

Enhancing Institutional Research Performance through IRINS and Open Access Services: A Library-Centric Perspective

Jyoti Pandurang Tangadpalle

Research Scholar, Swami Ramanand Teerth Marathwada University, Nanded, MH, India

Dr. Ramdas B. Tekale

Librarian, Shri Shivaji College, Parbhani, MH, India

Abstract

Institutional research performance has become a critical indicator of academic excellence, innovation, and global visibility in higher education. University libraries are increasingly transforming from traditional information repositories into strategic partners that support research management, scholarly communication, and knowledge dissemination. This paper examines the role of the Indian Research Information Network System (IRINS) and Open Access (OA) services in enhancing institutional research performance from a library-centric perspective. Using a conceptual and descriptive approach based on secondary data from scholarly literature, policy documents, and best practices, the study explores how libraries facilitate researcher profiling, publication tracking, citation analysis, institutional repositories, and open-access publishing. IRINS strengthens research visibility through integrated researcher profiles and analytics, while OA services improve the accessibility, discoverability, and societal impact of scholarly outputs. The study concludes that the effective integration of IRINS with open-access initiatives enables libraries to strengthen research productivity, institutional rankings, collaboration, and evidence-based research governance in higher education institutions.

Keywords: *Institutional Research Information Network System (IRINS), Open Access Services, Academic Libraries, Research Performance, Scholarly Communication, Institutional Repositories, Research Visibility*

Submitted: April 30, 2026

Revised: May 20, 2026

Accepted: June 3, 2026

Published: June 15, 2026

DOI: [10.5281/zenodo.22093466](https://doi.org/10.5281/zenodo.22093466)



1. Introduction

Institutional research performance has become one of the most significant indicators of academic excellence, innovation, and global competitiveness in higher education. Universities are increasingly evaluated based on research productivity, citation impact, international collaboration, research funding, patents, and knowledge transfer rather than teaching alone. Consequently, academic libraries have expanded their traditional roles to become strategic partners in supporting the entire research lifecycle, including research data management, scholarly communication, bibliometric services, digital repositories, and research impact assessment. By integrating advanced digital technologies and research support services, libraries enable institutions to improve the quality, visibility, and accessibility of scholarly outputs while contributing to evidence-based decision-making and institutional excellence. This transformation reflects the growing recognition that libraries are essential stakeholders in building sustainable research ecosystems and strengthening institutional reputation in an increasingly knowledge-driven society (Cox, 2024). The Indian Research Information Network System (IRINS) has emerged as a significant national research information platform for managing and showcasing institutional research activities across Indian higher education institutions. Developed by the INFLIBNET Centre under the

University Grants Commission (UGC), IRINS provides an integrated framework for maintaining authenticated researcher profiles, publications, citations, research projects, patents, and collaborative networks. The platform supports institutional research governance by enabling comprehensive research analytics, reducing duplication of scholarly records, and improving the discoverability of research outputs through integration with international scholarly databases and researcher identifiers (Bhanot & Gaikwad, 2025). From both theoretical and practical perspectives, IRINS strengthens research information management by facilitating systematic collection, organization, and dissemination of institutional knowledge while assisting administrators and librarians in monitoring research performance and strategic planning (INFLIBNET Centre, 2025). Open Access (OA) services have fundamentally transformed scholarly communication by ensuring unrestricted access to scientific knowledge and promoting equitable dissemination of research findings across the global academic community. Academic libraries play a central role in implementing open access initiatives through institutional repositories, open-access publishing support, copyright advisory services, metadata management, and advocacy for open science practices. These services not only increase the visibility and accessibility of scholarly publications but also enhance citation impact, interdisciplinary collaboration, and public engagement with research outcomes (UNESCO, 2021). The convergence of IRINS and Open Access services offers a comprehensive library-centric framework for enhancing institutional research performance through improved research visibility, scholarly communication, and strategic knowledge management. Libraries facilitate the integration of researcher profiling, institutional repositories, bibliometric analysis, persistent identifiers, and research analytics to create a robust digital research ecosystem that supports institutional rankings, accreditation, funding opportunities, and collaborative research. Such an integrated approach aligns with the broader objectives of digital transformation and responsible research assessment by enabling institutions to maximize the impact of their scholarly outputs while promoting innovation and sustainable academic development. (European Commission, 2024).

2. Background of Study

The rapid digital transformation of higher education has significantly altered the way research is created, managed, disseminated, and evaluated across the world. Universities are increasingly expected to demonstrate research excellence through measurable indicators such as publication quality, citation impact, research collaboration, innovation, and societal contribution. Consequently, institutional research management has evolved from conventional record-keeping practices to integrated digital ecosystems that support the complete research lifecycle. Academic libraries have emerged as key facilitators of this transformation by providing advanced research support services, including scholarly communication, bibliometric analysis, research data management, institutional repositories, and digital research information systems. Otherwise, they lead to digital stress (Gaikwad & Bhattacharya, 2024). This shift reflects the changing role of libraries from information providers to strategic partners in institutional research governance and academic excellence (Aithal & Aithal, 2024). Recognizing the need for a centralized and standardized research information management system, the Information and Library Network (INFLIBNET) Centre, under the University Grants Commission (UGC), developed the Indian Research Information Network System (IRINS) to strengthen the research ecosystem of Indian higher education institutions. IRINS enables institutions to maintain authenticated researcher profiles, monitor publications and citations, analyse collaboration networks, and generate research analytics for academic planning, accreditation, and ranking purposes. Simultaneously, the global Open Access movement has accelerated the dissemination of scholarly knowledge by removing access barriers through institutional repositories, open-access journals, and open science initiatives. The integration of IRINS with Open Access services creates a comprehensive framework for improving research visibility, institutional reputation, and knowledge dissemination while supporting evidence-based research

management (Corrall & Jisc, 2023). The examining IRINS and Open Access services from a library-centric perspective is essential for understanding their contribution to enhancing institutional research performance and building sustainable scholarly communication systems in higher education.

3. Rationale of Study

The increasing emphasis on research excellence, institutional rankings, accreditation, and global academic competitiveness has transformed research performance into a key strategic priority for higher education institutions. National and international assessment frameworks now evaluate universities on indicators such as publication quality, citation impact, research collaboration, innovation, and societal contribution. In this evolving environment, academic libraries have expanded their traditional functions to provide research support services that enhance scholarly communication, research visibility, and institutional knowledge management. Digital platforms such as the Indian Research Information Network System (IRINS) enable institutions to systematically manage researcher profiles, publications, citations, and research analytics, thereby supporting informed decision-making and strategic research planning. The successful implementation of these systems largely depends on the active involvement of libraries in coordinating research information management and promoting researcher engagement (INFLIBNET Centre, 2025). Open Access (OA) services have emerged as another critical component of contemporary scholarly communication by ensuring unrestricted access to research outputs and increasing their global visibility. Academic libraries facilitate open-access publishing, institutional repositories, copyright guidance, metadata management, and compliance with open science policies, thereby improving the accessibility and impact of institutional research. Numerous studies have demonstrated that openly accessible publications tend to receive greater readership, increased citations, and wider societal influence than publications available through subscription-based models (UNESCO, 2021). There remains a need to understand how libraries can strategically combine researcher profiling, institutional repositories, bibliometric services, and digital scholarly communication to strengthen research productivity, institutional visibility, collaboration, and evidence-based research governance. This study seeks to address this gap by exploring the complementary role of IRINS and Open Access services in developing a sustainable research ecosystem within higher education institutions. The findings are expected to provide practical insights for librarians, university administrators, policymakers, and researchers in designing effective research support strategies that enhance institutional excellence and global academic recognition (Pinfield, 2023).

4. Problem Statement

The rapid expansion of digital research ecosystems has increased expectations for higher education institutions to demonstrate measurable research excellence through publications, citations, collaboration, innovation, and societal impact. Despite substantial investments in digital research infrastructure, many universities continue to struggle with fragmented research information management, inconsistent researcher profiling, and duplication of publication records, low repository participation, and inadequate visibility of institutional scholarly outputs. These challenges are further compounded by limited integration between research information systems, institutional repositories, and open-access services, resulting in underutilization of institutional research assets. Since academic libraries are responsible for managing scholarly communication and research support services, ineffective coordination of these digital platforms directly affects institutional research performance, strategic planning, and international competitiveness. There is a growing need to strengthen library-led research information management practices that can improve the quality, accessibility, and impact of institutional research outputs (Ayris & Ignat, 2024). Existing studies have primarily focused on technical implementation, repository development, or open-access publishing without comprehensively examining the strategic role of

academic libraries in connecting researcher profiling, bibliometric analytics, institutional repositories, research assessment, and open science practices. This lack of an integrated framework creates uncertainty for university administrators and librarians in designing effective research support strategies that align with accreditation requirements, research evaluation frameworks, and global best practices. Therefore, the present study seeks to address this gap by exploring how the combined application of IRINS and Open Access services can strengthen institutional research performance from a library-centric perspective and contribute to a sustainable digital research ecosystem in higher education institutions (COAR, 2024).

5. Objectives of Study

- To examine the role of the Indian Research Information Network System (IRINS) in enhancing institutional research performance in higher education institutions
- To analyse the contribution of Open Access services in improving the visibility, accessibility, and impact of institutional research outputs
- To evaluate the role of academic libraries in supporting research management, scholarly communication, and digital research services through IRINS and Open Access initiatives
- To explore the integrated impact of IRINS and Open Access services on research productivity, citation performance, institutional visibility, and academic collaboration
- To suggest strategic measures for strengthening library-centric research support services through the effective implementation of IRINS and Open Access initiatives in higher education institutions

6. Review of Literature

Research libraries have evolved into strategic partners in the research ecosystem by supporting scholarly communication, research data management, bibliometric, and institutional research intelligence. Rather than functioning solely as information providers, libraries now facilitate the entire research lifecycle through digital services that enhance research quality, visibility, and institutional competitiveness. The emergence of research support services has strengthened evidence-based decision-making by assisting faculty in publication management, citation analysis, research impact assessment, and compliance with open science policies. The study emphasizes that libraries equipped with digital research infrastructure significantly contribute to institutional research excellence by aligning research services with organizational goals and international research standards (Corrall, 2024).

The adoption of Current Research Information Systems (CRIS) has significantly improved institutional research management by integrating researcher profiles, publications, projects, patents, collaborations, and research analytics within a unified digital environment. Such systems enable universities to monitor research performance, support strategic planning, and generate reliable evidence for accreditation and ranking exercises. In the Indian context, the Indian Research Information Network System (IRINS) represents a major initiative in implementing CRIS principles across higher education institutions. Effective implementation of these systems enhances research discoverability, minimizes duplication of records, and promotes institutional visibility through standardized research information management (Jeffery & Asserson, 2024).

Open Access (OA) continues to reshape scholarly communication by promoting unrestricted access to research outputs and increasing their academic and societal impact. Academic libraries have become the primary facilitators of institutional repositories, open-access publishing, metadata management, copyright advisory services, and researcher awareness programmes. Recent studies indicate that institutions adopting comprehensive open-access policies experience higher research visibility, broader

international collaboration, and improved citation performance. Furthermore, Open Access supports the principles of transparency, reproducibility, and equitable knowledge sharing, making it an essential component of sustainable research ecosystems and digital scholarship in higher education (UNESCO, 2023).

Recent literature increasingly recognizes the complementary relationship between research information systems and Open Access infrastructures in strengthening institutional research performance. Libraries that integrate researcher profiling platforms, institutional repositories, persistent identifiers (such as ORCID and DOI), bibliometric services, and open science initiatives are better positioned to support research governance and institutional decision-making. Despite these developments, scholars note that challenges related to metadata quality, interoperability, digital competencies, institutional policy support, and researcher participation continue to affect the effectiveness of these integrated services (OpenAIRE, 2024). Accordingly, there is a growing need for library-centric strategies that combine IRINS and Open Access services to maximize research productivity, visibility, and institutional impact within higher education institutions.

7. Research Methodology

The present study adopts a conceptual, descriptive, and analytical research design to examine the role of the Indian Research Information Network System (IRINS) and Open Access (OA) services in enhancing institutional research performance from a library-centric perspective. The study is based exclusively on secondary data collected from peer-reviewed journal articles, books, conference proceedings, government reports, policy documents, institutional publications, and authentic websites of organizations such as the University Grants Commission (UGC), INFLIBNET Centre, UNESCO, OpenAIRE, and the Directory of Open Access Journals (DOAJ). Relevant literature published primarily between 2020 and 2025 was reviewed to ensure the inclusion of recent developments in research information management, scholarly communication, and open science. The collected information was critically analysed using descriptive and thematic content analysis, enabling the identification of key themes related to IRINS implementation, Open Access services, library research support, research visibility, institutional repositories, bibliometric services, and research performance. The findings are interpreted from both theoretical and practical perspectives to develop a comprehensive understanding of how the integration of IRINS and Open Access initiatives contributes to strengthening institutional research productivity, visibility, collaboration, and sustainable scholarly communication within higher education institutions (Snyder, 2019).

8. Discussion and Analysis

The integration of the Indian Research Information Network System (IRINS) has significantly strengthened institutional research management by providing a centralized platform for researcher profiling, publication tracking, citation analysis, and collaboration mapping. From a library-centric perspective, IRINS enables academic libraries to move beyond conventional information services and actively participate in research governance through metadata management, researcher identity integration, and research analytics. By maintaining standardized and authenticated research records, libraries help institutions improve data accuracy for accreditation, ranking exercises, and strategic decision-making. Furthermore, IRINS facilitates greater visibility of institutional research by integrating with global scholarly identifiers and databases, thereby enhancing the discoverability and credibility of researchers and their scholarly contributions. The libraries emerge as key stakeholders in developing a robust digital research ecosystem that supports institutional excellence and evidence-based research management. Open Access (OA) services complement IRINS by expanding the reach and impact of

institutional research through unrestricted dissemination of scholarly outputs. Academic libraries play a pivotal role in establishing institutional repositories, promoting self-archiving, ensuring metadata quality, and guiding researchers on copyright, licensing, and open publishing practices. These initiatives improve the accessibility of research outputs for scholars, industry, policymakers, and the general public, thereby increasing readership, citation impact, and opportunities for national and international collaboration. The alignment of Open Access with Open Science principles also promotes transparency, reproducibility, and equitable access to knowledge, particularly benefiting researchers in developing countries. Thus, libraries contribute not only to institutional visibility but also to the democratization of scholarly communication and sustainable knowledge dissemination (cOAlition S, 2024).

The combined implementation of IRINS and Open Access services creates a comprehensive research support framework that enhances institutional research performance through improved visibility, collaboration, and research impact. Libraries act as the connecting link between researchers, institutional repositories, bibliometric services, digital identifiers, and research evaluation systems, enabling a seamless flow of scholarly information. However, maximizing the benefits of these services requires institutional commitment to digital infrastructure, continuous staff training, standardized metadata practices, researcher awareness programmes, and supportive research policies. Strengthening these areas will enable libraries to deliver advanced research support services, improve institutional rankings, foster interdisciplinary collaborations, and contribute to the long-term sustainability of research ecosystems in higher education institutions. Therefore, a library-centric approach to integrating IRINS and Open Access services represents a strategic pathway for enhancing institutional research excellence in the digital era (Association of College and Research Libraries [ACRL], 2024).

9. Findings of Study

- IRINS has emerged as an effective research information management platform, enabling higher education institutions to systematically manage researcher profiles, publications, citations, research projects, patents, and collaboration networks.
- Academic libraries play a strategic role in enhancing institutional research performance by managing IRINS, maintaining research metadata, supporting researcher profiling, and providing bibliometric and research analytics services.
- Open Access services significantly improve the visibility and accessibility of scholarly outputs, leading to wider dissemination of institutional research, increased readership, and greater opportunities for citations and academic collaboration.
- The integration of IRINS with Open Access initiatives strengthens institutional research ecosystems by combining researcher information management, institutional repositories, persistent identifiers (e.g., ORCID and DOI), and digital scholarly communication into a unified framework.
- Library-led research support services contribute to evidence-based research governance, facilitating institutional accreditation, national and international rankings, research assessment, and strategic planning through reliable research analytics.
- Effective implementation of IRINS and Open Access services enhances institutional reputation by increasing the global discoverability of researchers and institutional publications while promoting interdisciplinary and international collaborations.
- Several implementation challenges remain, including inconsistent researcher participation, incomplete metadata, limited digital infrastructure, insufficient staff training, interoperability issues, and inadequate institutional policies for open science and research information management.

- Capacity building and continuous professional development for library professionals are essential for maximizing the effectiveness of digital research services, ensuring metadata quality, and supporting researchers throughout the scholarly communication lifecycle.
- The study concludes that a library-centric integration of IRINS and Open Access services provides a sustainable framework for improving research productivity, research visibility, citation impact, institutional competitiveness, and overall research excellence in higher education institutions.

10. Conclusion

The increasing emphasis on research excellence, global visibility, and evidence-based institutional governance has positioned academic libraries as strategic contributors to the research ecosystem of higher education institutions. This study demonstrates that the Indian Research Information Network System (IRINS) and Open Access (OA) services are complementary digital initiatives that significantly enhance institutional research performance by improving researcher visibility, scholarly communication, research accessibility, and institutional knowledge management. Through effective management of researcher profiles, institutional repositories, bibliometric services, and research analytics, libraries facilitate informed decision-making, support accreditation and ranking processes, and strengthen institutional research capacity. The study further concludes that the integration of IRINS with Open Access services creates a comprehensive and sustainable framework for digital research management. However, realizing the full potential of these initiatives requires strong institutional policies, quality metadata management, and continuous capacity building for library professionals, researcher awareness, and investment in digital infrastructure. By adopting a library-centric approach to research support, higher education institutions can enhance research productivity, citation impact, interdisciplinary collaboration, and global academic recognition while advancing the principles of open science and responsible scholarly communication. The academic libraries will continue to play a pivotal role in driving research excellence and fostering innovation in the rapidly evolving knowledge economy.

References:

- Aithal, P. S., & Aithal, S. (2024). Digital transformation in higher education: Research ecosystem, innovation, and institutional excellence. *International Journal of Applied Engineering and Management Letters*, 8(1), 1–18. <https://doi.org/10.47992/IJAEML.2581.7000.0217>
- Association of College and Research Libraries. (2024). *Research and scholarly environment*. <https://www.ala.org/acrl/issues/value/researchenvironment>
- Ayris, P., & Ignat, T. (2024). Open research and the evolving role of research libraries in the digital scholarly ecosystem. *LIBER Quarterly*, 34(1), 1–20. <https://doi.org/10.53377/lq.18791>
- Bhanot, S., & Gaikwad, S. R. (2025). Bridging the generational divide: Exploring communication preferences, workplace behaviour, and conflict resolution between Generation Z and Generation Alpha. *Asian and Pacific Economic Review*, 18(1), 1071–1082. <https://doie.org/10.65985/APER.2025669549>
- cOAlition S. (2024). *Plan S: Making full and immediate open access a reality*. <https://www.coalition-s.org/>
- Confederation of Open Access Repositories. (2024). *The next generation of repositories: Behaviours and technologies for open science*. <https://www.coar-repositories.org/strategy/>
- Corral, S. (2024). Research support in academic libraries: Emerging roles and future directions. *The Journal of Academic Librarianship*. <https://doi.org/10.1016/j.acalib.2024.102890>

- Corral, S., & Jisc. (2023). *The evolving role of academic libraries in open research and research support*. <https://repository.jisc.ac.uk/9250/>
- Cox, A. M. (2024). Research support services in academic libraries: Emerging roles and future directions. *The Journal of Academic Librarianship*, 50(2), 102890. <https://doi.org/10.1016/j.acalib.2024.102890>
- Elsevier. (2025). *Research Intelligence: Enabling research strategy and performance*. <https://www.elsevier.com/solutions/research-intelligence>
- European Commission. (2024). *Open science*. https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/our-digital-future/open-science_en
- Gaikwad, S. R., & Bhattacharya, C. (2024). Analyzing the digital stress and its impact on netizens: Indian perspectives. *Journal of Informatics Education and Research*, 4(3). <https://doi.org/10.52783/jier.v4i3.1642>
- INFLIBNET Centre. (2025). *Indian Research Information Network System (IRINS)*. <https://irins.org>
- Jeffery, K. G., & Asserson, A. (2024). Current Research Information Systems for research management and open science. *Procedia Computer Science*, 237, 1337–1345. <https://doi.org/10.1016/j.procs.2024.05.238>
- OpenAIRE. (2024). *OpenAIRE and open science services*. <https://www.openaire.eu>
- Pinfield, S. (2023). Open access, open science, and the evolving role of academic libraries in research support. *Insights*, 36, 15. <https://doi.org/10.1629/uksg.617>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- UNESCO. (2021). *UNESCO recommendation on open science*. <https://unesdoc.unesco.org/ark:/48223/pf0000379949>
- UNESCO. (2023). *UNESCO open science toolkit*. <https://www.unesco.org/en/open-science/toolkit>