
Koha, SOUL and LIBSYS: A Descriptive Comparative Analysis of Features, Architecture and Suitability

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Abstract

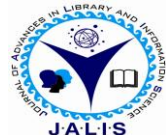
Integrated Library Management Systems such as Koha, SOUL, and LIBSYS Neo serve as the technical backbone of modern libraries. This study undertakes a systematic comparison of these systems with respect to their expansion processes, functionalities, architecture, cost-effectiveness, strengths and weaknesses, and institutional suitability. Employing a descriptive-comparative methodology utilising secondary data, the analysis focuses on functionality, technical architecture, cost, SWOT analysis, and a suitability matrix. Koha, being open-source, benefits from constant updates; SOUL is well-suited for Indian academic libraries and supports INFLIBNET training; and LIBSYS Neo incorporates AI technology at a higher cost. The conclusion asserts that there is no universally superior system: budget-conscious institutions may prefer Koha, UGC-supported institutions typically excel with SOUL, while LIBSYS Neo is better suited for larger organizations needing AI services.

Keywords

Library Automation; Integrated Library Management System; Koha; SOUL; LIBSYS; Comparative Study,

Electronic access

The journal is available at www.jalis.in
DOI: 10.5281/zenodo.23229030



Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 15. No.4. 2026. pp.429-434

1. Introduction

The automation of libraries has been instrumental in changing traditional libraries to be very efficient technology-based sources of information. Moving away from difficult processes to more systematic approaches has enlarged efficiency, reduced errors, and improved user access to information resources. The ILMS automates key operations that include acquisition, cataloging, circulation, serials processing, and online public access catalog. According to Kushwah et al. (2008), automation offers several opportunities to enhance library services. In terms of automated library systems in India's academic libraries, there have been three prominent ones: Koha, SOUL (Software for University Libraries), and LIBSYS.

1.2 Koha

Koha was created by Katipo Communications in 1999 for the Horowhenua Library Trust in New Zealand because no commercial software met their requirements. Koha version 26.05.00 was officially launched in May 2026. As stated in the Koha Community release notes, version 26.05.00 added 2 new features, 214 enhancements, and 365 bug fixes. This was followed by another maintenance version, Koha 26.05.01 in July 2026, which added 2 more enhancements and 56 bugs.

Distinguished features on 26.05.

- User and staff interface and REST API to restore bibliographic and item records that have been accidentally deleted
- Enhancements to OPAC usability
- EDIFACT message viewer
- "Audit" function in bibliographic records to spot any structure errors
- Individual hold fee configuration with different ways to pay vendors
- Electronic Resource Management (ERM) module and cloud hosting options

1.3 SOUL

The SOUL Software was created by the INFLIBNET Centre (INFLIBNET Centre, 2021). While primarily intended for academic libraries, this software can be useful in various types of libraries, including school libraries.

The first version, that is, SOUL 1.0 was released at CALIBER 2000, SOUL 2.0 was released in January

2009, while SOUL 3.0 in February 2021. Key features of SOUL 3.0 include enhanced graphical user interface where themes can be customized by users, Lucene search indexing, cloud hosting, SOUL m-OPAC mobile application, and SMS and email notifications. The SOUL 3.0 follows the standards of MARC 21, AACR-2, MARCXML, and Unicode, and enables RFID integration using the NCIP 2.0 and SIP 2 protocols. There are six main modules, which include Acquisition, Catalogue, Circulation, Serial Control, OPAC and Administration. Trainings for SOUL 3.0 take place regularly at INFLIBNET (INFLIBNET Centre, 2026).

1.4 LIBSYS

LIBSYS was initially called Info-Tek Consultants Pvt. Ltd. in New Delhi in 1984. Its first version came out in 1988. The next versions saw the introduction of web-based architecture in 2008 and RFID in 2015. The latest offerings of LIBSYS are LIBSYS Neo (LIBSYS Ltd., 2026)

LIBSYS Neo is marketed as an AI -based Library Management System. Some of its key functionalities include AI analysis and predictive analysis, AI chatbot, smart cataloguing through automatic metadata enrichment and duplicate identification, seamless management of both print and digital content, API-based integration, Single Sign-On (SAML/Shibboleth/LDAP), Multi-Factor Authentication, RFID and barcode scanning, as well as multi-channel notifications (SMS, WhatsApp, emails, and dashboard notifications). Standards that it supports include WCAG 2.1, RDA, BIBFRAME, FRBR, OAI-PMH, EDIFACT, and NCIP.

1.5 Research Gap

Previous comparative analyses have analyzed earlier iterations of the systems (Kushwah et al., 2008; Naik, 2016; Madhusudhan & Singh, 2016). The recent literature has been more focused on specialized areas like the efficiency of circulation or pairwise module analyses of comparison between SOUL and Koha (Surwade et al., 2025). There has been no comparative analysis yet that examines Koha 26.05.01, the latest iteration of SOUL 3.0, and LIBSYS Neo simultaneously and addresses cost, architecture, SWOT, and suitability for the Indian context.

2. Review of Literature

Initial research carried out by Kushwah et al. (2008) identified the cost benefits and flexibility of Koha against the relevance of SOUL. Similarly, Madhusudhan and Singh (2016) confirmed this trend using earlier versions of the software. One of the existing dilemmas that emerges from this literature is that of openness vs. capability. Recent research keeps bringing up the same problem. For example, Surwade et al. (2025) found that while both SOUL and Koha perform core functions well, Koha is considered more user-friendly and versatile. Chakraborty and Das (2025), who examined library circulation, pointed out that the effectiveness of software depends on the resources of an organisation and the technical capabilities of the institution: Koha because of its versatility and low price, LIBSYS as a solid enterprise system, and SOUL due to its low price and policy compliance.

Studies on implementation beyond the Indian context reveal more about this contradiction. George et al. (2021) found that Koha had been successfully implemented at the University of Guyana with institutional commitment. Similarly, Igbudu et al. (2020) revealed better technical functioning in university libraries in Nigeria. On the other hand, in an investigation of 41 higher education libraries in Zambia, Bwalya & Akakandelwa (2021) noted specific obstacles related to inadequate staff skills, poor internet connectivity, lack of technical support, and upgrade and backup issues. User perception studies make things even more complex. Alam & Mezbah-ul-Islam (2020) have found high levels of satisfaction among users of Koha in Bangladesh, although the level of student satisfaction was lower compared to teacher satisfaction. Salma & Mini Devi (2020) highlighted positive perceptions of librarians towards features such as the web-based nature of Koha, Unicode compatibility, and its customization capabilities, but emphasized the importance of training and technical support.

A further issue appears when we compare SOUL and LIBSYS with Koha research papers. First, the institutional embeddedness of SOUL is an advantage within the UGC-INFLIBNET environment (Kushwah et al., 2008; Naik, 2016; Surwade et al., 2025). However, this feature is accompanied by a slower pace of innovation in major versions (the latest SOUL 3.0 appeared in 2021). As for LIBSYS, it implies commercial responsibility and, in case of

Neo LIBSYS, artificial intelligence capabilities. The tension exists between the stability and technological advances.

Conclusively, the research shows that Koha, SOUL, and LIBSYS all offer basic library functionalities, but they address the inherent conflicts within the systems in different ways: cost and accountability, flexibility and structure, and relevance and innovation. However, what is still lacking is a current and comparative study that identifies the new versions of these systems against the varying contexts of Indian academic libraries.

3. Objectives of the Study

- i. To describe Koha 26.05.01, SOUL 3.0, and LIBSYS Neo.
- ii. To perform a systematic comparison of their functional modules.
- iii. To study their technical architecture.
- iv. To evaluate their cost implications based on available information.
- v. To conduct a SWOT analysis of each system.
- vi. To generate a suitability matrix for various kinds of libraries.

4. Methodology

The methodology of this study is strictly descriptive. No primary data was gathered and no performance testing was performed. All data were obtained from the following secondary sources: official websites, release notes, technical manuals, academic literature, and vendor documentation. The comparison is carried out in relation to five well-defined frameworks:

- Analysis of functional modules (Acquisition, Cataloguing, Circulation, Serials, OPAC, Administration)
- Evaluation of technical infrastructure
- Cost analysis

- SWOT analysis
- Suitability analysis for various libraries

The design emphasizes transparency and replicability. Any researcher having access to the same public resources can validate the results.

Limitations

- Features of the systems have been described according to the capabilities offered by them officially and as per vendors.
- No performance or satisfaction figures are provided.
- The feasibility analysis is based on Indian academic environment.
- Price of LIBSYS is approximated, and its exact price can be obtained through quotation.

5. Comparative Analysis

5.1 Overview and Development History

Table 1. Overview of Development History and Basic Characteristics.

Criterion	Koha	SOUL	LIBSYS
Latest version	26.05.01	3.0	Neo
Licence type	Open-source software	Commercial	Commercial
Developer	Katipo Communications	INFLIBNET	LIBSYS
Distinctive focus	Open-source innovation	Indian academic alignment	AI-enabled enterprise features
Release Date	1999	2000	1984

5.2 Comparison of Core Functional Modules

Table 2. Comparison of Core Functional Modules

Module	Koha 26.05.01	SOUL 3.0	LIBSYS Neo
Acquisition	Budget management, EDIFACT, vendor payment methods	Procurement, vendor and budget tracking	Full procurement, AI recommendations, EDIFACT

Cataloguing	MARC21/UNIMARC, RDA, Audit button, record restore	MARC21, AACR-2, authority control	MARC21/RDA/BIBFRAME, AI metadata enrichment
Circulation	Holds, granular fees, offline circulation	SMS/email alerts, RFID/NCIP support	Unified interface, AI insights, SSO, MFA, RFID
Serials	Subscription and claims management	Full serials control	Comprehensive serials management
OPAC	Highly customisable, accessibility focus	Web OPAC + Lucene + SOUL m-OPAC	Enriched OPAC with AI-supported discovery
Administration	Role management, full ERM module	Dashboard, theme customisation	Role-based access, cloud, analytics

5.3 Technical Architecture

Table 3. Technical Architecture Comparison

Criterion	Koha 26.05.01	SOUL 3.0	LIBSYS Neo
Key standards	UNIMARC. MARC-21. SIP2. NCIP.	AACR2. MARC-21. NCIP 2.0.	BIBFRAME. RDA. FRBR. NCIP. MARC-21.
Search	Elasticsearch / Zebra	Lucene	AI-enhanced search
Architecture	Web-based	Web-based	Web-based
Database	MySQL / MariaDB	MS-SQL, MySQL	Major RDBMS options
Cloud readiness	Yes	Yes	Yes (LS Cloud)
Mobile access	Responsive design	Dedicated m-OPAC app	Responsive + notifications

5.4 Cost Overview

Table 4. Cost Comparison

Cost Element	Koha 26.05.01	SOUL 3.0	LIBSYS Neo
Licence fee	Free	One-time (≈ ₹30,000–80,000)	Paid (one-time or subscription)
Annual maintenance	Optional professional support	Usually required (AMC)	Mandatory AMC
Training	Community resources	INFLIBNET programmes	Vendor-provided
Overall cost level	Low	Medium	High

5.5 SWOT Analysis

Table 5. SWOT Analysis of the Three Systems

System	Strengths	Weaknesses	Opportunities	Threats
Koha	Zero licence cost; frequent updates; large community; ERM & Audit tools	Requires technical expertise for advanced customisation	Continued cloud and SaaS growth	Commercial competition
SOUL	INFLIBNET/UGC backing; active training; mobile app; local relevance	No major version release since 2021	Potential future development paths	Strong open-source alternatives
LIBSYS Neo	Long commercial track record; AI capabilities; enterprise support	Higher total cost of ownership	Further AI and integration advances	Price pressure from open-source options

5.6 Suitability Matrix

Table 6. Suitability of Systems for Different Library Types

Library Type	Most Suitable	Primary Rationale
Small college / limited budget	Koha	No licence fee; strong community support
State/government university (UGC)	SOUL	Institutional alignment and sustained training support
Large or private university	LIBSYS Neo	AI features and commercial accountability
Public library	Koha	Low cost and proven scalability
Multi-branch or consortial setting	Koha	Open APIs and absence of vendor lock-in

6. Major Findings

1. All three systems have full compatibility with library core functions.
2. Discrepancies occur mostly in development models, cost structures, support environment, and advanced functionalities.
3. Koha 26.05.01 shines through its zero licensing fees, regular software updates, robust ERM module, and some innovative features like the Audit feature and deleted records retrieval.
4. The only prerequisite it requires is institutional technical expertise or an external source of technical assistance.
5. SOUL 3.0 remains the most suitable system for Indian academic libraries under the UGC/INFLIBNET system.
6. Features that make SOUL 3.0 a strong contender include continuous training initiatives, separate mobile OPAC application, and reasonable one-time pricing.
7. The lack of a significant update post 2021 can be considered its major drawback.

8. The distinguishing factors of LIBSYS Neo include AI-based cataloguing, prediction analytics, an AI chatbot, SSO/MFA security systems and multi-channel notification.
9. These features are associated with the greatest total cost of ownership.
10. The cost profiles of the systems are vastly different: Koha is a free software with no license fees, but there can be expenses on hosting and support; SOUL is a medium one-time cost profile; LIBSYS Neo is the costliest system of all.
11. Usability depends on the context: small or cash-strapped libraries will prefer Koha; UGC libraries can make best use of SOUL; larger and private universities that need AI functionalities and commercial accountability will go for LIBSYS Neo.

7. Discussion

- These three technologies highlight attention in the selection of library technologies, as noted time and again in the literature.

- Considerations of cost have to be balanced against accountability.
- The Koha software eliminates licensing costs but makes the institution accountable for the implementation and maintenance of the system.
- This corresponds to the issues faced by Bwalya and Akakandelwa (2021). SOUL and LIBSYS Neo offer more accountability than Koha but cost more.
- Innovation pace differs from stability.
- A consistent release schedule ensures constant functional enhancements for Koha. SOUL values firmness and capacity building through consistent training.
- LIBSYS Neo focuses on business innovations related to artificial intelligence.
- Customisation freedom challenges support structure.
- Koha provides libraries with greater flexibility, as libraries are not restricted to a particular company; however, libraries require individuals with strong technical skills to use it.
- Proprietary systems restrict customisation and deliver packaged support.

8. Conclusion

The following descriptive comparative analysis is done for Koha 26.05.01, SOUL 3.0, and LIBSYS Neo based on the present available documentation and previous scholarly evaluation on these topics. Koha is the most open popular choice for libraries. SOUL system will continue its successful work in Indian academic libraries due to proper alignment with institutions and continuous capacity building. LIBSYS Neo has the most sophisticated set of enterprise features enabled by artificial intelligence in comparison with other two systems. The research demonstrates that SOUL and Koha can both be regarded as useful library software. The SOUL system is compatible with Windows, whereas Koha provides more versatile functionalities. It will be necessary for libraries to select the system depending on their needs, resources, and computers.

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