participants' awareness of the VuFind Discovery Tool's advantages, and 62 respondents answered. Based on the data 69.4% of the participants reported that VuFind increases library collections' visibility and utilization, 59.7% think it's cost-effective,

58% indicate that it enhances access to resources in the libraries, 51% are aware of how it improves user experience and resource search, 43.5% agree that it provides a customized interface to meet the needs of the libraries and 35.5% say it enhances integration with external databases and tools. Based on the results, most respondents value VuFind's ability to enhance library collection exposure and use.



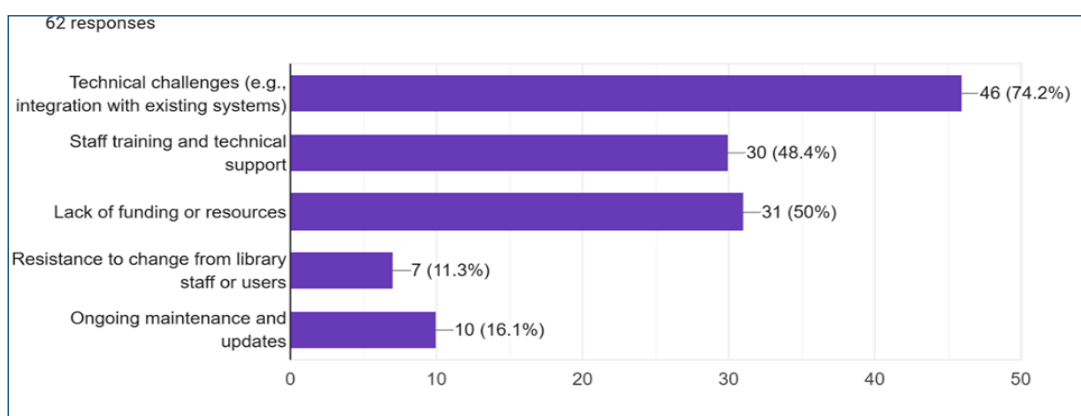
Source: Prepared by author.

Fig. 8: Awareness About the Benefits of the VuFind Discovery Tool

What Challenges Do Respondents Face in Implementing VuFind

Various issues that could pose challenges to deploying VuFind have been highlighted based on information gathered from 62 respondents. The challenges are as follows, with the %age of respondents. Most respondents cited technological issues, especially linking VuFind to their current library systems, as the greatest impediment (74.2%). Half of the respondents reported insufficient financial and human resources a major challenge (50%).

Similarly, almost half of the participants raised issues with a lack of staff training and an absence of ongoing technical support (48.4%) followed by 16.1 % reported ongoing maintenance and updates as a challenge. A smaller yet significant percentage of respondents also reported resistance to the new system, either among personnel or among users (11.3%). These findings emphasize the importance of strategic planning, sufficient training, resource allocation, and change management when implementing VuFind in library settings.



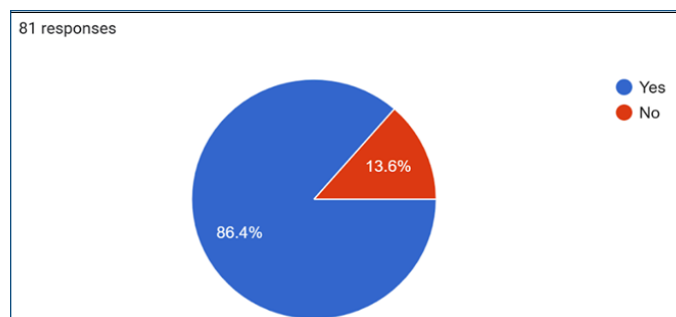
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Fig. 9: Challenges Faced in Implementing VuFind

Participant Feedback on Whether VuFind Can Improve Library Services in the Future

The 81 responses indicate that 86.4% of respondents believe that VuFind can be optimized to provide more productive library services in the future, particularly by

improving the quality of web-based interfaces for library customers. However, 13.6% of the surveyed participants disagree with this argument. In general, the statistics indicate that most respondents are positive about VuFind's contribution to the development of the library service.

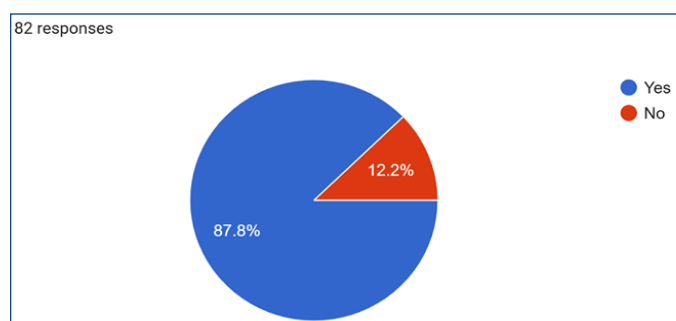


Source: Prepared by author.

Fig. 10: Can VuFind Improve Library Services in the Future?

Participant Recommendations for VuFind Implementation

In the findings, 87.8% of the participants indicated that they would recommend using VuFind in other libraries, and 12.2% indicated that they would not.



Source: Prepared by author.

Fig. 11: Recommendations for VuFind Implementation

Findings

In a study, the VuFind Discovery Tool was also identified as not being significantly utilized but as commonly known among library staff in Pune. The most frequent responses, most of which were affirmative, to the queries in academic libraries included expressions of gratitude for VuFind's open-source nature and for the opportunities to make library collections more visible and accessible. It is also the victim of a lack of technical knowledge, training, and general awareness of its potential. However, the majority of interviewees believe VuFind can be used to build libraries in the future and are confident in this.

The results show that the need to provide additional training, technical support, and awareness to facilitate the successful implementation of VuFind in libraries appears to be unmet.

Suggestions According to Research Findings

- *Training Programs:* The training programs will be active periodically and delivered to the workers of the library in such a way that they can be put in a position where they can be able to use and work with VuFind.
- *Enhance Awareness Campaigns:* Under awareness campaigns, where the entire VuFind functionality would be exhibited, the libraries would be well aware of the benefits of using VuFind.
- *Install Technical Support Systems:* Have special support units or help desks to help the libraries with the installation, configuration, and support of VuFind.
- *Advertise Pilot Projects:* Pilot Projects will be publicized and put on the map since libraries are under stress of using VuFind at the pilot level as a means of first-hand experience and confidence in using it.
- *Support Peer Learning:* The knowledge-sharing or communities-of-practice sessions during which VuFind libraries would be able to share their best practices and experiences should be promoted.
- *Make Acquaintances with the IT Departments:* Create an acquaintance with the IT departments and the library professionals to make the transition of the available systems successful.

Conclusions

Another finding by the researcher is that the VuFind Discovery Tool is extremely well known among library users in Pune, but not popular. It's open-source, and other accessibility considerations can be seen as VuFind opportunities most likely to be accepted by respondents, specifically those employed at universities. However, technical problems remain, and insufficient training is among the most important. Nevertheless, VuFind is regarded by the participants as the library service of

tomorrow and is quite content to have the opportunity to use it. Its results indicate that it would need to train, provide technical support, and raise awareness to succeed in libraries.

Research and Managerial Implications

The researchers and library administrators are also interested in the research findings, particularly the dynamism of discovery tools in Indian libraries. The researchers will be empowered by the study with valuable information on the awareness, adoption, and use of the VuFind Discovery Tool among Pune library professionals. The research gap that the current study will be approaching is the research gap of the study conducted on the application of the VuFind Discovery Tool within the Indian context, and thus, the research bridges the gap by providing information that is linked with the knowledge of the VuFind Discovery Tool among a sample of library professionals in Pune, India. The gap in awareness of the VuFind Discovery Tool is quite broad, which is why we should conduct research on technology acceptance and the factors influencing the introduction of the new technology in Indian libraries.

The research implications for managers include essential factors to consider for the successful implementation of technology in libraries: strategic planning, employee readiness, and supportive infrastructure preparedness. Generally speaking, the workers in the library know the advantages of using VuFind, i.e., more resources will be displayed, but there are also disadvantages, e.g., technical, staffing, and compatibility issues. To address these deficiencies, library managers ought to invest in capacity-building programs, including workshops and training, to enhance the technical capacity of library staff. To simplify the integration process, we will need to enhance cooperation between IT and library personnel. The library administrators themselves will also be asked to consider awareness-raising programs, such as workshops, to educate library employees about the tool, its functionality, and how to implement it to improve the user experience. It would also involve pilot implementations to ensure the tool is efficient, such as assessing its viability, identifying issues on a small scale, and instilling confidence in the tool among staff, which can then be extended to a large scale. The library managers here are best positioned to create

an environment that fosters technological innovation in libraries.

Limitations of the Study

Although this study has several limitations also. To begin with, the research is based on the library professionals in the Pune area, this is why the findings cannot be generalized to other regions. The findings will be more affordable if the study is conducted on a large scale. Also, the entire study is based on self-reported data collected via a structured questionnaire and the data may vary depending on VuFind's technology, perceptions, biases, or knowledge. Moreover, the study does not address the system's usability, which could have provided additional information. On the other hand, the paper has not disregarded the strengths, problems, and capabilities of the system. It does not capture system performance metrics, such as search result accuracy and effectiveness, and user satisfaction after implementation. Such indicators would have been better placed to provide more information about the system's effectiveness.

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Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper. All authors have approved the manuscript and its submission.

AI Disclosure

The authors confirm that no AI-based tools were utilized in conducting this research or writing the manuscript. All content is original and reflects the authors' own work.

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