J Data Sci. Info. Citation Studies., 2025; 4(3):363-372.
https://www.jcitation.org

Research Article

Quantitative and Qualitative Analysis of Highly Cited Papers from India on Academic Libraries Research during 2001-2024

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ABSTRACT

Academic libraries are central to higher education, supporting teaching, learning, and research by providing access to diverse resources and promoting information literacy and community engagement. This study examines highly cited publications to identify key trends and focal areas in India's academic library research. Data were retrieved from the Scopus database for the period 2001-2024 using a targeted keyword strategy. A total of 112 highly cited documents (each with six or more citations) were analyzed. The Bibliometrix package in R was used for quantitative analysis, and VOSviewer was employed for network visualization. Findings reveal growth in annual publications, evolving citation patterns, and the active contributions of leading countries, institutions, authors, journals, and keywords. This study provides valuable insights into India's academic library research landscape and offers a framework to enhance scholarly quality and collaboration.

Keywords: Academic Libraries, Artificial Intelligence, Emerging Technologies, ICT Applications, India, Research Collaboration.

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Received: 18-08-2025;
Revised: 06-10-2025;
Accepted: 28-11-2025.

INTRODUCTION

Over the past three decades, the global landscape of academic libraries has undergone a profound transformation to address the changing needs of higher education and research. Once viewed primarily as static repositories of printed materials, academic libraries have evolved into dynamic knowledge hubs that facilitate access to digital resources, support digital scholarship, and manage research data. This transformation has been driven by the exponential growth of digital content, the increasing dependence on online information systems, and the rise of interdisciplinary, data-intensive research methodologies (Academic Libraries, 2009; Li, 2014; Mamdapur, 2022; Abid Hussain, 2023).

Since India's independence, its academic libraries have advanced remarkably alongside the country's higher education system, which now comprises more than 1,100 universities and 43,500 colleges. During the print era, libraries often competed to build the largest physical collections, prioritizing acquisition and collection diversity as symbols of institutional prestige and academic quality. With the advent of digital technology, however, the focus has shifted toward shared access, consortium-based resource acquisition, and user-centric services such as digital literacy, data management, and personalized assistance (Komalla *et al*., 2021; Tait *et al*., 2016; Dixit *et al*., 2024).

In the digital age, Indian academic libraries increasingly function as collaborative and networked institutions. The emergence of integrated library systems and open-access repositories has transformed librarians into specialists in information management and knowledge stewardship (Allen, 2008; Prasad and Nirmala, 2018; Mondal, 2021; Acharya and Vagdal, 2023). These developments have positioned academic libraries as essential contributors to teaching innovation, research productivity, and the dissemination of scholarly knowledge.

The remarkable expansion of research within India's academic libraries represents a noteworthy advancement that necessitates comprehensive evaluation. To thoroughly evaluate its contributions, it is essential to measure and quantify both the volume of research produced and its quality, as well as its tangible impact on the real world. Gaining insight into the depth of knowledge generated, its effects on education, and its role in

DOI: 10.5530/jcitation.20250244

influencing policies or enhancing library services will yield a more precise understanding of its significance. A proper analysis employing a systematic methodology will assist in determining whether this growth is fostering substantial progress and how it can be further enhanced to benefit India's academic and research environment.

Bibliometric analysis acts as a tool for evaluating research performance, mapping collaboration networks, and analyzing citation trends. It reveals the structure of research domains, emphasizes key agendas, and identifies gaps in knowledge. Instruments such as the R bibliometrix package (v4.2) and VOSviewer (1.6.20) facilitate the analysis of keyword co-occurrences and author collaborations. This deepens our comprehension of the conceptual and social frameworks that characterize the research landscape (Abid Hussain, 2023; Academic Libraries, 2009; Li, 2014; Vaishya *et al.*, 2025).

LITERATURE REVIEW

Many bibliometric investigations have concentrated on research pertaining to academic libraries. (Khaerani and Rahmi, 2024) analyzed trends in 4,718 scientific publications associated with "academic library" within the Scopus database spanning from 2014 to 2023. Their research scrutinized the annual growth in publications and thematic developments through keyword mapping, thereby illuminating significant research interests and emerging themes within the literature on academic libraries. (Mitha and Omarsaib, 2025) undertook a review of literature indexed in both Web of Science and Scopus from 1994 until January 18, 2024, with an emphasis on the impact of emerging technologies on libraries within the higher education sector, analyzing 4,345 sources to reveal global research trends and noteworthy articles. Hussain and Ahmad (2023) investigated 373 research papers concerning artificial intelligence in academic libraries published between 2002 and 2022, employing bibliometric indicators to identify trends and research deficiencies.

Additionally, several bibliometric studies have examined articles from the "Journal of Academic Libraries" and "College and Research Libraries". (Ali *et al.*, 2015) analyzed 1,835 articles from the 'Journal of Academic Librarianship' published from 1999 to 2014, concentrating on publication trends and citation behaviors. Ganganna (2017) reviewed 477 published articles from the years 2012 to 2016, while Khanna *et al.*, (2018) investigated 656 articles from 2007 to 2016. Akulwar and Sonwane (2019) conducted a bibliometric analysis of 262 articles from "College and Research Libraries" published from 2014 to 2018. Zia *et al.*, (2022) examined 100 highly cited papers from the 'Journal of Academic Librarianship' from 1983 to 2016.

Eshwara *et al.*, (2024) analysed publication trends in 376 articles from the 'Journal of Academic Librarianship' from 2016 to 2020, while Shukla and Khare (2025) reviewed 2,369 articles from 1988 to 2022. Bansal *et al.*, (2024) conducted a bibliometric study on 1,717 Indian publications related to academic library research from 2014 to 2023, noting publication growth without adequately addressing collaboration and funding on Indian publications on academic library research during the years 2014-23, as indexed in the Scopus database. Data about the growth of publications, the most active countries, institutions, authors, and journals, the most cited articles, keyword mapping, and research trends were analysed.

Scope of the Study

This study aims to understand research related to Indian academic libraries by focusing on the publication data of highly cited papers. Objectives include analysing research trends, identifying leading organisations and authors, examining research subject areas, primary sources in the field, and profiling highly cited articles. This analysis will cover 112 papers published between 2001 and 2024, each with six or more citations.

This study aims to provide a detailed investigation of research related to Indian academic libraries by evaluating only highly cited papers. The objectives include: (i) analyzing overall research trends and issues related to literature growth, publication types, available funding, and the extent of national and international collaboration; (ii) identifying the leading organizations and authors who have significantly contributed to Indian academic research and examining their collaborative relationships; (iii) delineating broad and narrow subject areas of research; (iv) recognizing the primary sources that have actively contributed to this field; and (v) identifying and analyzing the most cited articles that enhance knowledge in Indian academic libraries. This research analyzes 112 extensively referenced articles concerning the field of academic libraries research, all of which have received six or more citations, and were published from 2001 to 2024.

METHODOLOGY

This study used the multidisciplinary Scopus database on December 17, 2024, to collect data on publications related to research in Indian academic libraries. The search strategy (detailed below) involved a mix of keywords relevant to academic libraries, employing Boolean operators and an asterisk (*) for wider searches. Also, it included "India" under the geographic category, spanning the years 2001 to 2024. This method resulted in a total of 423 documents related to the topic. The research concentrated on highly-cited publications, ultimately selecting 112 works cited six times or more for detailed examination, which aligns with top quartile citation performance within the dataset. No language or publication-type filters were applied, ensuring inclusivity in data retrieval. The metadata gathered about 112 publications included data on authors, contributions from organisations, categories of subjects, patterns of collaboration, sources of funding, and keywords. The authors used Microsoft Excel and VOSviewer 1.6.20 to create statistics related to the productivity of authors

and institutions. They also used these tools to illustrate and map the collaboration networks among the organisations and authors involved. Specific bibliometric indicators such as productivity, citation impact, and collaboration were used selectively to assess research performance.

KEY ("academic librar*" OR "higher education librar*" OR "university librar*" OR "college librar*" OR "medical university librar*" OR "agricultural university librar*" OR "technology university librar*") AND (LIMIT-TO (AFFILCOUNTRY, "India")).

ANALYSES AND RESULTS

Figure 1 presents the 112 Highly Cited Papers (HCPs) on Indian academic library research were identified in the Scopus database, covering trends from 2001 to 2024. These papers were published across 34 journal sources, involving 177 authors from 101 organisations. On average, there were RGR=4.66 publications per year, with fluctuations in annual growth. The study revealed that 2010, 2011, and 2019 recorded the highest outputs. Cumulatively, publications output rose from 42 in 2001-12 to 70 in 2013-24, an increase of 66.67% 12 years. The 112 HCPs gathered 1,876 citations, averaging 16.75 per paper. Five publications (4.10%) received 31-99 citations per paper. Most publications were articles (101 papers), reviews (7) and others.

The 112 HCPs revealed both national and international collaboration patterns. They published 70 national-level papers with 1246 citations, averaging 17.8 citations each. There were 10 papers involving international collaboration, with 12 Indian and 12 foreign organisations. Some examples are listed in Table 1.

Publications by Leading Organisations

94 organisations identified based on author affiliations contributed to 112 HCPs. The top 27 organisations individually contributed 2 to 7 papers each, collectively contributed 81 papers, received 1295 citations, accounting for 72.32% publication share and 69.03% citation share of total Indian publications and citations. Table 2 profiles the six most productive organisations and the six most cited organisations.

The Total Link Strength (TLS) of the top 27 Indian organisations varied from 2 to 5. The organisation with the maximum (5) links was Panjab University, Chandigarh. Organisations with 4 links: Jawaharlal Nehru University, New Delhi, Aligarh Muslim University, IGNOU, New Delhi, Bundelkhand University, Gujarat University, Ahmedabad and LT Institute of Project Management, Vadodara. The University of Delhi and Jaypee Institute of Information Technology, Noida had 3 links each, and 13 other organisations had 2 links each. The strongest bilateral collaborative links (3) were between Jawaharlal Nehru University, New Delhi and IGNOU, New Delhi, followed by LT Institute of Project Management, Vadodara and Gujarat University, Ahmedabad, and Central University of Tamil Nadu and Kerala University (2 links each) (Table 3).

Publications by Leading Authors

All 153 (146 Indian and 7 foreign) authors contributed to 112 HCPs. Of these, 131 authors contributed 1 paper each, 16 authors 2 papers each, 2 authors 3, 4 and 5 papers each. Table 5 shows the six most productive authors, classified according to the total number of publications and citations. The top 22 authors individually contributed 2 to 5 papers each and together contributed 56 papers and 878 citations, accounting for 50% and 46.8% share in total Indian publications and citations. Table 4 provides data about the most productive and most cited authors.

The collaboration network of the top 22 Indian authors was analysed for the strength of linkages between contributing authors. B.P.Balaji had 8 linkages, followed by J.S.Mohan Raju and M.S.Vinay (6 links each), M. Tripathi (5 links), M. Nazim, A. Bhatt, B.G. Shalini, and D. Trivedi (4 links each), and S. Kumar, M. Madhusudan, V. Kumar and S.K. Desale (3 links each), linkage strength varying from 2-8 as presented in Table 5.

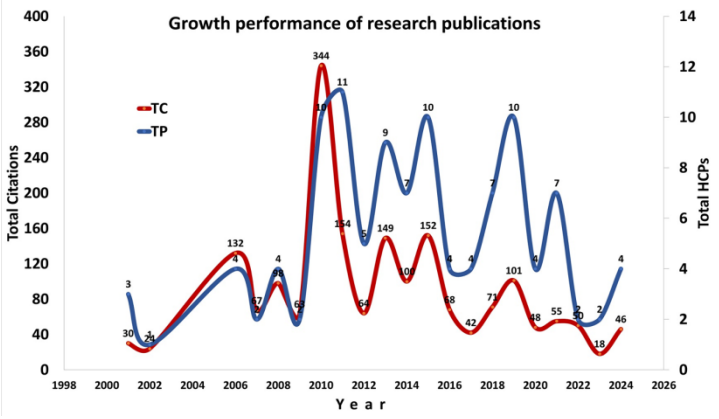

Figure 1: Growth Performance of Indian Academic Library Research Collaboration.

Table 1: Some examples of national collaboration of Indian academic organisations

Sl. No.	University-University Collaboration	NOL
1	Jawaharlal Nehru University, ND - Indira Gandhi National Open University, ND	3
2	Jawaharlal Nehru University, ND - Jiwaji University, Gwalior	1
3	Aligarh Muslim University - Banaras Hindu University, Varanasi	1
4	University of Delhi - Kakatiya University, Warangal	1
5	Mizoram University - University of Delhi	1
6	Central University of Tamil Nadu - University of Kerala	1
	University-College Collaboration	
7	University of Mysore- Govt. First Grade College, Periyapatna, Karnataka	1
8	Kuvempu University- Govt. PU College, Tumkur	1
9	WB University of Juridical Sciences, Kolkata - Muralidhar Girls College, Kolkata	1
	University - Research Institute	
10	Aligarh Muslim University - DESIDOC, DRDO, Delhi	1
11	BB Ambedkar University, Lucknow - Indian Institute of Human Settlement, Bangalore	1
	University - Management Institute Collaboration	**NOL**
12	DCR University of Science and Technology, Murthal, Haryana - Indian School of Business, Mohali	1
13	SNDT Women's University, Mumbai - IES Management College and Research Institute, Mumbai	1
14	Gujarat University, Ahmedabad - LT Institute of Project Management, Vadodara	1
15	Sambalpur University - Indian Institute of Management, Indore	1
	University-Institute of National Importance Collaboration	**1**
16	Central University of Tamil Nadu - Indian Institute of Technology, Kanpur	1
17	Bundelkhand University, Jhansi - Indian Statistical Institute, DRTC, Bangalore	1
19	University of Kolkata - Indian Statistical Institute, DRTC, Bangalore	1

NOL=Number of collaboration network(s)

Publications by Leading Journals

A review of 28 top source journals noted that the top 16 journals published between 2 and 17 papers and contributed 98 papers, which received 1,644 citations, accounting for an 87.50% share of the total papers and citations. The most productive journal was Library Philosophy and Practice, with 17 papers. It was followed by Global Knowledge Memory and Communication, which had 15 papers, and Program: Electronic Library and Information Systems, with 13 papers. The Electronic Library and DESIDOC Journal of Library and Information Technology ranked 4th and 5th with 12 and 7 papers, respectively. The Electronic Library was the most cited journal (31.08 CPP), followed by Program: Electronic Library and Information Systems (25.38 CPP) and VINE (21 CPP). The impact factor, which evaluates a journal's importance based on citation frequency, affects authors' choices for publishing their work. The impact factor of the top 16 journals ranged from 0.47 to 8.0, with five journals having their impact factors above 2.0.

Publication by Narrow Subject Fields

Organisation and management, electronic resources use, and library services are the top three key areas of interest in the field of academic library research in India (Table 6). The keywords in titles and abstracts of 112 HCPs were examined and found that Indian scholars in academic libraries research are pursuing 12 specific research areas. Organisations, management, and use of electronic resources accounted for 35.71% and 26.79% share of publications, respectively. Library services accounted for 16.07% share, library collections (6.25%), library/study and faculty users (5.36%), information dissemination sharing, and library automation software each having a 1.79% share. HCPs, which are grouped under organisation and management, included topics such as ICT technologies (6 papers), web-based technologies (10 papers), cloud computing (5 papers), and more to improve library management. Other research topics included were knowledge management, organisational culture, resource allocation, disaster planning, marketing, and QR code use. Electronic resources use emerged as the second most sought-after research area. It includes research studies on electronic information, books, journals, library websites, and mapping user behaviour to enhance future library collections. Library services appeared as the third important research area, covering service quality evaluation (7 papers), mobile and web-based services, and various other library services. Additionally, there is a focus on enhancing library staff's digital and ICT skills through on-going education programs. The dominance of 'Organisation and Management' and 'Electronic Resources Use' highlights the strong managerial and technological orientation of Indian academic library research.

Significant Keywords

A total of 453 keywords were found across 112 (HCPs), with 386 appearing once, 58 appearing 2-5 times, 7 occurring 6-8 times,

Table 2: **The top 6 Indian most productive and most impactful Indian organisations on Indian academic libraries research.**

Sl. No.	Organization	TP	TC	CPP	RCI	ICP	NCP	TLS
Top 6 Most Productive Organisations								
1	University of Delhi	7	121	17.29	1.03	0	3	3
2	Panjab University, Chandigarh	6	79	12.43	0.74	2	1	5
3	Jawaharlal Nehru University	5	85	17	1.01	0	4	4
4	Aligarh Muslim University	5	84	11.5	0.69			4
5	Central University of South Bihar	4	86	21.5	1.28	0	0	0
6	IGNOU, New Delhi	4	46	11.5	0.69			4
Top 6 Most Impactful Organisations								
1	Kuvempu University, Shimoga	2	94	47	2.81	0	1	1
2	Defence Scientific Information and Documentation Centre	3	76	25.33	1.51	1	1	2
3	Indian Statistical Institute, Bangalore	3	68	22.67	1.35	0	2	2
4	Central University of South Bihar	4	86	21.5	1.28	0	0	0
5	Savitribai Phule Pune University	3	55	18.33	1.09	0	0	0
6	Banaras Hindu University	3	53	17.67	1.05	0	1	1

Table 3: **Examples of national collaborations among Indian organisations**

Sl. No.	Organization	TP	TLS	Collaboration with other authors (links)
1	IGNOU, New Delhi	4	4	JNU, New Delhi (3)
2	Gujarat University, Ahmedabad	2	4	LT Institute of Project Management, Vadodara (2), The Maharaja Sayajirao University of Baroda, Vadodara, India (1), Gujarat Technological University, Ahmedabad (1)
3	LT Institute of Project Management, Vadodara	2	4	Gujarat University, Ahmedabad, India (2), Maharaja Sayajirao University of Baroda, Vadodara (1), Gujarat Technological University, Ahmedabad (1)
4	Central University of Tamil Nadu	2	2	University of Kerala (2)

and 2 appearing 41 and 65 times. Key keywords include "academic libraries" (n = 65), "university libraries" (n = 41), and several others related to technology and services. A VOSviewer analysis identified eight thematic clusters in Indian academic libraries' publications (Figure 2). Cluster 1 focuses on technology and professionals, while Cluster 2 highlights new library technologies. Cluster 3 addresses digital resources, and Cluster 4 deals with access and services. Cluster 5 emphasises university libraries' digital roles, and Cluster 6 discusses emerging technologies in library services. Cluster 7 covers knowledge management in higher education, while Cluster 8 presents open-source solutions. The research themes identified include technological advancements, resource management, and user-centred approaches.

The prominence and relative frequency of these keywords are further illustrated through a WordCloud visualization (Figure 3), where dominant terms such as "academic libraries" and "university libraries" appear more prominently, reflecting their central role in the research landscape. Overall, the study indicates the significant roles of academic and university libraries, alongside increasing digital innovations such as artificial intelligence and cloud computing, demonstrating a strong focus on technology integration and user engagement in contemporary library research.

Top 20 HCP Publications

The 20 most Highly Cited Papers (HCPs) received 847 citations, averaging 42.35 per paper (Table 7). Half of these papers were published between 2002 and 2010, with the highest output in 2010, where 5 papers were released. Out of the 20 HCPs, 14 were authored by single organisations, while 5 involved national collaborations, and only one featured international collaboration. A total of 40 authors from 27 institutions contributed to these papers, which were published across 11 journals. The most cited paper was by Harinarayana and Raju in the Electronic Library, focusing on Web 2.0 features in university libraries, with 99

Table 4: **The top 6 Indian most productive and most impactful Indian authors on Indian academic libraries research.**

Sl. No.	Author	Affiliation	TP	TC	CPP	RCI	ICP	NCP	TLS
Top 6 Most Productive Authors									
1	M.Yuvaraj	Central University of Bihar	5	97	19.40	1.16	0	0	1
2	S. Kumar	Panjab University	5	67	13.40	0.80		0	3
3	M. Tripathi	Jawaharlal Nehru University	4	45	11.25	0.67		3	5
4	M.Madhusudan	University of Delhi	4	110		0.00		1	3
5	B.P.Balaji	Indian Institute of Human Settlements, Bangalore	3	26	8.67	0.52	1	1	8
6	M. Nazim	Banaras Hindu University, Varanasi	3	48	16.00	0.96		2	4
Top 6 Most Impactful Authors									
1	Sampath Kumar, B.T.	Kuvempu University, Shimoga	2	94	47.00	2.81		1	2
2	Desale, S.K.	University of Pune	2	48	24.00	1.43		0	3
3	M.Yuvaraj	Central University of Bihar	5	97	19.40	1.16	0	0	1
4	P. Mahajan	Panjab University, Chandigarh	2	37	18.50	1.10	0	0	2
5	S. T. Seena	University of Kerala	2	34	17.00	1.01		1	2
6	S. Sudhir Pillai	Central University of Tamil Nadu	2	34	17.00	1.01		1	2

Table 5: **Mapping of collaboration among Indian authors.**

Sl. No.	Author	Affiliation	TLS	Collaboration with other authors (links)
1	S. Kumar	Panjab University, Chandigarh	3	Mahajan, P. (2). Vohra, R (1)
2	B.P. Balaji	Indian Institute of Human Settlements, Bangalore	8	B.G. Shalini (2), J.S. Mohan Raju (2), M.S. Vinay (2)
3	A. Bhatt	Gujarat University, Ahmedabad	4	D.Trivedi (2) Trivedi, M (1) , Patel, P.V (1)
4	B.G. Shalini	Indian Institute of Human Settlements, Bangalore	4	B.P..Balaji (2) Vinay, M.S (2) Mohan Raju, J.S (2)
5	S. T. Seena	University of Kerala	2	Sudhier Pillai, K.G. (2)
6	V. Kumar	Babasaheb Bhimrao Ambedkar University, Lucknow,	3	Balaji, B.P (2), Monika (1)
7	J.S. Mohan Raju	Indian Institute of Human Settlements, Bangalore	6	B.P.Balaji (2), B.G.Shalini (2).. Vinay, M.S. (2
8	D. Trivedi	LT Institute of Project Management, Vadodara	4	A.Bhatt (2). Trivedi, M (1), Patel, P.V. (1)
9	V. Kumar	Babasaheb Bhimrao Ambedkar University, Lucknow,	3	Balaji, B.P (2), Monika (1)
10	M.S. Vinay	Indian Institute for Human Settlements Library, Bangalore,	6	B.P.Balaji (2), B.G.Shalini (2).. Mohan Raju, J.S. (2)

TLS - Total Linkage Strength

Table 6: Areas of research in 112 HCPs.

Sl. No.	Subject Field	TP	TC	CPP	%TP
1	Organization and Management	40	672	16.8	35.71
2	Electronic Resources Use	30	725	24.17	26.79
3	Library Services	18	250	13.89	16.07
4	Library Professionals	8	104	13.0	7.14
5	Library Collections	7	66	9.43	6.25
6	Library/Student and Faculty Users	6	72	12.0	5.36
7	Information Dissemination and Sharing	2	31	15.5	1.79
8	Library Automation and Software	2	18	9	1.79
9	Information Retrieval Systems	1	10	10	0.89
10	Library Building - Indoor Environment	1	40	40	0.89
11	Library Conservation and Preservation	1	14	14	0.89
12	Online Web-Based Learning	1	7	7	0.89

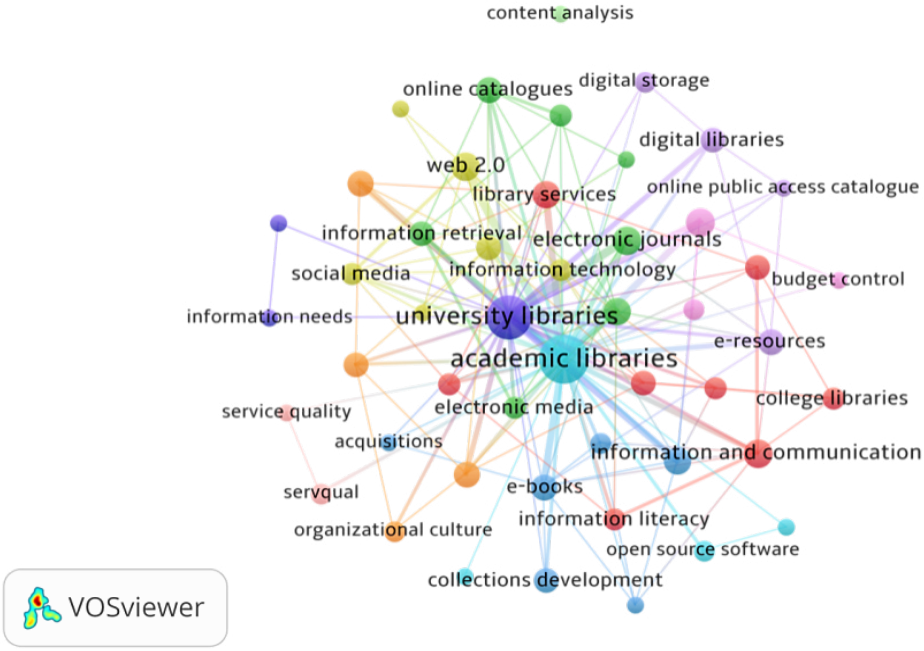

Figure 2: Keyword co-occurrence map highlights the intensity of research activity around specific terms, enabling clearer identification of core, peripheral, and emerging themes within the field.

citations. Other notable papers covered e-books, electronic resources, and service quality in academic libraries. The studies span themes like digital resources, ICT adoption, and emerging technologies, including chatbots and cloud computing. The analysis shows that the period from 2002 to 2010 had the most contributions, highlighting their impact on later research, though recent studies are also gaining attention.

DISCUSSION

The study analysed India's research on academic libraries using bibliometric and visual analysis. Although the quantity of research output is moderate, its impact is significant. From 2001 to 2024, 177 researchers from 101 institutions authored 112 HCPs published in 34 journals, collectively receiving 1,876 citations, averaging 16.55 per paper. 2010, 2011, and 2019 were identified as having the highest research output in this field. Research output grew from 42 papers (2001-2012) to 70 papers (2013-2024).

Table 7: List of Top 20 most cited papers.

Sl. No.	Authors	Title	Source	Citations
1	Harinarayana, N.S., Raju, N.V.	Web 2.0 features in university library websites	(2010) Electronic Library, 28 (1), 69-88	99
2	Anuradha, K.T., Usha, H.S.	Use of e-books in an academic and research environment: A case study from the Indian Institute of Science	(2006) Program, 40 (1), 48-62.	95
3	Madhusudhan, M.	Use of electronic resources by research scholars of Kurukshetra University	(2010) Electronic Library, 28 (4), 492-506.	61
4	Kumar, B.T.S. , Kumar, G.T	Perception and usage of e-resources and the internet by Indian academics	(2010) Electronic Library, 28 (1), 137-156.	55
5	Sahu, A.K.	Measuring service quality in an academic library: An Indian case study	(2007) Library Review, 56 (3), 234-243.	51
6	Pant, A.	Usability evaluation of an academic library website: Experience with the Central Science Library, University of Delhi	(2015) *Electronic Library*, 33 (5), 896-915.	47
7	Kaushal, V., Yadav, R.	The Role of Chatbots in Academic Libraries: An Experience-based Perspective	(2022) Journal of the Australian Library and Information Association, 71 (3), 215-232.	41
8	Ghosh, B., Lal, H, *et al.*,	Estimation of bioaerosols in the indoor environment of the University Library of Delhi	(2013) *Sustainable Environment Research*, 23 (3), 199-207.	40
9	Sampath Kumar, B.T., Biradar, B.S.	Use of ICT in college libraries in Karnataka, India: A survey	(2010) Program, 44 (3), 271-282	39
10	Krishnamurthy, M.	Open access, open source and digital libraries: A current trend in university libraries around the world	(2008) *Program*, 42 (1), 48-55.	39
11	Bansode, S.Y. Desale, S.K.	Implementation of RFID technology in the University of Pune Library	(2009) *Program*, 43 (2), 202-214.	37
12	Yuvaraj, M.	Determining factors for the adoption of cloud computing in developing countries: A case study of Indian academic libraries	(2016) Bottom Line, 29 (4), 259-272.	32
13	Husain, S., Nazim, M.	Use of different information and communication technologies in Indian academic libraries	(2015) Library Review, 64, 135-153.	29
14	Nisha, F., Ali, P.M.N.	Awareness and use of e-journals by IIT Delhi and Delhi University library users	(2013) Collection Building, 32 (2), 57-64.	29
15	Seena, S.T., Sudhier Pillaiw, K.G.	A study of ICT skills among library professionals in the Kerala University Library System	(2014) *Annals of Library and Information Studies*, 61 (2), 132-141.	27
16	Kumar, A., Mahajan, P.	Evaluating library service quality of the University of Kashmir: a LibQUAL+ survey	(2019) *Performance Measurement and Metrics*, 20 (1), 60-71.	26

Sl. No.	Authors	Title	Source	Citations
17	Rah, J.A., Gul, S., Wani, Z.A.	University libraries: Step towards a web based knowledge management system	(2010) VINE, 40 (1), 24-38.	26
18	Kaur, T.	Disaster planning in university libraries in India: A neglected area	(2009) New Library World, 110 (3-4), 175-187	26
19	Yuvaraj, M.	Perception of cloud computing in developing countries: A case study of Indian academic libraries	(2016) Library Review, 65 (1-2), 33-51	24
20	Ramaiah, C.K., Lakshman Moorthy, A.	The impact of continuing education programmes on library and information science professionals	(2002) Library Review, 51 (1), 24-31	24

Figure 3: WordCloud map of significant keywords provides a visual representation of the most frequently occurring terms, thereby highlighting the dominant themes and key areas of research emphasis within the dataset.

The study emphasises the need for increased governmental support to encourage future research in academic libraries. Of the 112 papers, 70 were produced collaboratively, receiving 1,246 citations, indicating that collaboration is crucial for improving research quality. National collaboration was more prominent than international cooperation.

Academic institutions were at the forefront of contributions, with the University of Delhi and Panjab University emerging as the most productive. Kuvempu University achieved the highest citation impact. M. Yuvaraj and S. Kumar distinguished themselves as the most prolific authors. The journal with the highest research output was Library Philosophy and Practice, whereas the journal boasting the highest impact factor was Electronic Library and Program. The top 20 HCPs published from 2002 to 2022 garnered a total of 847 citations, underscoring significant papers on subjects such as Web 2.0 and e-books in academic libraries, which reflect an increasing interest in artificial intelligence and automation in contemporary research.

LIMITATIONS

The research exclusively used the Scopus database for its data collection, omitting other sources such as Web of Science and Dimensions.ai, which could result in the oversight of certain publications. Using multiple databases is challenging, such as merging data from different sources presented in various formats. Additionally, information concerning funding might not always be comprehensive, as the name of the author under study might resemble that of another author, and so forth.

CONCLUSION

This study provides an in-depth examination of India's contribution to academic library research over the last 24 years. It assesses the nation's research output at the levels of authors, institutions, and the country as a whole. Significant findings reveal a transition towards digital resources, automation, and artificial intelligence, with only a limited number of institutions and authors making substantial contributions. Additionally, there is an increasing emphasis on service quality, user behavior, and resource optimization. These insights can assist experts and policymakers in pinpointing emerging research domains and influencing the future trajectory of academic library research in India.

ACKNOWLEDGEMENT

We would also like to acknowledge the valuable editorial support and constructive inputs received from Dr. Raju Vashiya and Dr. V. K. K. Jeevan of IGNOU, which greatly helped in refining the manuscript and enhancing its overall quality.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

Abid Hussain. (2023, February 13). *Role of libraries in Academic Resources of Higher Education Institutions*. https://thediplomaticinsight.com/role-of-libraries-in-academic-resources-of-higher-education-institutions/

Academic Libraries. (2009). In M. J. Bates and M. N. Maack (Eds.),*Encyclopedia of Library and Information Sciences, Third Edition* (3rd Edition, pp. 11-22). CRC Press. DOI: 10.1081/E-ELIS3-120044525

Acharya, S. K., and Vagdal, T. (2023). The role of academic libraries in the context of national education policy (NEP)-2020. *IP Indian Journal of Library Science and Information Technology, 8*(1), 32-36. DOI: 10.18231/j.ijlsit.2023.006

Akulwar, M. S., and Sonwane, S. S. (2019). Bibliometric Analysis of College and Research Libraries. Journal of Emerging Technologies and Innovative Research, 6(3), 210-217.

Ali, H., Mahadevamurthy, M., and Jagadeesha, B. M. (2015). A Bibliometric Analysis of the Journal of Academic Librarianship. *International Journal of Library and Information Studies, 5*(4), 83-90.

Allen, M. (2008). Promoting Critical Thinking Skills in Online Information Literacy Instruction Using a Constructivist Approach. *College and Undergraduate Libraries, 15*(1-2), 21-38. DOI: 10.1080/10691310802176780

Bansal, J., Joshi, M. K., and Bansal, M. (2024). Knowledge Mapping of Academic Libraries Research in India: A Study from 2014-23. *Annual Proceedings of the Science and Technology Metrics*, 131-142. DOI: 10.6025/stm/2024/5/131-142

Bindiya, B. H., and Prajwal, R. (2023). A Comparative Study on Libraries in NGOs and Universities. *International Journal of Novel Research and Development, 8*(8), b753-b766.

Dixit, C., Dixit, K. L., Dixit, C. K., and Pandey, P. K. (2024). Role of Academic Libraries and Information Services: A Study. *International Journal of Modern Achievement in Science, Engineering and Technology, 1*(2), 76-82. DOI: 10.63053/ijset.28

Eshwara, Y., Ali, K. S., Ningayya, and Hemantha Kumar, G. H. (2024). Bibliometric Study of The Journal of Academic Librarianship 2016-2020. *International Journal of Library and Information Science, 13*(2), 51-56. DOI: 10.5281/ZENODO.13628607

Ganganna, C. (2017). A bibliometric analysis of the Journal of Academic Librarianship for the period of 2012-2016. *International Journal of Library and Information Studies, 7*(3), 322-327.

Gupta, B. M., Dhawan, S. M., and Mamdapur, G. M. N. (2021). Research on Public Library: A quantitative and qualitative assessment of global publications during 2001-2020. *Indian Journal of Information, Library and Society, 34*(1-2), 25-45.

Hafijull Mondal. (2021). Role of library in higher education: Issues and challenges in 21st century. In *Higher Education: Issues and Challenges* (pp. 1-10). Unpublished. http ://rgdoi.net/10.13140/RG.2.2.27881.01126

Hussain, A., and Ahmad, S. (2023). Mapping the Literature on Artificial Intelligence in Academic Libraries: A Bibliometrics Approach. *Science and Technology Libraries*, 1-16. DOI: 10.1080/0194262X.2023.2238198

Khaerani, I., and Rahmi, H. Z. (2024). Trends in Academic Library Publications for the 2014-2023 Period in Scopus Database. *Indonesian Journal of Librarianship*, 152-172. DOI: 10.33701/ijolib.v5i2.4682

Khanna, S., Bansal, J., Sood, S., and Tiwari, D. (2018). Journal of Academic Librarianship: A Bibliometric Analysis. *International Journal of Library Information Network and Knowledge, 3*(2), 123-133.

Komalla, R., Aparna, S. D., and Muthu, M. (2021). A Vital Role of Academic Library in Higher Education in the Digital Age. *International Journal of Emerging Technologies and Innovative Research, 8*(11), a53-a64.

Li, L. (2014). *Scholarly information discovery in the networked academic learning environment*. Chandos Publishing, an imprint of Elsevier Limited. DOI: 10.1016/C2013-0-18352-3

Mamdapur, G. M. (2022). *The impact of social media and libraries: A global analysis of publications*. 588-600.

Mitha, S. B., and Omarsaib, M. (2025). Emerging technologies and higher education libraries: A bibliometric analysis of the global literature. *Library Hi Tech, 43*(2/3), 1248-1270. DOI: 10.1108/LHT-02-2024-0105

Prasad, M. M. S., and Nirmala, G. (2018). The Evolution of Academic Libraries in the Digital Age. *International Journal of Science and Research (IJSR), 7*(4), 1793-1795. DOI: 10.21275/SR18041164126

Shukla, V. K., and Khare, R. K. (2025). Assessing the Scholarly Significance of the "Journal of Academic Librarianship": A Comprehensive Bibliometric Study. *International Advanced Research Journal in Science, Engineering and Technology, 12*(1), 222-233. DOI: 10.17148/IARJSET.2025.12126

Tait, E., Martzoukou, K., and Reid, P. (2016). Libraries for the future: The role of IT utilities in the transformation of academic libraries. *Palgrave Communications, 2*(1), 16070. DOI: 10.1057/palcomms.2016.70

Vaishya, R., Gupta, B. M., Mamdapur, G. M. N., Basal, M., and Vaish, A. (2025). Impact of Artificial Intelligence Interventions on Learning Outcomes in Distance Education: A Bibliometric Analysis of Highly Cited Research (2003-2023). *Journal of Data Science, Informetrics, and Citation Studies, 4*(2), 132-142. DOI: 10.5530/jcitation.20250199

Vara Lakshmi, R. S. R. (2007). Academic Libraries: Objectives and Functions. In *Block-1 Development of Academic Libraries* (pp. 9-22). Indira Gandhi National Open University. http://egyankosh.ac.in//handle/123456789/11272

Zia, A., Haq, I. U., Satti, M. H., and Haq, F. U. (2022). Mapping of Highly Cited Articles Published in The Journal of Academic Librarianship. *Library Philosophy and Practice, 7039*, 1-14.

Cite this article: Gupta BM, Verma MK, Kappi M, Tripathi M, Mamdapur GMN. Quantitative and Qualitative Analysis of Highly Cited Papers from India on Academic Libraries Research during 2001-2024. Journal of Data Science, Informetrics, and Citation Studies. 2025;4(3):363-72.