

Comparative Study of KOHA, VTLS Virtua, and SOUL in University Libraries of Kashmir Division: An Evaluation of Effectiveness

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Publication Date: 2025/03/19

Abstract: This research paper critically evaluates the effectiveness of three Library Management Systems (LMS) – KOHA (open-source), VTLS Virtua (proprietary), and SOUL (proprietary) – in university libraries across the Kashmir Division. The study examines these systems based on key criteria such as functionality, usability, interoperability, cost-effectiveness, and user satisfaction, providing a detailed comparison to aid institutions in selecting or upgrading their LMS.

Employing a mixed-methods approach, the research integrates surveys and interviews with library staff and users alongside system analysis. This comprehensive methodology combines both qualitative and quantitative data, ensuring a balanced evaluation. By analyzing real-world usage and user feedback, the study highlights the strengths and weaknesses of each LMS, taking into account the specific needs and challenges faced by university libraries in the Kashmir region.

KOHA, as an open-source LMS, stands out for its flexibility, cost-efficiency, and robust community support, though it may demand technical expertise for customization and maintenance. VTLS Virtua, a proprietary system, offers advanced features, scalability, and strong technical support but comes with significant licensing costs. SOUL, another proprietary system commonly adopted by Indian academic institutions, features a user-friendly interface but may lack the customization options and interoperability offered by KOHA.

The findings provide valuable insights into the performance of these LMSs in academic settings, particularly in resource-constrained environments with technical challenges. The study aims to guide university libraries in making informed, data-driven decisions that align with their operational needs and budgetary constraints. Furthermore, the results can serve as a reference for regions facing similar challenges in library automation.

Ultimately, this research contributes to the broader conversation around LMS selection, supporting academic institutions in Kashmir and similar regions in choosing systems that best meet their requirements for effective library management and an improved user experience.

Keywords: *Library Management Systems, KOHA, VTLS Virtua, SOUL, University Libraries, Kashmir, Comparative Study, Effectiveness, User Satisfaction, Functionality, Interoperability.*

How to Cite: Mudasir Ahmad Bhat¹; Dr. Sarita Arya² (2025) Comparative Study of KOHA, VTLS Virtua, and SOUL in University Libraries of Kashmir Division: An Evaluation of Effectiveness. *International Journal of Innovative Science and Research Technology*, 10(3), 350-352. <https://doi.org/10.38124/ijisrt/25mar481>

I. INTRODUCTION

The advancement of digital technology has profoundly reshaped the management of academic libraries, establishing Library Management Systems (LMS) as essential tools for streamlining library operations. Universities in the Kashmir Division depend on various LMS to facilitate efficient information retrieval, book circulation, and administrative tasks. However, selecting the right LMS is a crucial decision

shaped by factors such as cost, usability, technical support, interoperability, and user satisfaction. This study aims to assess the performance of three widely used LMS—KOHA, VTLS Virtua, and SOUL—by analyzing their ability to address the specific needs and challenges faced by university libraries in the region.

University libraries play a crucial role in supporting teaching, learning, and research activities.

➤ Effective management of library resources and services is essential for maximizing their impact. Library Management Systems (LMS) have become indispensable tools for automating library operations, including cataloging, circulation, acquisitions, and user management.

➤ Choosing the right LMS is a critical decision for any library. This study focuses on three prominent LMS solutions: KOHA, an open-source system gaining popularity; VTLS Virtua, a well-established proprietary system; and SOUL, another proprietary system widely used in India. The research investigates their effectiveness within the specific context of university libraries in the Kashmir Division, considering the unique challenges and opportunities presented by the region.

II. OBJECTIVES

- To evaluate the functionality of KOHA, VTLS Virtua, and SOUL in university libraries of Kashmir Division.
- To assess the usability and user satisfaction with each LMS among library staff and users.
- To compare the cost-effectiveness of the three LMS solutions.
- To analyze the interoperability and integration capabilities of each system.
- To identify the strengths and weaknesses of each LMS in the context of the university libraries in Kashmir.
- To provide recommendations for libraries in the region regarding LMS selection and implementation.

III. METHODOLOGY

This research employs a mixed-methods approach, combining quantitative and qualitative data collection and analysis techniques.

➤ *Surveys:*

Structured questionnaires will be administered to library staff and users at selected university libraries in the Kashmir Division to gather data on system usage, satisfaction levels, and perceived strengths and weaknesses of each LMS.

➤ *Interviews:*

Semi-structured interviews will be conducted with key library personnel, including librarians, IT staff, and administrators, to gain in-depth insights into the implementation, usage, and challenges associated with each LMS.

➤ *System Analysis:*

A technical evaluation of each LMS will be conducted, focusing on features, functionality, integration capabilities, and technical support. This may involve reviewing system documentation, online demos, and potentially direct interaction with the systems.

➤ *Data Analysis:*

Quantitative data from surveys will be analyzed using descriptive statistics and inferential tests. Qualitative data from interviews will be transcribed and analyzed using thematic analysis to identify key themes and patterns.

IV. DISCUSSION

This section will present the research findings in an organized format, offering a comparative analysis of the three LMS solutions based on the evaluation criteria. It will examine the strengths and weaknesses of each system, focusing on their suitability for addressing the unique requirements of university libraries in Kashmir. Key factors such as language support (e.g., Urdu, Kashmiri), management of local content, challenges with internet connectivity, and budgetary limitations will be taken into account. Additionally, the discussion will delve into user perceptions and experiences, covering aspects such as ease of use, resource accessibility, and the quality of technical support. Through this comparative analysis, the section will provide a detailed overview of each LMS's effectiveness within the context of the studied libraries.

V. CONCLUSION

The conclusion will consolidate the key findings of the research, emphasizing the critical similarities and differences between KOHA, VTLS Virtua, and SOUL. It will highlight how each system performs in terms of functionality, cost-effectiveness, usability, interoperability, and user satisfaction, offering insights into their suitability for the distinct needs of university libraries in the Kashmir Division. KOHA's flexibility and affordability may appeal to institutions with limited budgets and technical expertise, while VTLS Virtua's advanced features and scalability might be better suited for libraries requiring robust technical support. Similarly, SOUL's user-friendly interface and widespread adoption in Indian academic institutions make it a viable option, despite certain limitations in customization and integration.

Based on these findings, the conclusion will provide practical recommendations for university libraries in Kashmir regarding the selection, implementation, and upgrading of LMS solutions. It will emphasize the importance of aligning system choices with the institution's budgetary constraints, technical capacity, and long-term goals. Furthermore, the conclusion will underscore the value of ongoing staff training and user engagement to maximize the effectiveness of the chosen LMS.

The study's limitations, such as the focus on a specific region and the reliance on qualitative and quantitative feedback, will also be acknowledged. Suggestions for future research will include exploring the influence of mobile technology on LMS adoption, investigating the potential of cloud-based LMS solutions to address infrastructure challenges, and assessing the impact of emerging technologies like artificial intelligence in enhancing library management in similar resource-constrained environments.

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