DESIDOC Journal of Library & Information Technology, Vol. 45, No. 4, July 2025, pp. 286-296, DOI : 10.14429/djlit.21018

Measuring the Online Presence and Research Visibility of Indian Library and Information Science Educators: Insights Analysis Based on Google Scholar

Subham Giri* and Rupak Chakravarty

Department of Library & Information Science, Panjab University, Chandigarh - 160 014, India
**Email: asst.librarian@lnmiit.ac.in*

ABSTRACT

This study investigates the online presence and research visibility of full-time Library and Information Science (LIS) educators in India, using google scholar data to analyse citation metrics, publication outputs, and collaborative networks. By adopting a scientometric and bibliometric approach, the research ranks the top 20 most productive LIS educators and identifies the most-cited publications, offering insights into influential research themes within the field. Key findings reveal that Prof. Manoj Kumar Verma stands out for his exceptional productivity, averaging 20.68 publications per year over just 16 years, with a total of 331 publications, the highest number of Google Scholar-indexed publications among all current LIS educators serving in state and central universities. This highlights his rapid and impactful scholarly contributions. Emerging scholars Prof. Thanuskodi S and Prof. Madhusudhan Margam showcase high productivity, with Prof. Thanuskodi leading in total citations (2,703) and annual citations (180.2), highlighting India's dynamic LIS research landscape. They lead in key metrics such as total citations, g-index, h-index, and i10-index, underscoring their influential contributions to the field. The study provides valuable insights into research trends, collaborative strengths, and thematic focuses, offering guidance for policymakers and institutions to enhance global research visibility and innovation in LIS education in India.

Keywords: Online presence; Research visibility; Library and information science (LIS) educators; Google scholar; Citation metrics; Research productivity

1. INTRODUCTION

Library and Information Science (LIS) plays a vital role in promoting knowledge dissemination, research support, and information access, particularly in a diverse and knowledge-driven country like India[7]. As the discipline evolves in response to digital transformations and shifting academic priorities, the research visibility and scholarly output of LIS educators have become key indicators of academic progress and institutional reputation. Assessing the research performance of LIS educators is therefore crucial for understanding academic impact, guiding policy decisions, and strengthening LIS education in the national context[9].

This study presents a comprehensive bibliometric analysis of full-time LIS educators affiliated with state and central universities across India that offer regular-mode BLIS and MLIS programs. Additionally, prominent institutions such as ISI–DRTC and IGNOU are included for their substantial research contributions in LIS. The analysis is based on data retrieved from individual and verifiable Google Scholar (GS) profiles, processed using Publish or Perish (PoP) software to extract core citation metrics such as total publications, citations, h-index, and i10-index[10]. Further, VOSviewer is employed to visualise co-authorship patterns, collaborative networks, and thematic clusters within the Indian LIS research community[5].

What sets this study apart is its national-level coverage, encompassing 85 LIS schools, and its exclusive focus on GS-based bibliometric data an approach not previously undertaken in Indian LIS research. While earlier studies have examined research trends within specific universities or limited samples, no prior work has systematically evaluated the scholarly impact of LIS educators across India using GS data. By integrating GS, PoP, and VOSviewer, this study offers a robust, multidimensional view of research productivity, influence, and collaboration patterns. The findings aim to inform academic institutions, policymakers, and researchers about current performance trends, identify high-impact educators, and support strategic enhancements in LIS education and research aligned with global academic benchmarks[9].

2. LITERATURE REVIEW

One of the primary tools for measuring research visibility is Google Scholar, which has been widely adopted due to its comprehensive coverage of scholarly

Received : 22 January 2025, Revised : 11 April 2025
Accepted : 21 May 2025, Online published : 15 July 2025

literature. Ali & Richardson, (2019) conducted a study on the Google Scholar citation metrics of Pakistani LIS scholars, highlighting that many outputs from this cohort are published in journals not indexed by traditional databases like Web of Science (WoS) or Scopus[3]. This situation limits the potential for broader visibility and impact assessment[4]. Similarly, Lohia & Prakash explored the Google Scholar profiles of LIS faculty at central universities in North India, revealing that a significant percentage 74 % of faculty members maintained Google Scholar profiles, indicating a growing trend towards utilising this platform for enhancing research visibility[7]

The effectiveness of Google Scholar as a citation metric has been debated in the literature. Aalst 2010 argued that while Google Scholar may not provide substantial advantages over traditional citation databases, it still offers a satisfactory means of assessing research impact, particularly in fields like education[1] This assertion is supported by Martín-Martín *et al.*, who conducted a systematic comparison of citation sources and found that Google Scholar captures a significant number of citations unique to its database, which can be particularly beneficial for disciplines like LIS that may not be fully represented in more selective databases[8].

Collaboration among LIS educators is another critical factor influencing research productivity and visibility. Onyancha (2018) mapped collaboration and impact in LIS research across sub-Saharan Africa, identifying key authors and institutions involved in collaborative efforts. This study emphasised the importance of collaborative networks in enhancing the visibility and impact of research outputs[11]. In a similar vein, Jain (2017) highlighted the necessity for collaboration between LIS educators and practitioners, suggesting that modern educational practices require synergies between these groups to improve research outcomes[6].

The role of institutional support in fostering research visibility is also crucial. Ahmad *et al.,* provided a quantitative analysis of LIS literature published globally, indicating that institutional affiliations significantly influence research productivity and citation rates[2]. This finding aligns with the work of (Ortega & Aguillo, 2013), who examined institutional and country collaboration in Google Scholar, revealing that aggregated data at the institutional level can dilute biases and provide a clearer picture of research impact[12].

While previous studies have explored the research output of LIS educators in select regions or institutions, there remains a notable absence of a nationwide, data-driven assessment of their scholarly visibility using Google Scholar. This study fills that gap by offering the first comprehensive, national-level bibliometric analysis of Indian LIS educators, integrating Google Scholar, Publish or Perish, and VOSviewer to present a multidimensional view of research productivity and collaboration.

3. SCOPE OF THE STUDY

This study examines the research visibility and scholarly impact of full-time Library and Information Science (LIS) educators affiliated with state and central universities across India that offer regular-mode BLIS and MLIS programs. A total of 85 LIS schools were identified for inclusion based on the presence of regular faculty members who maintain individual and verifiable Google Scholar (GS) profiles. LIS schools in which no educator had an individual GS profile were excluded, as the absence of publicly accessible data made bibliometric analysis unfeasible.

Google Scholar was selected as the primary data source due to its comprehensive indexing of diverse scholarly outputs, including journal articles, conference papers, theses, books, and grey literature. Its accessibility and compatibility with Publish or Perish (PoP) software make it a practical tool for citation analysis in the LIS domain, where coverage in traditional databases like Scopus or Web of Science may be limited. Nevertheless, the study acknowledges inherent limitations of GS, such as the inclusion of non-peer-reviewed materials, potential data inconsistencies, and limited metadata control. Despite these issues, GS remains a widely accepted platform for capturing a broad picture of an individual's research footprint.

Notably, the scope of the study includes prominent institutions such as ISI–DRTC and IGNOU. Although IGNOU primarily offers distance education, it was included due to its dedicated research faculty in LIS and their notable scholarly contributions, which align with the study's focus on academic impact rather than teaching mode. Beyond institutional coverage, the study also explores the most highly cited publications authored by LIS educators, aiming to identify influential research themes, collaborative patterns, and areas of sustained scholarly interest within the Indian LIS academic community.

4. METHODOLOGY

This study adopts a mixed-methods approach, combining both quantitative and qualitative techniques to assess the research productivity and scholarly visibility of Indian LIS educators affiliated with state and central universities offering full-time BLIS and MLIS programs. Educators from ISI–DRTC and IGNOU were also included to ensure comprehensive national representation. The initial step involved identifying LIS departments across Indian universities, followed by the compilation of a list of LIS educators actively involved in research. Only those educators with verified and publicly accessible individual Google Scholar (GS) profiles were included for bibliometric analysis, to ensure consistency and data accuracy.

Bibliometric data were extracted from each GS profile using the Publish or Perish (PoP) software. Key indicators such as total publications, total citations, h-index, i10-index, and citation trends were recorded. The data were manually verified, cleaned, and compiled in structured spreadsheets to eliminate duplicates and correct discrepancies. For advanced analysis, the dataset was imported into VOSviewer to visualise research trends, collaboration networks, and thematic clusters through co-authorship and keyword mapping. The entire

data collection and extraction process was completed by 31st December 2024, and the analysis reflects the state of GS profiles as of that date.

5. OBJECTIVES

5.1 To Rank the Most Productive Indian LIS Educators

Identify and rank the top 20 most productive Library and Information Science (LIS) educators in India based on publication and citation metrics available through Google Scholar.

5.2 To Analyze Leading Authors and their Collaborative Networks

Examine the most active LIS authors and assess their co-authorship patterns to understand the extent and nature of research collaborations.

5.3 To Identify Highly Cited Publications by Indian LIS Educators

List and analyze the top 20 most-cited research publications authored by Indian LIS educators to highlight their major scholarly contributions.

5.4 To Explore Research Trends and Thematic Focus Areas

Map prominent research themes and emerging areas of interest in LIS through a keyword and co-occurrence analysis using bibliometric visualisation tools.

6. FINDINGS

6.1 Ranking List of the Top 20 Most Productive Indian LIS Educators as Per Google Scholar (GS)

In evaluating productivity and impact within Library and Information Science (LIS) in India, a multifaceted analysis is conducted, examining key metrics among the top 20 LIS educators. These educators are assessed by the highest number of publications, total citation counts, and rankings based on indices such as the h-index, g-index and m-index. Additional factors, including average citations per paper and citations per year, provide further insights into each educator's scholarly influence and research visibility.

6.1.1 Productivity Analysis of Top LIS Educators Based on Total Publications and Annual Output

This section presents a comparative analysis of the productivity of the top 20 Library and Information Science (LIS) educators in India, based on two metrics: total publications indexed in Google Scholar (GS) and average publications per year. This analysis aims to identify not only the most prolific scholars in total output but also those who demonstrate the highest annual productivity rates, providing insights into research influence and career trajectories.

6.1.1.1 High Annual Output: Productivity Rates in LIS Scholarship

An analysis of annual publication rates reveals a different dimension of productivity. Prof. Manoj

Table 1. Top LIS educators based on total publications and annual output

Rank	Author	Papers	Years	Papers/year
1	Prof. Manoj Kumar Verma, Mizoram University	331	16	20.68
2	Prof. Manoj Kumar Sinha, Assam University	317	39	8.13
3	Prof. Mallinath Kumbar, University of Mysore	263	34	7.74
4	Prof. Ranganathan C, Bharathidasan University	229	25	9.16
5	Dr. M. Surulinathi, Bharathidasan University	223	20	11.15
6	Prof. Madhududhan Margam, University of Delhi	206	21	9.81
7	Prof. Harinarayana N.S., University of Mysore	171	35	4.89
8	Prof. Thanuskodi S, Central University of Tamil Nadu	166	15	11.07
9	Prof. Sadik Batcha M, Annamalai University	165	22	7.50
10	Dr. N. Amsaveni, Bharathidasan University	151	22	6.86
11	Prof. Rupak Chakravarty, Panjab University	148	19	7.79
12	Prof. Balabhim Biradar, Kuvempu University	145	34	4.26
13	Prof. Parthasarathi Mukhopadhyay, University of Kalyani	144	23	6.26
14	Prof. B.D. Kumbar, Karnatak University	142	40	3.55
15	Dr. Gururaj Hadagali, Karnatak University	141	19	7.42
16	Prof. Balasubramani R, Bharathidasan University	136	20	6.80
17	Prof. Shabir Ahmad Ganaie, University of Kashmir	131	19	6.89
18	Prof. KP Singh, University of Delhi	122	44	2.77
19	Prof. Chennupati K. Ramaiah, Pondicherry University	116	36	3.22
20	Prof. Chandrashekara M, University of Mysore	112	20	5.60

Kumar Verma emerges as the top LIS educator in terms of annual output, averaging 20.68 publications per year. This metric underscores Prof. Verma's rapid research productivity, highlighting his considerable influence on contemporary LIS scholarship. Such a high annual output suggests a vigorous research agenda and positions Prof. Verma as a leading contributor to current LIS discourse.

Additional educators with high annual publication rates include Dr. M. Surulinathi (11.15 publications per year) and Prof. Thanuskodi S (11.07 publications per year). Their outputs, relative to their career spans, reflect intensive research engagement and amplify their academic presence in Indian LIS scholarship. Prof. Manoj Kumar Sinha, while leading in total publications, maintains an average productivity rate of 8.13 publications per year, demonstrating a sustained yet steady output over his extensive career.

6.1.1.2 Lifetime Contributions: High Total Publications in LIS

When analysing lifetime productivity, Prof. Manoj Kumar Verma ranks as the most prolific LIS educator with a total of 331 publications across a 16-year career. This figure reflects significant and sustained research engagement, positioning Prof. Verma as a distinguished contributor within the LIS field. His career-long dedication exemplifies a model of academic productivity, with a trajectory that establishes him as a leading voice in contemporary LIS scholarship.

Following Prof. Verma closely is Prof. Manoj Kumar Sinha, who, over a 39-year career, has produced an impressive 317 publications. Prof. Sinha's high output over a more extended career highlights his enduring contribution to LIS scholarship and positions him as a senior leader in the field.

Other scholars with notable lifetime publication counts include Prof. Mallinath Kumbar (263 publications over 34 years) and Prof. Ranganathan C (229 publications over 25 years), both of whom demonstrate sustained contributions to LIS research over multiple decades. Their consistent output reflects a long-term commitment to the field, aligning them as established voices in Indian LIS academia.

6.1.1.3 Balanced Profiles: Moderate Annual Output with Steady Contributions

A subset of educators displays a balanced approach to productivity, showing moderate publication rates that reflect a steady research presence. Prof. B. D. Kumbar, with a total of 142 publications over 40 years, represents this balanced profile, averaging 3.55 publications annually. Similarly, Prof. Harinarayana N.S. (4.89 publications per year over 35 years) and Prof. Sadik Batcha M (7.50 publications per year over 22 years) exemplify moderate annual outputs that have allowed them to make consistent contributions to the LIS field.

6.1.1.4 Long-Term Consistency: Incremental Yet Sustained Contributions

Lastly, certain educators demonstrate productivity profiles characterised by gradual, steady outputs sustained over long academic careers. For instance, Prof. KP Singh (2.77 publications per year over 44 years) and Prof. Chennupati K. Ramaiah (3.22 publications per year over 36 years) represent profiles of long-term commitment to LIS. Their consistent yet incremental publication rates underscore a focus on enduring scholarly contributions that reinforce the foundations of LIS research in India.

6.1.2 LIS Educators Receiving the Highest Citations Based on Google Scholar (GS)

In order to gain insights into the impact of individual educators in the field of Library and Information Science (LIS), the table below ranks the top 20 LIS educators in India according to their citation metrics as indexed by Google Scholar (GS). This analysis provides a comparative view of each educator's influence, drawing on three key metrics: total citations, average citations per year, and average citations per paper. Together, these figures illustrate the depth and breadth of each educator's scholarly contributions and highlight their academic prominence within the LIS community.

6.1.2.1 Total Citations

Total citations reflect the cumulative reach and academic recognition of each educator's work. Educators with the highest citation counts, such as Prof. Thanuskodi S (2,703 citations), Prof. Madhusudhan Margam (2,402 citations), and Prof. Manoj Kumar Verma (1,698 citations), hold prominent positions in the field. These figures demonstrate the high visibility and frequent referencing of their research, underscoring its relevance and utility to LIS scholars and practitioners.

6.1.2.2 Citations Per Year

This metric reveals the average annual influence of each educator's work, thus providing a perspective on their sustained impact over time. Prof. Thanuskodi S (180.2 citations per year) leads with the highest citations per year, suggesting that his research has not only gained significant attention but continues to be highly relevant. Other educators, such as Prof. Madhusudhan Margam (114.38 citations per year) and Prof. Manoj Kumar Verma (106.12 citations per year), also exhibit high annual citation averages, indicating consistent contributions that have maintained academic visibility. High annual citation counts are often associated with research that remains relevant across multiple years, indicating that these educators produce work that is integral to ongoing LIS discussions.

6.1.2.3 Citations Per Paper

This measure calculates the average number of citations each publication has received, offering insights into the influence of individual papers. Educators such as Prof. Preeti

Mahajan (17.58 citations per paper) and Prof. Thanuskodi S (16.28 citations per paper) have the highest averages in this category. This suggests that each of their publications makes a significant impact, emphasising their ability to produce research that resonates strongly within the LIS field. Additionally, Dr. Biswanath Dutta (14.39 citations per paper) ranks highly in this metric, indicating that while his overall publication count may be more modest, his individual works achieve substantial scholarly engagement.

6.1.3 Top LIS Educators Based on h-index, g-index, i10-index, and m-index

This section examines the top 20 Library and Information Science (LIS) educators in India, using four key metrics: the h-index, g-index, i10-index, and m-index. These indices provide a comprehensive view of academic productivity and impact, offering insights into the citation influence, research productivity, and career-adjusted impact of each educator. The results reflect diverse scholarly contributions and help to elucidate each educator's standing within the LIS field.

6.1.3.1 Educators with High h-index Scores

The h-index evaluates the volume and impact of an educator's publications, with a high h-index indicating a substantial number of consistently cited works. At the top of this category, Prof. Thanuskodi S boasts an h-index of 26, demonstrating a strong record of highly cited publications that establish him as an influential figure in LIS. Following him, Prof. Madhusudhan Margam has an h-index of 23, underscoring his significant research impact.

Additionally, both Prof. Manoj Kumar Verma and Dr. Biswanath Dutta have an h-index of 21, reflecting solid citation counts across their publications. This ranking places them among the leading contributors in Indian LIS, with works that are frequently referenced in scholarly discussions.

6.1.3.2 Analysis of g-index Leaders

The g-index gives more weight to the most-cited publications, thereby emphasising the influence of high-impact works. Here again, Prof. Thanuskodi S leads with a g-index of 48, highlighting the extensive citation of his top publications. Prof. Madhusudhan Margam follows closely with a g-index of 46, indicating the substantial influence of his highly cited contributions.

Other notable scholars in this category include Prof. Manoj Kumar Verma (g-index of 30) and Dr. Biswanath Dutta (g-index of 36), both of whom show high citation counts for their most influential publications. Prof. Sumeer Gul and Prof. Chennupati K. Ramaiah, with g-indices of 34 and 33 respectively, also demonstrate strong research influence, signifying their roles as authoritative voices within LIS.

6.1.3.3 Examination of m-index Scores for Career-Adjusted Impact

The m-index adjusts for career length by normalising the h-index over the number of years since an educator's first publication. This metric allows for a fair comparison of productivity across varying career spans. Prof. Thanuskodi S once again leads with an m-index of 1.73, reflecting

Table 2. LIS educators receiving the highest citations

Rank	Author	Citations	Cites year	Cites paper
1	Prof. Thanuskodi S	2703	180.2	16.28
2	Prof. Madhusudhan Margam	2402	114.38	11.66
3	Prof Manoj Kumar Verma	1698	106.12	5.28
4	Dr Biswanath Dutta	1439	71.95	14.39
5	Prof. Chennupati K. Ramaiah	1355	37.64	11.68
6	Prof. Sumeer Gul	1342	83.88	12.78
7	Prof. Preeti Mahajan	1283	67.53	17.58
8	Prof. Balabhim Biradar	1089	32.03	7.51
9	Prof. B.D. Kumbar	1040	26.00	7.32
10	Prof. Harinarayana N.S.	932	26.63	5.45
11	Dr R. Jeyshankar	929	61.93	9.78
12	Prof. Manoj Kumar Singha	917	23.51	2.89
13	Prof. KP Singh	890	20.23	7.3
14	Prof. Sadik Batcha M	838	38.09	5.08
15	Prof. Parthasarathi Mukhopadhyay	838	36.43	5.82
16	Prof. Rupak Chakravarty	782	41.16	5.28
17	Prof. Mallinath Kumbar	660	19.41	2.51
18	Prof. Chandrashekara M	654	32.7	5.84
19	Prof. Balasubramani R	626	31.3	4.6
20	Prof. Kunwar Singh	582	17.12	7.46

Table 3. Top LIS educators based on h-index, g-index, i10-index, and m-index

S. No.	Author	h- index	m-index	g-index	i10-index
1	Prof. Thanuskodi S	26	1.73	48	58
2	Prof. Madhusudhan Margan	23	1.09	46	43
3	Prof. Manoj Kumar Verma	21	1.31	30	54
4	Dr. Biswanath Dutta	21	1.31	30	54
5	Prof. Sumeer Gul	20	1.25	34	35
6	Prof.Preeti Mahajan	19	1.00	33	34
7	Prof. Chennupati K. Ramaiah	19	0.53	33	37
8	Prof.B.D. Kumbar	18	0.45	26	33
9	Prof. Balasubramani R	16	0.80	22	21
10	Prof. Sadik Batcha M	16	0.73	24	25
11	Prof. Manoj Kuma Singha	16	0.41	22	32
12	Prof. KP Singh	16	0.36	28	22
13	Prof. Rupak Chakravarty	15	0.79	24	24
14	Prof. Parthasarathi Mukhopadhyay	15	0.65	23	26
15	Prof. Balabhim Biradar	15	0.44	28	29
16	Dr. R. Jeyshankar	14	0.93	26	22
17	Prof. Bulu Maharana	14	0.52	22	15
18	Prof. Mallinath Kumbar	14	0.41	22	21
19	Prof. Shabir Ahmad Ganaie	13	0.68	19	17
20	Prof. Natarajan Radhakrishnan	13	0.65	18	21
21	Prof. Kunwar Singh	13	0.38	20	18

a high citation rate relative to his 15-year career, which speaks to sustained academic influence.

Prof. Manoj Kumar Verma, with an m-index of 1.31, also stands out for his consistent impact over his 16-year career, positioning him as one of the most impactful researchers relative to time in the field. Prof. Sumeer Gul (1.25) and Prof. Madhusudhan Margam (1.09) further demonstrate significant academic influence, while Dr. R. Jeyshankar (0.93) and Prof. Preeti Mahajan (1.00) reflect high productivity in her career, signifying emerging prominence.

6.1.3.4 Insights from i10-index Scores

The i10-index measures the number of publications with at least 10 citations, providing a metric for consistent impact. Prof. Thanuskodi S leads with an i10-index of 58, showcasing the high citation frequency of his publications. Prof. Manoj Kumar Verma, with an i10-index of 54, demonstrates a considerable volume of impactful research over a condensed career span, reinforcing his high citation influence.

These findings contribute to a nuanced understanding of academic influence and productivity among top LIS educators in India, underscoring both the breadth of their research contributions and the depth of their scholarly impact. This metric-driven evaluation thus offers a clearer perspective on the diverse and significant roles these educators play in advancing the field of Library and Information Science.

6.2 Collaborative Authorship of Indian LIS Educators

The collaborative strength and research visibility of India's top Library and Information Science (LIS) educators are valuable indicators of academic influence and connectivity within the LIS community. To explore these aspects, VOSviewer software was used to construct a co-authorship table based on data from Google Scholar

Collaboration patterns in Indian LIS research reveal diverse approaches that drive academic impact. Central figures like Prof. Verma, MK, and Prof. Sinha, MK exemplify different styles: Prof. Verma's dynamic and extensive collaborations in recent years enhance cross-disciplinary knowledge exchange, while Prof. Sinha's foundational contributions, primarily from earlier years, have shaped specific research networks. Mid-level prolific authors, such as Dr. Surulinathi, M, with a high link strength of 356, demonstrate the power of strategic, highly collaborative efforts in enhancing visibility, while Prof. Kumbar, M's more focused collaborations emphasize depth. Specialised networks, led by authors like Prof. Ranganathan, C, and Prof. Balasubramani, R, highlight niche contributions with significant subfield impact. High link strength within smaller networks, seen in authors like Prof. Hadagali, GS (227), showcases the value of quality-focused collaborations. Meanwhile, selective contributors like Prof. Singh, KP, and Prof. Ramaiah, CK, make notable impacts through targeted, specialised efforts. Together, these patterns reveal the nuanced

interplay between broad and focused collaborations in shaping the LIS research landscape and advancing its academic influence.

6.3 Top 20 Highly Cited Publications

This table enlisted the top 20 cited publications authored by Indian scholars in Library and Information Science (LIS) as indexed in Google Scholar, focusing on their total citation counts and citation rates per year (Cites/Year). By evaluating both cumulative citations and annual impact, we gain insight into the sustained and emerging influence of these works on the LIS domain.

6.3.1 Overview of High-Impact Publications

The top 20 most-cited publications by Indian LIS (Library and Information Science) educators highlight significant contributions to bibliometrics, scientometrics, and the integration of digital technologies in libraries. These publications span diverse areas like Web technologies, electronic resources usage, bibliometric studies, and artificial intelligence applications. Notable examples include studies on Web 2.0 and Web 3.0 (334 citations) by Shivalingaiah and Naik, mapping intellectual structures of scientometrics (321 citations) by Ravikumar *et al.,* and advantages of artificial intelligence in library science (276 citations) by Khanzode and Sarode. These works showcase the adaptability of LIS research to emerging trends and their implications for digital libraries.

6.3.2 Notable Annual Citation Rates

High annual citation rates indicate the enduring relevance of these studies. For instance, Khanzode and Sarode's 2020 study on AI and ML exhibits the highest citation rate of 69 per year, reflecting the growing interest in AI applications in LIS. Similarly, Ravikumar *et al.*'s co-word analysis of "Scientometrics" journal (2015) maintains a robust annual rate of 35.7, emphasising the importance of bibliometric mapping. These rates showcase the alignment of LIS research with contemporary scholarly interests and technological advancements.

6.3.3 Influence of Foundational Studies

Foundational works like Ali's 2005 study on electronic resources usage at IIT Delhi Library (254 citations) laid the groundwork for understanding user behavior in digital environments. Similarly, Madhusudhan's research on the use of UGC-Infonet e-journals (187 citations, 2008) provides critical insights into the early adoption of digital resources by Indian academic communities. These studies are foundational as they continue to be referenced in subsequent research exploring digital resources and user engagement in LIS.

6.3.4 On Digital Resources and Technological Integration

The publications underscore a persistent focus on digital resource adoption and technology integration in library services. Madhusudhan's studies on electronic resources and social networking (208 citations, 2012) explore how scholars leverage emerging platforms for academic purposes. Similarly, Harinarayana and Raju's analysis of Web 2.0 features in university library websites (303 citations, 2010) reveals the shift towards participatory and user-centric library services. These contributions highlight the role of digital tools in transforming traditional library operations into dynamic, tech-enabled systems.

6.4 Key Terms in Library and Information Science (LIS) Research in India with Occurrences and Relevance Scores

This table provides valuable insights into the focal points of LIS research in India. By analysing both the frequency

Table 4. Top authors in library and information science-publication and co-authorship link strength

S. No.	Author	Total documents	Co-author documents	Link strength
1	Sinha, MK	317	272	233
2	Verma, MK	331	271	385
3	Kumbar, M	263	249	130
4	Surulinathi, M	223	193	356
5	Ranganathan, C	229	211	104
6	Madhusudhan, M	206	193	158
7	Balasubramani, R	136	131	191
8	Harinarayana, NS	171	168	181
9	Hadagali, GS	141	136	227
10	Thanuskodi, S	166	161	97
11	Amsaveni, N	151	122	200
12	Kumbar, BD	142	100	180
13	Mukhopadhyay, P	144	140	143
14	Biradar, Bs	145	134	163
15	Chakravarty, R	148	133	163

Table 5. Top 20 cited publications by indian LIS educators

Cites	Authors	Title	Year	Source	Type	Cites/Year
334	D Shivalingaiah, U Naik	Comparative study of web 1.0, web 2.0 and web 3.0	2008	INFLIBNET Center	Journal article	20.9
321	S Ravikumar, A Agrahari, SN Singh	Mapping the intellectual structure of scientometrics: A co-word analysis of the journal Scientometrics (2005–2010)	2015	Scientometrics	Journal article	35.7
303	NS Harinarayana, NV Raju	Web 2.0 features in university library web sites	2010	The electronic library	Journal article	21.6
276	KCA Khanzode, RD Sarode	Advantages and disadvantages of artificial intelligence and machine learning: A literature review	2020	International jJournal of library & information science (IJLIS)	Journal article	69
267	RN Vasantha, NS Harinarayana	Online survey tools: A case study of Google Forms	2016	National Conference on" Scientific, Computational &Information Research	Conference paper	33.4
256	M Madhusudhan	Use of electronic resources by research scholars of Kurukshetra University	2010	The electronic library	Journal article	18.3
254	N Ali	The use of electronic resources at IIT Delhi Library: a study of search behaviours	2005	The electronic library	Journal article	13.4
233	S Thanuskodi	Journal of Social Sciences: A bibliometric study	2010	Journal of social sciences	Journal article	16.6
208	M Madhusudhan	Use of social networking sites by research scholars of the University of Delhi: A study	2012	The international information & library review	Journal article	17.3
200	P Mahajan	Use of social networking in a linguistically and culturally rich India	2009	The international information & library review	Journal article	13.3
187	M Madhusudhan	Use of UGC-Infonet e-journals by research scholars and students of the University of Delhi, Delhi: A study: Technology around the world: eight countries, shared problems	2008	Library hi tech	Journal article	11.7
183	S Haridasan, M Khan	Impact and use of e-resources by social scientists in National Social Science Documentation Centre (NASSDOC), India	2009	The electronic library	Journal article	12.2
176	BTS Kumar, GT Kumar	Perception and usage of e-resources and the internet by Indian academics	2010	The electronic library	Journal article	12.6

173	S Thanuskodi	Use of E-resources by the Students and Researchers of Faculty of Arts, Annamalai University	2012	International journal of library science	Journal article	14.4
168	CL Liew, S Foo, KR Chennupati	A study of graduate student end-users' use and perception of electronic journals	2000	Online information review	Journal article	7
161	M Haneefa	Application of information and communication technologies in special libraries in Kerala (India)	2007	Library review	Journal article	9.47
159	M Madhusudhan	Marketing of library and information services and products in university libraries: a case study of Goa university library	2008	Library philosophy and practice	Journal article	9.94
151	S Thanuskodi	Library Herald Journal: a bibliometric study	2011	Researchers world	Journal article	11.6
137	BTS Kumar, BS Biradar	Use of ICT in college libraries in Karnataka, India: a survey	2010	Program	Journal article	9.78
105	F Giunchiglia, B Dutta, V Maltese	Faceted Lightweight Ontologies, Conceptual Modeling: Foundations and Applications: Essays in Honor of John Mylopoulos	2009		Book	7

Table 6. Mostly used terms in Indian LIS research

Rank	Term	Occurrences	Relevance score
1	Scientometric analysis	271	0.7719
2	Literature	241	0.4034
3	Information science	235	0.271
4	Development	230	0.5511
5	Research output	206	0.8301
6	Scientometric study	204	0.6822
7	Bibliometric study	201	0.5668
8	Bibliometric study	199	0.6191
9	E-resource	155	0.9446
10	Faculty member	138	0.9841
11	Research productivity	138	0.8821
12	Research scholars	129	1.2996
13	Covid	133	0.5259
14	Research scholars	129	1.2996
15	Academic library	124	0.5245
16	Librarian	121	0.6852
17	Mapping	119	0.776
18	Citation analysis	115	1.2267
19	Publication	115	0.4829
20	Electronic resource	113	1.2695

of occurrences and relevance scores of key terms, it is possible to identify emerging trends, prominent areas of focus, and the relative importance of various LIS concepts.

The analysis of frequently occurring terms in Indian LIS research highlights "Scientometric Analysis" (271 occurrences) as the most dominant, reflecting a strong focus on quantitatively assessing scientific publications and their impact. Foundational terms like "Literature" (241) and "Information Science" (235) underscore the theoretical base of LIS, while practical aspects, such as "Development" (230) and "Research Output" (206), emphasize the application and evaluation

of research practices. High relevance scores for terms like "Research Scholars" (1.2996) and "Citation Analysis" (1.2267) point to the centrality of academic productivity and evaluation in the field. Emerging themes, such as "Electronic Resources" and "Digital Libraries," signal the growing influence of digital technologies, while "COVID" research reflects the pandemic's impact on information access. Lesser-discussed but significant areas, like "Institutional Repositories" and "Knowledge Management," highlight specialised contributions to academic information systems. Together, these insights reveal a vibrant interplay of foundational, practical, and emerging themes shaping LIS discourse.

7. DISCUSSION AND CONCLUSION

This study was undertaken to address the absence of a comprehensive national level evaluation of research productivity and visibility among Indian LIS educators. The primary reason for conducting this analysis was to identify measurable trends in scholarly output, which can inform institutional benchmarking, faculty development, and research planning within LIS education.

By analysing Google Scholar profiles through Publish or Perish and VOSviewer, the study highlights distinct performance patterns. For instance, Prof. Manoj Kumar Verma's high publication count and Prof. Thanuskodi S's superior citation metrics reflect different models of academic influence-one rooted in productivity, the other in impactful scholarship. Such insights are vital for academic managers aiming to foster balanced growth among faculty by encouraging both quantity and quality in research contributions.

The findings have practical implications for managerial practices in LIS institutions. They offer a basis for setting research expectations, designing incentive structures, and identifying mentorship opportunities by spotlighting high performing educators and emerging scholars. The coauthorship and keyword mapping also reveal active collaboration and evolving thematic interests, such as scientometric analysis and digital libraries, suggesting that LIS curricula should increasingly align with data centric and interdisciplinary research approaches.

In terms of theoretical contribution, this study demonstrates how integrated bibliometric tools can be used to evaluate academic impact at scale. It also proposes a replicable model for nationwide performance assessment, bridging gaps in existing LIS research evaluation frameworks.

Overall, the study contributes actionable insights for strengthening LIS education in India through evidence based policy, strategic faculty development, and curriculum innovation, thereby enhancing both academic excellence and institutional reputation.

REFERENCES

1. Aalst J. Using Google scholar to estimate the impact of journal articles in education. Educ Res. 2010;39(5):387-400. doi: 10.3102/0013189x10371120
2. Ahmad K, Sheikh A, Rafi M. Scholarly research in library and information science: An analysis based on ISI web of science. Perf Meas Metrics. 2019;21(1):18-32. doi: 10.1108/pmm-06-2019-0024
3. Ali M, Richardson J. Pakistani LIS scholars' altmetrics in research gate. Prog Electron Libr Inf Syst. 2017;51(2):152–169. doi: 10.1108/prog-07-2016-0052
4. Ali M, Richardson J. Google scholar citation metrics of Pakistani LIS scholars: An overview. Glob Knowl Mem Commun. 2019;68(4/5):392–412. doi: 10.1108/gkmc-03-2018-0025
5. Harinarayana NS, Raju NV. Citation analysis of publications of LIS teachers in South India. Inf Stud. 2012.
6. Jain P. Delivery of library and information science curriculum. Libr Rev. 2017;66(6/7):482–504. doi: 10.1108/lr-12-2016-0109
7. Lohia P, Prakash H. Research online visibility of LIS faculties at central universities in North India. DESIDOC J Libr Inf Technol. 2023;42(6):414–419. doi:10.14429/djlit.42.6.18467
8. Martín-Martín A, Orduña-Malea E, Thelwall M, López-Cózar E. Google scholar, web of science, and scopus: A systematic comparison of citations in 252 subject categories. J Informetrics. 2018;12(4):1160–1177. doi: 10.1016/j.joi.2018.09.002
9. Muthumani M, Chinnasamy K. Enhancing role and impact of librarians in research output through internet tools: A case study based on google scholar profiles of engineering colleges in and around Madurai. Asian J Inf Sci Technol. 2019;9(S1):218. doi: 10.51983/AJIST-2019.9.S1.218
10. Nazim M. An investigation of open access availability of library and information science research. DESIDOC J Libr Inf Technol. 2023. doi: 10.14429/djlit.43.02.18580
11. Onyancha O. Mapping collaboration and impact of library and information science research in sub-Saharan Africa, from 1995 to 2016. Libr Manage. 2018;39(6/7):349–363. doi: 10.1108/lm-06-2017-0059
12. Ortega J, Aguillo I. Institutional and country collaboration in an online service of scientific profiles: Google scholar citations. J Informetrics. 2013;7(2):394–403. doi: 10.1016/j.joi.2012.12.007
13. Saberi M, Ekhtiyari F. Usage, captures, mentions, social media and citations of LIS highly cited papers: An altmetrics study. Perf Meas Metrics. 2019;20(1):37–47. doi: 10.1108/pmm-10-2018-0025
14. Google Scholar. About google Sscholar. Mountain view (CA): Google; [cited 2025 May 15]. https://scholar.google.co.in/intl/en/scholar/about.html

CONTRIBUTORS

Mr. Subham Giri is currently serving as an Assistant Librarian at the LNM Institute of Information Technology (Deemed to be University), Jaipur. He holds a 5-year Integrated MLIS degree (2012–2017) from the University of Calcutta, specialising in

digital preservation. He is also pursuing a PhD at Panjab University, Chandigarh, with a research focus on Google Scholar. His research interests include Scientometrics, Bio-bibliometrics, Research productivity analysis, and Academic databases.
In this study, he was responsible for conceptualising the research, data collection, analysis, and manuscript writing.

Prof. Rupak Chakravarty is serving his second term as Chairperson of the Department of Library and Information Science, Panjab University, with over 23 years of professional experience, including 17 years in teaching. He previously coordinated the Department Alumni Association, Placement Cell, and IAQC for three years. He is the Course-Coordinator and Academic Counsellor for CDOE, Panjab University, and an Academic Counsellor for Open Learning, Delhi University, and IGNOU. His expertise spans AI tools in research, Open Access, Creative commons, Library technologies, Academic integrity, Research data management, Reference management, OERs, Research mapping, and Data visualisations.
In this study, he provided research supervision, methodological guidance, and critical revisions.