

# Scholarly Publication in Library and Information Science in India: A Citation Analysis of International LIS Journals

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## **Abstract**

*The main purpose of the study is to determine the trend of library and information science (LIS) scholarly publication in international LIS journals by Indian authors and also intends to find out the authorship pattern, collaborative nature, research distribution, etc. as no such scholarly paper has been studied the evaluation of India's LIS literature in international LIS journals. Citation analysis was done to study the 353 literatures in library and information science contributed by the Indian authors. The citations were taken from SCOPUS, Current Awareness Abstract-Library and Information Management and Emerald Management Review databases during the period 2001 to 2010. The bibliographic data were tabulated and classified with the help of Microsoft Excel for necessary analysis. This paper highlights the pattern and orientation of LIS literatures authored by Indian authors. The findings show how and in which manner the Indian authors are contributed to the international LIS literature and also compare the national level consequences. This paper senses the importance of Indian LIS research, as well as researcher involved in citation analysis. The study is an original research work with citation analysis of scholarly publication of LIS literatures by Indian authors in international LIS journals. The finding will have practical implication for researcher, different agencies in different areas of library information science.*

**Keywords:** Library and Information Science, Citation Analysis, Research, Bibliometrics, India

## **1. Introduction**

Researches in Library and Information Science (LIS) provide a theoretical foundation to professional practice. In recent times, however, the root of research in LIS does not appear to be very satisfactory. With the passage of time, the pace of library research is picking up due to social pressure as well as inspiration (Satija, 1999). The beginning of formal research in LIS is usually attributed to the work of Douglas Waples and his colleagues in the Graduate School of Librarian founded in the University of Chicago in 1929. The key objective of the school has been to establish the scholarly legitimacy of LIS re-

search and promoting scholarly publication in the field and developing more professional literature (Feather, 2009). In the Indian context, the primary work of S R Ranganathan is associated with contextualizing researches in the said area (Satija, 1997).

In the last few decades, LIS research has been actively pursued in India and a good number of research results are reported in national and international publications. To study the trends of LIS research, one has to differentiate between research and professional publications. After that, it is possible to develop a content analysis scheme for the subfields of LIS and other features of research (Rochester and Vakkari, 2003). A citation analysis not only indicates its qualitative measure but so indicates the development of its trend in the fields of LIS publications. On the other hand



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Javeelin and Vakkeri (1990) suggest that LIS apparent by referring the core journals of LIS. What is published in these journals indicate the domain of LIS. Therefore, the present study covers the core international LIS journals for the present investigation. In this age of information and communication technology, the facility to access international journals has increased rapidly and has led to a significant shift of publication by Indian author from national to international peer-reviewed journals. This paper measures the growth and pattern of scholarly LIS literature publication in international LIS journals during the period 2001 to 2010. The empirical results discussed in this paper demonstrate the recent improvement in international publishing method and pattern of Indian LIS literatures and obligate the present study toward a direction on future research activities.

## 2. Objective of the Study

The basic objective of the study is to investigate the status and development of scholarly publications in the field of library and information science in India. This study will explicate the international profile and global research productivity of India in library and information science, and will answer the following questions:

Q2.1. What is the pattern of growth of LIS scholarly publication from India during the period 2001 to 2010?

Q2.2. What is the preferred form of publication where Indian authors publish their work?

Q2.3. What is the authorship pattern, and collaborative research pattern at regional, national and international level?

Q2.4. What are the preferred journals in terms of LIS scholarly publication by Indian authors during the period 2001 to 2010?

## 3. Scope and Limitation of the Study

The present study covers LIS literatures published from 2001 to 2010 by Indian authors. It takes into account three databases, namely, SCOPUS- provided by Elsevier, and Current Awareness Abstract-Library and Information Management and Emerald Management Review- provided by Emerald Group.

The study takes into its purview LIS publications by Indian authors indexed in the said databases and they are subject coverage of the broad period between 2001 to 2010. After the assemblage of the three databases, journals that don't cover the whole period of the study, i.e., from 2001 to 2010, do not come under the purview of the analysis. This remains a major limitation of the present study.

## 4. Literature Review

A good number of studies have been carried out in different times on the citation analysis of LIS research in several countries, but few numbers of professional literatures have documented the early study on progress and development of scholarly publication in library and information science in India.

Patra and Chaand (2006) explore that according to LISA database, the contribution of Indian authors at international level is very low and LIS research output in India is chiefly published in Indian journals. Chikate and Patil (2008) investigate a citation analysis of theses of LIS submitted to University of Pune where more than 6,000 citations from 27 doctoral dissertations were analysed; the research shows that nearly half of the citations, 42.2 percent recorded are from journal articles. Chandrashekara and Ramasesh (2009) study the perspective of the re-

search activities in library and information science in Indian universities. Their study reveals that a good number of Ph.D. theses were produced in the field of bibliometrics, scientometrics, informatics, library management, university libraries, indexing system, information seeking behaviour, and library and information services. Davarpanan and Aslekia (2008) investigate 56 LIS international journals having 894 contributions and ascertain that about half of the library scientists prefer to contribute their paper individually. They argue that collaboration is a critical component of research in the said discipline. Mukherjee (2010) quantitatively analyses Asian scholarly research in library and information science during the period 2001 - 2007 and shows that Asia's LIS research has a pattern of joint authorship. Wang (2011) studies the pattern and trends of papers by Chinese authors and makes an international comparison between China and other major Asian countries such as India, Japan and Korea in terms of output in library and information science research. Wani, Bakshi and Gul (2008) study a country-wise growth and development of library literatures, and notice as per the geographical distribution in Asia, India takes the lead with 12 publications, which account for 1.50 percent of the total.

## 5. Methodology

The citations for the study have been collected from SCOPUS database from Elsevier, and Current Awareness Abstract- Library and Information Management and Emerald Management Review databases of Emerald Group during the period 2001 to 2010. First of all 41 core LIS journals are identified by several study subjects with a period coverage from 2001 to 2010 (shown in Table-5). The citations are collected from these databases by advance search facility limiting the date range to period between

the year 2001 to 2010, and affiliation of the author to India. And after scrutinise, 353 citations have been selected for the present study focusing on Indian contribution to the field of LIS studies. All refined data are tabulated, classified in Microsoft Excel for necessary analysis.

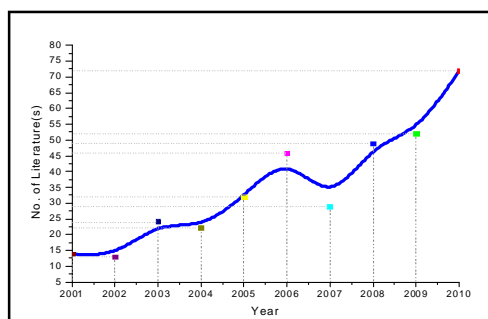
## 6. Data Analysis and Discussion

### 6.1 Growth and Development of LIS Literature in India:

The characteristics of literature of any subject can be related to their rate of growth, and the growth rate can be analysed by studying year-wise distribution of literatures. Table-1 shows the rate of growth and development of LIS literatures during the period 2001 to 2010. A total number of 353 literatures are published by the Indian LIS researcher during the period. The exponential growth of literature can be noticed by the Figure-1. The course of growth is slightly diminished in 2004 and in 2007. In the year 2007 only 29 (8.21 percent) number of literatures are contributed where as in the year 2006 and 2008 there are 46 (13.03 percent) and 49 (13.9 percent) number of literatures contributed respectively. The highest number of contribution is visible in the year 2010, i.e., 72 (20.4 percent) followed by 52 (14.73 percent) in the year 2009. The progressive trend is visible in the year 2008 with a total number of 49 publications, i.e., (13.9 percent). It indicates, in principle, the development of research oriented publications in international LIS journals in the recent years. Notwithstanding its limitations in the years in 2004 and 2007, the publications of other years show an increasing trend in the field of LIS publications. Moreover, the publications in the year 2008 also indicate similar platform that Indian authors of LIS studies have contributed towards a new progressive trend.

**Table -1: Year wise distribution of LIS literature (2001-2010)**

Year	No. of literatures (n=353)	Percentage
2010	72	20.4
2009	52	14.73
2008	49	13.9
2007	29	8.21
2006	46	13.03
2005	32	9.06
2004	22	6.23
2003	24	6.8
2002	13	3.68
2001	14	3.96
Total:	353	100

**Figure 1: Growth of LIS literature in India****6.2 Pattern of Publication in Various Forms:**

Contributions in the form of journal articles remain central to the publishing scenario in Indian contribution to LIS studies. Table-2 and its associated Figure-2 indicate that the most preferred form of publication is journal articles. It does not mean however that other forms such as review articles, conference

papers, notes and short surveys hardly ever have been a platform for publications. Their occurrence is minimal with 12.46 percent of reviews and 2.27 percent of conference papers. Note and short surveys remain the less explored forms in the study period with a minimal of 0.85 and 0.28 percent respectively. Hence, there is an over increasing trend for contribution in the form of journal articles and reviews by the Indian author to international LIS journals.

**Table -2: Pattern of publication in various forms of LIS literature(s) in India**

Form of publication	No. of literature (s)	Percentage
Article	297	84.14
Review	44	12.46
Conference paper	8	2.27
Note	3	0.85
Short survey	1	0.28
Total:	353 (n=353)	100

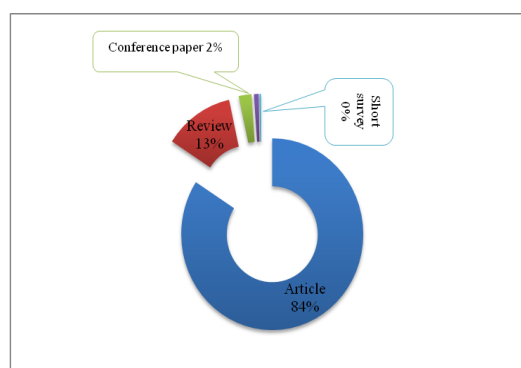
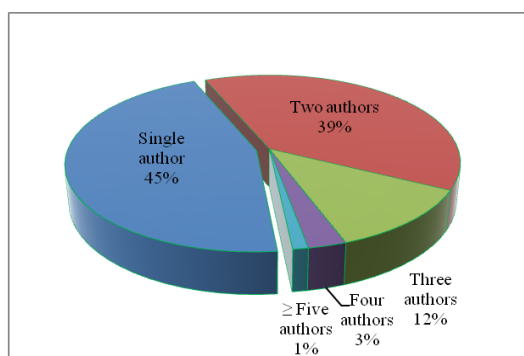
**Figure 2: Pattern of publication in various forms of LIS literature(s) in India****6.3 Authorship Pattern of whole Contributions:**

Table-3 and its associate Figure-3 indicate the authorship pattern to determine the percentage of single and multiple authors. Out of 353 literatures

surveyed, 160 (45.33 percent) remain as single-author contributions, followed by 137 (35.81 percent) contributions by two authors, and about 42 (11.9 percent) are the contributions of three authors. Only 10 (2.83 percent) literatures are the contribution of four authors which is followed by 1.13 percent of five or more than five authors' contributions. The authorship pattern indicates that the single authorship pattern prevails over other types of contributions, but if the distinction is made between single authorship and joint or multiple authorship pattern, then it is remarkable to find out that more than half of the contributions are by joint authorship pattern. It indicates collaborative or team research has been preferred by LIS researchers in India during the period 2001 to 2010. Similarly a previous study by Subramanyam (1984) expresses that Indian LIS publications witness a collaborative form of research.

**Table 3: Authorship pattern**

Authorship pattern	No. of literature(s)	Percentage
Single author	160	45.33
Two authors	137	38.81
Three authors	42	11.9
Four authors	10	2.83
≥ Five authors	4	1.13
Total:	353 (n=353)	100



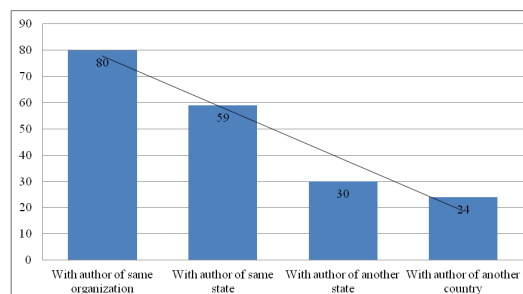
**Figure 3: Authorship pattern**

#### 6.4 Nature of Collaboration

It is visible from Table-3 that the authorship pattern of India's LIS literatures is collaborative in nature and 193 literatures are induced by collaborative work out of total 353 literatures. Table-4 shows the different nature of collaboration, and it is observed that out of total 193 joint authored literatures, the majority of literature, i.e., 80 (41.5 percent) numbers are published by collaboration of same organization (intra-organizational collaboration) followed by 59 (30.6 percent) number of literatures by the author of the same state (intra-state collaboration). About 15.5 percent authors prefer having an inter-state collaboration. Only 24 (12.4 percent) number of literatures are published with the collaboration of authors from a different country. It is observed here that the sliding nature of collaboration, i.e., inward to outward patterns of collaboration, remains a trend. Consequently, we may state here that intra-collaboration is opted over inter-collaboration in term of publication.

**Table 4: Nature of Collaborative Research**

Nature of Collaboration	Count (n=193)	Percentage
With author of same organization	80	41.45
With author of same state	59	30.57
With author of another state	30	15.54
With author of another country	24	12.44
Total:	193	100



**Figure 4: Nature of collaborative research**

### 6.5 Journal wise Distribution of Literature

Table-5 lists the selected 41 international journals where Indian LIS authors intend to publish their research articles. However, there is set of core journals where majority of LIS literatures are published. Figure-5 clearly shows the order of the journals in terms of literature contribution by Indian authors during the period 2001 to 2010. The data reveal that Library Philosophy and Practice is the most preferred journal for Indian authors having a contribution of 22.1 percent. Other preferred journals are Information and Library Review (17 percent), Electronic Library (13.6 percent), Scientometrics (7.08 percent), Program (6.8 percent), Library Review (5.38 percent), Library Hi-Tech News (3.68 percent), Online Information Review (2.55 percent), Library Management, and Interlending and Document Supply 1.7 percent each, Library Hi- Tech (1.42 percent) and D-Lib Magazine (1.13 percent). Rest of the journals have less than one percent of publication.

Note worth to mention here that Library Philosophy and Practice, being an open access journal, publishes the higher number of contributions in Indian LIS studies. Further, the trend may have multiple reasons; first, its open access facilitates the research openly and freely, second, it has less financial constraints and third, it reaches out the contributions from developing countries more easily. S. B. Ghosh and A. K. Das (2007) for instance investigate a similar opinion. They claim that the open access movement makes it possible to the researcher particularly from developing countries to target audience of the world's research communities.

**Table -5: Journal wise distributions of LIS literature(s)**

Name (title) of the Journal	No. of literature(s) (n=353)	Percentage
Aslib Proceedings: New Information Perspectives	3	0.85
Bottom Line: Managing Library Finances	2	0.57
Collection Building	3	0.85
Computers in Libraries	2	0.57
D-Lib Magazine	4	1.13
Education for Information	1	0.28
Electronic Library	48	13.6
Health Information and Libraries Journal	2	0.57
Information Processing and Management	3	0.85
Information Research	1	0.28
Information Services and Use	2	0.57
Information Systems Management	1	0.28
Information Technology and Libraries	2	0.57
Informing Science	1	0.28
Interlending and Document Supply	6	1.7
International Information and Library Review	60	17
International Journal of Information Management	2	0.57
International Journal of Information Technology and Management	1	0.28
Journal of Academic Librarianship	3	0.85
Journal of Advances in Management Research	1	0.28
Journal of Digital Information Management	2	0.57
Journal of Information Science	2	0.57

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Name (title) of the Journal	No. of literature(s) (n=353)	Percentage
Journal of Information Science and Engineering	1	0.28
Knowledge Organization	2	0.57
Library and Information Science Research	3	0.85
Library Collections, Acquisition and Technical Services	2	0.57
Library Hi Tech	5	1.42
Library Hi Tech News	13	3.68
Library Management	6	1.7
Library Philosophy and Practice	78	22.1
Library Review	19	5.38
Libres	2	0.57
Libri	3	0.85
New Library World	2	0.57
OCLC Systems & Services	2	0.57
Online Information Review	9	2.55
Program:electronic library and information systems	24	6.8
Research Evaluation	1	0.28
Scientometrics	25	7.08
Serials Review	2	0.57
World Patent Information	2	0.57

Scholarly Publication in Library and Information...

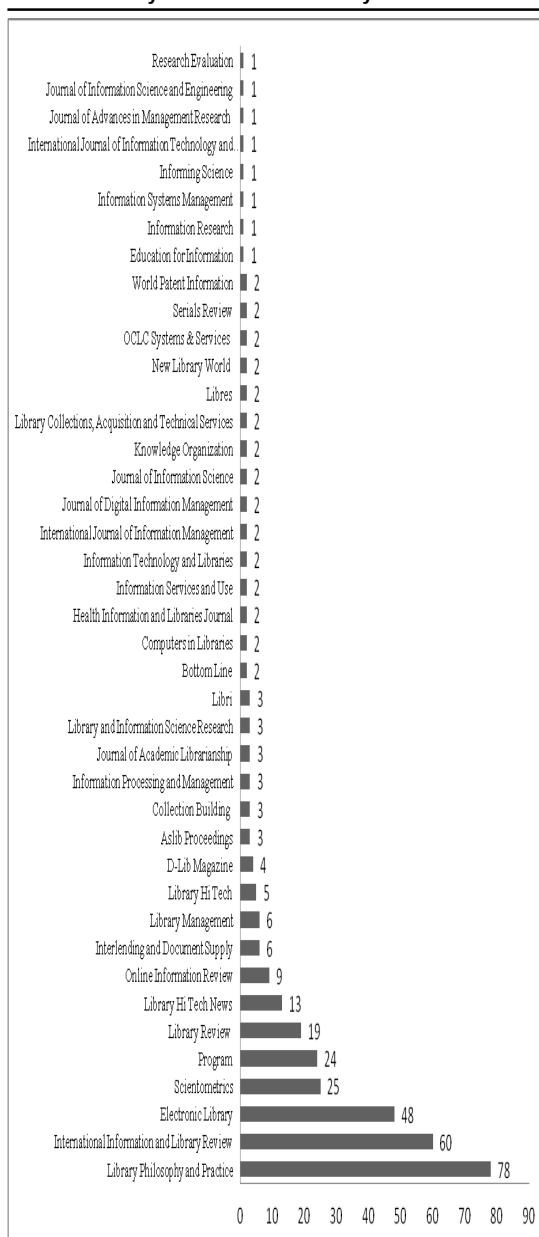


Figure 5: Journal wise distribution of paper(s)

6.6 State wise Distribution of LIS Literatures Contribution

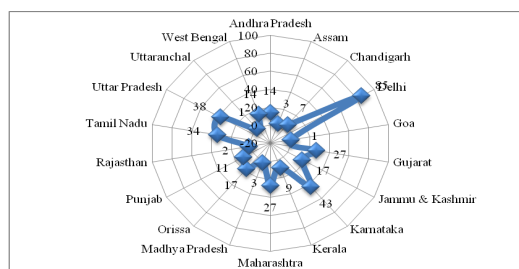
Table-6 shows the share of various Indian states and territories towards the contribution to LIS literatures. The study reveals that 16 out of 28 Indian

states and 2 out of 7 union territories have contributed during the study period. Table-6 and its associated figure present that Delhi is at the top position with the highest 85 (24.08 percent) number of papers, while Karnataka is at the second position with 43 (12.18 percent) papers. Uttar Pradesh remains in the third position with 10.77 percent and Tamil Nadu with 7.63 percent ranks four. Maharashtra and Gujarat have 7.65 percent each and occupy the fifth position. Orissa and Jammu & Kashmir have 17 (4.81 percent) contributions each followed by two states Andhra Pradesh and West Bengal having 14 (3.97 percent) publications. The state Punjab has 3.12 percent followed by Kerala 2.55 percent of contribution. The union territory Chandigarh has around 2 percent contribution, where as other states such as Madhya Pradesh, and Assam, Rajasthan, Uttaranchal and Goa have less than one percent contribution. These data reveal that there is no symmetry in research productivity of Indian states due to uneven distribution of institutions where LIS researchers can get ample scope for research. Almost one fourth of the LIS literatures from India are the contribution of Delhi region because many centralized institutions, documentation centres, information centres and libraries are located there.

**Table 6: State wise distribution of LIS literature contribution**

State	No. of contribution	Percentage
Andhra Pradesh	14	3.97
Assam	3	0.85
Chandigarh (UT)	7	1.98
Delhi (UT)	85	24.08
Goa	1	0.28
Gujarat	27	7.65
Jammu & Kashmir	17	4.81

Karnataka	43	12.18
Kerala	9	2.55
Maharashtra	27	7.65
Madhya Pradesh	3	0.85
Orissa	17	4.81
Punjab	11	3.12
Rajasthan	2	0.57
Tamil Nadu	34	9.63
Uttar Pradesh	38	10.77
Uttaranchal	1	0.28
West Bengal	14	3.97
Total:	(n=353)	100



**Figure 6: State wise distribution of LIS literature(s)**

### 7. Major Findings of the Research

- ▶ The tendency of research oriented publications in international LIS journals by the Indian authors are increasing which indicate, in principle, that the advancement of communication facility encourages Indian authors to publish their papers in international journals.
- ▶ 84.13 percent literatures are contributed in the form of journal articles. This shows that Indian LIS researchers prefer the 'article form' to other forms of research writing.
- ▶ More than half literatures are contributed by collaborative effort of the Indian authors. This indicates research collaboration. If the classification is made by number of authors per paper, it shows



that maximum Indian authors contribute their papers individually.

▶▶ Intra-collaboration is always preferred to inter-collaboration by the Indian researcher in the field of library and information science.

▶▶ Out of the 41 journals having 353 LIS literatures, only seven journals cross more than 10 literatures each. This result shows that there is only a few set of core journals where majority of LIS literatures are published.

▶▶ Delhi remains as the central place, having 24.08 percent publications, which has furthered the growth of LIS research in India.

## 8. Conclusion

Result of the present study exemplifies that over the last few years LIS research activities are growing rapidly in India. The trend has witnessed a rapid growth in citation in various index databases. The trend of the research publications has progressed with the advancement of technology; on the one hand, with open access system the trend has been progressing in LIS fields. On the other hand, several states in the India scenario, with the advancement of technology and by virtue of access to multiple research resources, have contributed significantly. Research facilities in India remain uneven which, in long run, become a major concern. Information professionals who consult the research empower themselves to evaluate and analyse its quality in a critical fashion and ultimately add benefit of enhancing information professionals' appreciation of the research needs of their clients (Turner, 2002). Hence, in the Indian scenario, LIS research activities need constant improvement with contributions from all states and in multiple international journals to meet the global need of the day.

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