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ORIGINAL RESEARCH

# Gender disparity in Indian library and information science journals: An analytical study

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**ABSTRACT**

**Objective.** This study investigates gender disparity in research productivity in Indian Library and Information Science (LIS) journals, focusing on authorship patterns, professional engagement, prolific institutions, and regional productivity.

**Methodology.** We analyzed 2404 articles with 4583 authors from ten selected Indian LIS journals (2014–2023). Author details, including gender, institutional affiliation, and authorship roles, were collected from biographical notes and recorded in Excel sheets. The analysis involved descriptive statistics and inferential tests (Chi-square tests and correlation analysis) using SPSS software.

**Findings**. The study revealed a significant gender disparity in Indian LIS research, with male authors representing 71.81% of contributions and dominating first authorship roles (69.3%). Collaborative authorship patterns were also male-dominated, with male-only and male-majority teams prevailing. Faculty members of the University of Delhi and Aligarh Muslim University emerged as the top contributors. Female representation was more visible among research scholars in the KELPRO journal, which showed a balanced gender representation. Regional analyses showed that contributions from New Delhi, West Bengal, and Karnataka were the highest, with minimal representation from states such as Sikkim and Nagaland

**Conclusions.** This study highlights the persistence of gender disparity in Indian LIS scholarship and provides valuable insights into authorship dynamics, institutional productivity, and regional representation. These findings offer actionable recommendations for fostering inclusivity and gender equity in Indian LIS research.

**Keywords:** research productivity; gender disparity; academic engagement; authorship patterns; Indian Library and Information Science journals.

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## 1. INTRODUCTION

In recent years, research has become essential in the development of any nation, and now it has been under continuous pressure to become more relevant to society (Nightingale & Scott, 2007). It endows a discipline with the ability to utilize the knowledge generated in other disciplines. In other words, research refers to systematic investigations to establish facts and reach new conclusions (Mittal, 2011). To strengthen Indian Library and Information Science (LIS) research, it is necessary to know the areas of research currently being focused on and identify emerging research areas. There are several ways to identify core LIS research areas. In recent years, few studies have focused on the research productivity in LIS literature (Siddique *et al.,* 2020; Islam & Roy, 2021; Zhao *et al.,* 2021; Singson *et al.,* 2024). Rana (2011) stated that LIS research has emerged as a vital dimension in India to meet the challenges of finding suitable solutions and exploring new frontiers. Gender continues to be an obstacle, especially for females, in academic fields that have traditionally been male-dominated (van Arensbergen *et al.,* 2012). This long-standing gender difference in research has led to females contributing less frequently to academic work than males (Schroen *et al.,* 2004).

Studies have found that men have higher productivity and have more peer-reviewed publications (Holliday *et al.,* 2014; Burden *et al.,* 2015). The study investigated the extent and causes of gender disparity in Indian LIS journals, seeking to understand research productivity, authorship patterns, professional engagement, prolific institutions, and states.

### 1.1. Review of literature

There exists a plethora of literature on gender disparity published in international journals (Gul *et al.,* 2016; Mayer & Rathmann, 2018; Bendels *et al.,* 2018; Aksnes *et al.,* 2019; Esslinger *et al.,* 2020; Abramo *et al.,* 2021; Kwiek & Roszka, 2021; Lund & Shamsi, 2023; Shah *et al.,* 2023). However, very few studies have been found in Indian journals (Bisaria, 2018; Sampath Kumar *et al.,* 2018; Vinay *et al.,* 2019; Shukla *et al.,* 2020). Gender disparity in Library and Information Science (LIS) is a multifaceted issue that has garnered attention recently, particularly concerning authorship, citation patterns, and professional advancement. Studies have examined gender disparity in LIS research productivity. In their study, Sweeper and Smith (2010) indicate significant income disparities based on gender within library science labor, indicating that women face challenges not only in authorship and citation but also in earnings. According to the study by Gul *et al.* (2016), there has been an increasing proportion of male authors over time, accompanied by a decline in the representation of female authors.

In the study, Sampath Kumar *et al.* (2018) found a gender disparity in Indian LIS research productivity, stating that most of the articles were written by males (72.30%) and only 27.69% by female authors. Shukla *et al.* (2020) provides a comprehensive overview of LIS research output in India over the past four decades, noting that while there has been an increase in publications, the gender disparity in authorship persists. Whetstone and Moulaison-Sandy (2020) emphasize the importance of employing mixed methods in content analysis to better understand authorship patterns across disciplines. This approach underscores the necessity of examining how gender influences authorship and productivity. Moreover, Nygaard *et al.* (2022) suggest that aggregate productivity figures can obscure underlying gender disparities, emphasizing the need for comparative analyses that account for similar academic positions and fields. In contrast to Gul *et al.* (2016), another study by Shah *et al.* (2023) found that gender differences in LIS research exhibit similar productivity levels by males and females.

Gender disparity in library research is characterized by a significant underrepresentation of women in authorship roles and bias in research contributions. This affects professional advancement and perpetuates systemic inequalities within the field. Addressing these issues requires concerted efforts to promote gender equity in research practice, recognition, and institutional support.

### 1.2. Objectives and hypotheses

The current study was conducted to determine gender disparity in the Indian LIS literature based on the objectives listed below:

- to know the publications' productivity in LIS literature from 2014-2023,
- to investigate the gender diversity in the publication productivity of Indian LIS literature from 2014 to 2023,
- to identify the nature of authorship patterns in the Indian LIS literature during 2014-2023,
- to identify the first authored publication by gender and
- to know the most productive universities and Indian states.

This study formulated the following hypotheses:

- $H_1$ = There has been a significant growth in Indian LIS publication productivity over the years.
- $H_2$ = There is a significant difference between publication productivity and gender.
- $H_3$ = Male authors are likelier to be published research articles' first authors than female authors.
- $H_4$ = There is an association between the publication productivity of male and female authors and professional status.

## 2. METHODOLOGY

This study examines research articles published by Indian LIS professionals in selected journals between 2014 and 2023. Data about author characteristics (designation, gender, address, university, and state) were extracted from biographical notes given at the beginning or end of each article. This information was meticulously recorded in an MS Excel spreadsheet for subsequent analysis. The study selected only 10 LIS journals published in India, based on publishing history and article quality, which are included in the Web of Science/Scopus/Indian Citation Index/UGC Consortium for Academic Research and Ethics (UGC CARE) list. The details of the publications, viz, number of authors, institutional affiliations, gender, authorship patron, collaborations, and author profession, were extracted and recorded in MS Excel files. The Software Package for Social Science (SPSS) 26 version was used for statistical tests to test the formulated hypotheses.

The primary source of information about the authors' gender and professional activities was the biographical notes provided at the beginning or end of each article. However, this information was available in only a few journals. So, to enhance the accuracy of the authors' gender, the respective authors of such papers were reviewed, and the necessary information was obtained in cases of uncertainty or where data was lacking. Authors' profiles from ResearchGate, Google Scholar, LinkedIn, institutional websites, and other comparable sources were examined. This multi-step process minimized the probability of errors and ensured reliable gender identification of authors.

## 3. RESULTS

### 3.1. Research productivity in Indian LIS journals

The total sample from selected ten Indian LIS journals yielded 2404 articles contributed by Indian LIS authors, resulting in 4583 authors (Table 1), reflecting the active engagement of LIS professionals in research and substantial output in the field over the years. The *"SRELS Journal of Information Management"* leads with a higher number of articles (17.39%) and authors (17.41%), followed by the *"DESIDOC Journal of Library and Information Technology,"* which is in second place (15.97% of articles) and 15.99% authors. Further, this study found that *"World Digital Libraries- An International Journal"* has published the least number of articles contributed by Indian LIS professionals (3.58% articles with 3.53% authors). Also, this journal has the highest average number of articles and authors per article (27.95 and 28.29, respectively).

### 3.2. Distribution of articles cross-tabulated by year

From 2014 to 2023, 2404 articles were published in selected ten Indian LIS journals, with the publication count fluctuating moderately from year to year (Table 2). The highest number of articles was produced in 2021, with 272 articles, followed by 2023, with 256 articles. The *"SRELS Journal of Information Management"* has been the most productive, publishing 418 articles over the past decade. *"World Digital Libraries- An International Journal"*

| Journal | No. of articles | Percentage | No. of authors | Percentage | Avg. articles per year |
|---|---|---|---|---|---|
| Annals of Library and Information Studies (ALIS) | 225 | 9.36 | 426 | 9.30 | 10.68 |
| DESIDOC Journal of Library and Information Technology (DJLIT) | 384 | 15.97 | 813 | 17.74 | 6.26 |
| Gyankosh- The Journal of Library and Information Management (GJLIM) | 116 | 4.83 | 213 | 4.65 | 20.72 |
| IASLIC Bulletin: a Peer-reviewed Journal (IASLIC) | 210 | 8.74 | 393 | 8.58 | 11.45 |
| Journal of Indian Library Association (JILA) | 317 | 13.19 | 610 | 13.31 | 7.58 |
| Journal of Information Management (JIM) | 143 | 5.95 | 257 | 5.61 | 16.81 |
| KELPRO Bulletin (KELPRO) | 187 | 7.78 | 336 | 7.33 | 12.86 |
| Library Herald (LH) | 318 | 13.23 | 575 | 12.55 | 7.56 |
| SRELS Journal of Information Management (SRELS) | 418 | 17.39 | 798 | 17.41 | 5.75 |
| World Digital Libraries - An International Journal (WDL) | 86 | 3.58 | 162 | 3.53 | 27.95 |
| **Total** | **2404** | | **4583** | | |

**Table 1.** Research productivity in Indian LIS journals.

has published the least number of articles contributed by Indian LIS professionals, with 86 articles.

A correlation test was conducted to determine the association between publication productivity and the year of publication. It was observed that there is a positive correlation between publication productivity and the year in all ten Indian LIS journals. However, the correlation is not significant ($r = 0.319$, $p = 0.369$); hence, $H_1$ is rejected. The individual correlation test indicated a statistically significant negative correlation between publication productivity and year (JIM: $r = -.670$, $p = .034$; SRELS: $r = -.803$, $p = .005$). This shows that there has been a decline in the number of publications in both journals during the last ten years (2014-2023). In the case of JILA ($r = .793$, $p = .006$) and LH ($r = .715$, $p = 0.020$), the correlation test indicated a significant positive correlation between publication productivity and year.

| Journal | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total | Correlation | *p-value* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALIS | 31 | 27 | 23 | 22 | 20 | 12 | 15 | 34 | 22 | 19 | 225 | -.318 | .317 |
| DJLIT | 45 | 38 | 41 | 45 | 50 | 28 | 39 | 26 | 16 | 56 | 384 | .259 | .469 |
| GJLIM | 9 | 12 | 12 | 13 | 11 | 14 | 11 | 10 | 12 | 12 | 116 | .180 | .619 |
| IASLIC | 22 | 18 | 16 | 22 | 19 | 23 | 20 | 25 | 22 | 23 | 210 | .542 | .106 |
| JILA | 21 | 19 | 17 | 20 | 22 | 28 | 41 | 61 | 51 | 37 | 317 | .793 | .006 |
| JIM | 17 | 21 | 15 | 16 | 13 | 9 | 18 | 12 | 13 | 9 | 143 | -.670 | .034 |
| KELPRO | 17 | 17 | 16 | 24 | 21 | 19 | 16 | 17 | 19 | 21 | 187 | .203 | .575 |
| LH | 20 | 22 | 28 | 28 | 42 | 32 | 30 | 45 | 37 | 34 | 318 | .715 | .020 |
| SRELS | 45 | 58 | 60 | 42 | 40 | 39 | 38 | 32 | 29 | 35 | 418 | -.803 | .005 |
| WDL | 7 | 8 | 6 | 10 | 8 | 8 | 9 | 10 | 10 | 10 | 86 | .744 | .014 |
| **Total** | **234** | **240** | **234** | **242** | **246** | **212** | **237** | **272** | **231** | **256** | **2404** | **.319** | **.369** |

**Table 2.** Distribution of articles cross-tabulated by year.

### 3.3. Publication productivity by gender

The total sample from ten selected Indian LIS journals yielded 2404 articles contributed by Indian LIS authors, resulting in 4583 authors (Table 3). Of the authors, 3,291 were male (71.8%), while 1,292 were female (28.2%). This indicates a gender disparity in contributions, with male authors comprising a significant majority. The present study focuses on publication productivity in LIS journals between 2014 and 2023, revealing that females have

lower participation in the research world than males (Figure 1). Over the years, the proportion of male and female authors has increased. The journal with the highest total contributors is DJLIT, with 813 authors, of which 74.19% were male and 25.09% were female contributors, followed by SRELS closely with 798 authors (70.30% male and 29.70% female contributors).

Table 3 also shows that male authors dominate scholarly contributions in Indian LIS journals. However, the number of female authors is growing in some journals, particularly in IASLIC (40.46%) and KELPRO (38.39%). The chi-square test was applied to determine the significant association between publication productivity and gender in Indian LIS journals. It was found that there is a significant association between publication productivity and gender in Indian LIS journals ($X^2$ = 136.989 p = 0.000), and hence, Hypothesis $H_2$ is accepted.

| Journal | No. of Article | Total no. of authors | Male authors | Percentage of male authors | Female authors | Percentage of female authors | $X^2$ | *p-value* |
|---|---|---|---|---|---|---|---|---|
| ALIS | 225 | 426 | 325 | 76.29 | 101 | 23.71 | | |
| DJLIT | 384 | 813 | 609 | 74.91 | 204 | 25.09 | | |
| GJLIM | 116 | 213 | 160 | 75.12 | 53 | 24.88 | | |
| IASLIC | 210 | 393 | 234 | 59.54 | 159 | 40.46 | | |
| JILA | 317 | 610 | 479 | 78.52 | 131 | 21.48 | | |
| JIM | 143 | 257 | 187 | 72.76 | 70 | 27.24 | 136.989 | 0.000 |
| KELPRO | 187 | 336 | 207 | 61.61 | 129 | 38.39 | | |
| LH | 318 | 575 | 396 | 68.87 | 179 | 31.13 | | |
| SRELS | 418 | 798 | 561 | 70.30 | 237 | 29.70 | | |
| WDL | 86 | 162 | 133 | 82.10 | 29 | 17.90 | | |
| **Total** | **2404** | **4583** | **3291** | **71.81** | **1292** | **28.19** | | |

**Table 3**. Publication productivity by gender.

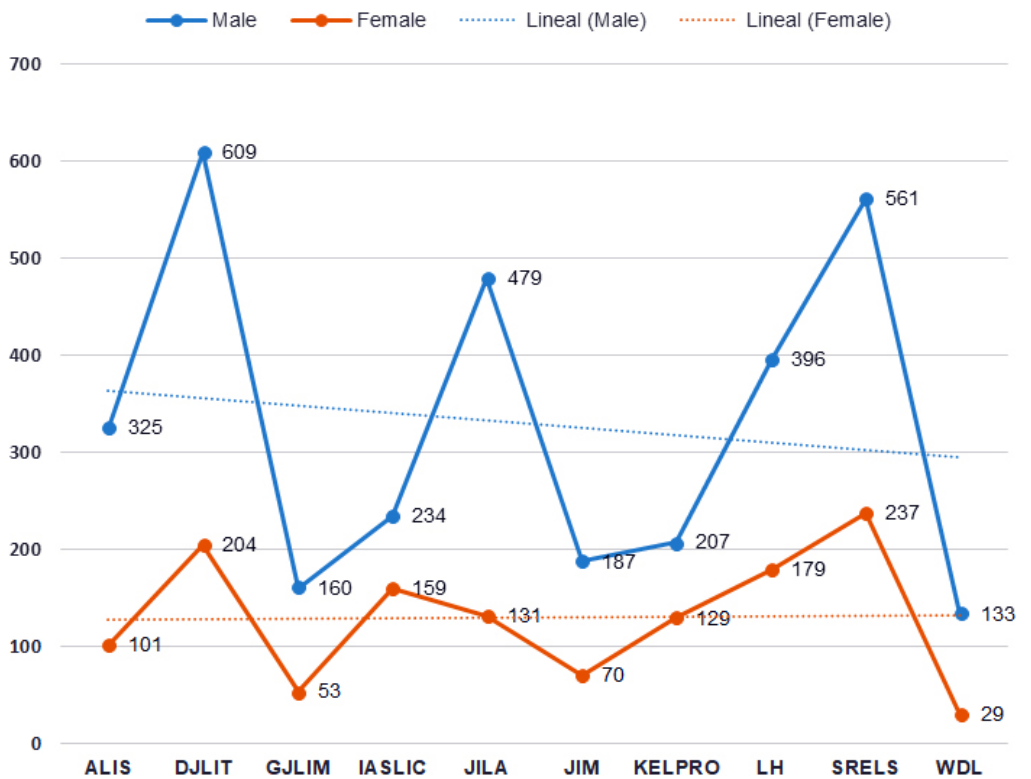


**Figure 1.** Publication productivity by male and female authors

### 3.4. Authorship Patterns by Gender in Indian LIS Literature

Ratio analysis was conducted to assess the publication productivity of male and female authors. Table 4 presents the distribution of publications across different authorship patterns (male solo, female solo, male-female, male-male, and female-female) from 2014 to 2023. The ratio of the number of male publications to the number of male authors was determined to ascertain the difference in publication productivity between male and female authors. The same procedure was followed to determine the proportion of female publications, and the results obtained were compared. To compare the publication productivity, we calculated the ratio of publications to authors for each gender. 3291 male authors produced 1397 publications, yielding a ratio of 2.35 publications per male author. In contrast, 1292 female authors contributed 386 publications, resulting in a higher ratio of 3.34 publications per female author. This suggests a potential difference in research productivity between female and male authors.

Furthermore, Table 4 and Figure 2 reveal distinct collaboration patterns. Male authors strongly prefer collaborating with other male authors, with male-male collaborations accounting for 874 (62.56%) of all male publications. On the other hand, female authors demonstrate a lower propensity for collaborating with other female authors, with female-female collaborations comprising only 186 (48.18%) of all female publications. Male-female collaborations constitute the second most frequent pattern for male authors, contributing 621 (44.45%) of their publications.


**Figure 2**. Productivity trends in various authorship patterns.

| Journal | Number of Articles | Male (solo) | Percentage | Female (solo) | Percentage | Male - Female | Percentage | Male - Male | Percentage | Female - Female | Percentage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALIS | 225 | 57 | 25.33 | 14 | 6.22 | 52 | 23.11 | 91 | 40.44 | 11 | 4.89 |
| DJLIT | 384 | 68 | 17.71 | 19 | 4.95 | 127 | 33.07 | 150 | 39.06 | 20 | 5.21 |
| GJLIM | 116 | 36 | 31.03 | 11 | 9.48 | 32 | 27.59 | 34 | 29.31 | 3 | 2.59 |
| IASLIC | 210 | 46 | 21.90 | 15 | 7.14 | 55 | 26.19 | 58 | 27.62 | 36 | 17.14 |
| JILA | 317 | 73 | 23.03 | 20 | 6.31 | 66 | 20.82 | 141 | 44.48 | 17 | 5.36 |
| JIM | 143 | 35 | 24.48 | 14 | 9.79 | 32 | 22.38 | 53 | 37.06 | 9 | 6.29 |
| KELPRO | 187 | 24 | 12.83 | 26 | 13.90 | 56 | 29.95 | 59 | 31.55 | 22 | 11.76 |
| LH | 318 | 76 | 23.90 | 42 | 13.21 | 88 | 27.67 | 92 | 28.93 | 20 | 6.29 |
| SRELS | 418 | 85 | 20.33 | 33 | 7.89 | 98 | 23.44 | 157 | 37.56 | 45 | 10.77 |
| WDL | 86 | 23 | 26.74 | 6 | 6.98 | 15 | 17.44 | 39 | 45.35 | 3 | 3.49 |
| **Total** | **2404** | **523** | **21.76** | **200** | **8.32** | **621** | **25.83** | **874** | **36.36** | **186** | **7.74** |

**Table 4.** Authorship patterns by gender in Indian LIS literature.

### 3.5. First-authored publications by gender

Table 5 explores the gender distribution in the first authorship to understand gender representation in Indian LIS journals. 69.30% of articles were male-first-authored articles, and female-authored articles 30.70%. ALIS and WDL journals had the highest number of first-authored articles by males (81.33% and 80.23 %, respectively). KELPRO had the lowest percentage of male-authored published articles as first author (50.27%). Compared with female authors as primary authors, the study found that KELPRO was the most published female author (49.73%). Followed by IASLIC 42.80%, the table highlights gender disparities in first-authored publications, with male authors leading overall. However, specific journals display a balanced gender representation, reflecting the inclusivity in LIS scholarship's first authorship opportunities for both male and female authors.

The chi-square test was applied to determine the significant association between males and females as a first-authored publication in Indian LIS journals. This indicates a statistically significant association between males and females as a first-authored publication in Indian LIS journals ($X^2 = 74.724$, $p = 0.000$); hence, Hypothesis $H_3$ is accepted.

| Journal | No. of articles | Male first-authored articles | Percentage of Male first-authored articles | Female first-authored articles | Percentage Female first-authored articles | $X^2$ | *p-value* |
|---|---|---|---|---|---|---|---|
| ALIS | 225 | 183 | 81.33 | 42 | 18.67 | | |
| DJLIT | 384 | 275 | 71.61 | 109 | 28.39 | | |
| GJLIM | 116 | 85 | 73.28 | 31 | 26.72 | | |
| IASLIC | 210 | 120 | 57.14 | 90 | 42.86 | | |
| JILA | 317 | 238 | 75.08 | 79 | 24.92 | | |
| JIM | 143 | 102 | 71.33 | 41 | 28.67 | 74.724 | 0.000 |
| KELPRO | 187 | 94 | 50.27 | 93 | 49.73 | | |
| LH | 318 | 212 | 66.67 | 106 | 33.33 | | |
| SRELS | 418 | 288 | 68.90 | 130 | 31.10 | | |
| WDL | 86 | 69 | 80.23 | 17 | 19.77 | | |
| **Total** | **2404** | **1666** | **69.30** | **738** | **30.70** | | |

**Table 5.** First-authored publications by gender.

### 3.6. Professional engagement of authors cross-tabulated by gender

Table 6 demonstrates that male LIS teachers exhibit higher research productivity and professional engagement than female LIS teachers, with male authors comprising 77.58% of publications. Followed by working professionals (74.48%). Further study found that female authors accounted for 44.39% of research scholars, followed by working professionals (25.52%), and overall, LIS profession male authors dominated (71.81%) than female authors (28.18%). To substantiate this table, the chi-squared test was employed. The test indicated a significant association between the number of author contributions and professional engagement of male and female authors ($X^2 = 177.121$, $p = .000$).

| Author Profession | Total no. of authors | Male authors | Percentage of male authors | Female authors | Percentage of female authors | $X^2$ | *p-value* |
|---|---|---|---|---|---|---|---|
| Teaching | 1481 | 1149 | 77.58 | 332 | 22.42 | | |
| Working | 2198 | 1637 | 74.48 | 561 | 25.52 | | |
| Research Scholar | 883 | 491 | 55.61 | 392 | 44.39 | 177.121 | 0.000 |
| Not Specified | 21 | 14 | 66.67 | 7 | 33.33 | | |
| **Total** | **4583** | **3291** | **71.80** | **1292** | **28.20** | | |

**Table 6.** Professional engagement of authors cross-tabulated by gender.

### 3.7. Distribution of authors' affiliation cross-tabulated gender (Top 10)

Male and female authors across the top ten Indian universities (Table 7) contributed, showing the number and percentage of male and female authors from each university and their ranking by total authors. The University of Delhi (228 articles) and Aligarh Muslim University (117 articles) led in scholarly output, with both male and female authors contributing significantly to the 4583 total contributions. Additionally, the table presents the distribution of articles based on the gender of the authors, and male authors constitute a higher percentage across the top ten universities, ranging from 52.24% at the "University of Calcutta" to 86.76% at "Jadavpur University." Female authors, while fewer than males, showed the highest representation at the "University of Calcutta" (47.76%) and the "University of Kerala" (44.35%).

The chi-square test ($X^2 = 48.880$, $p = 0.000$) indicates a statistically significant difference in gender among authors across the top ten ranked universities. The p-value was less than the standard significance level (0.05), and there was a significant association between the university and gender composition of the authors."

| Universities | Male | Percentage | Female | Percentage | Total no. of authors | Rank |
|---|---|---|---|---|---|---|
| University of Delhi | 147 | 64.47 | 81 | 35.53 | 228 | 1 |
| Aligarh Muslim University | 92 | 78.63 | 25 | 21.37 | 117 | 2 |
| University of Kerala | 64 | 55.65 | 51 | 44.35 | 115 | 3 |
| Mizoram University | 88 | 80.73 | 21 | 19.27 | 109 | 4 |
| Banaras Hindu University | 62 | 72.09 | 24 | 27.91 | 86 | 5 |
| Babasaheb Bhimrao Ambedkar University | 54 | 73.97 | 19 | 26.03 | 73 | 6 |
| Panjab University | 42 | 59.15 | 29 | 40.85 | 71 | 7 |
| Jadavpur University | 59 | 86.76 | 9 | 13.24 | 68 | 8 |
| University of Calcutta | 35 | 52.24 | 32 | 47.76 | 67 | 9 |
| University of Mysore | 48 | 76.19 | 15 | 23.81 | 63 | 10 |

**Table 7.** Distribution of authors' affiliation cross-tabulated gender (Top 10).

### 3.8. Distribution of authors by states and Union Territories cross-tabulated by gender

Table 8 shows the contributions of articles by male and female authors from different Indian states and union territories. 16.45% of the authors from New Delhi secured their first position on the list. West Bengal stood in the second position, publishing 12.18% of authors, followed by Karnataka with 12.11% of the authors. The table also reveals that researchers from Sikkim, Nagaland, and Arunachal Pradesh contributed the least (less than 0.20%) authors. It is observed that male authors (71.81%) are dominated by female authors (28.19%) in most states in India. The above data shows that most of the Indian states and Union Territories have made distinct contributions to the country's LIS research environment.

The Chi-square test was applied to determine the significant association between the publication productivity of males and females in the Indian state and union territories. There was a significant association ($X^2$ = 109.433, p = .000) between the publication productivity of males and females in the Indian state and union territories. Hence, Hypothesis $H_4$ is accepted.

| Indian States | No. of articles | Male | Percentage | Female | Percentage | Grand Total | Percentage |
|---|---|---|---|---|---|---|---|
| New Delhi | 403 | 532 | 70.56 | 222 | 29.44 | 754 | 16.45 |
| West Bengal | 312 | 407 | 72.94 | 151 | 27.06 | 558 | 12.18 |
| Karnataka | 257 | 431 | 77.66 | 124 | 22.34 | 555 | 12.11 |
| Uttar Pradesh | 215 | 311 | 73.18 | 114 | 26.82 | 425 | 9.27 |
| Kerala | 63 | 162 | 55.67 | 129 | 44.33 | 291 | 6.35 |
| Tamil Nadu | 148 | 234 | 81.82 | 52 | 18.18 | 286 | 6.24 |
| Maharastra | 147 | 193 | 69.42 | 85 | 30.58 | 278 | 6.07 |
| Jammu and Kashmir | 79 | 105 | 66.04 | 54 | 33.96 | 159 | 3.47 |
| Chandigarh | 61 | 77 | 57.46 | 57 | 42.54 | 134 | 2.92 |
| Haryana | 67 | 87 | 72.5 | 33 | 27.5 | 120 | 2.62 |
| Punjab | 72 | 89 | 78.07 | 25 | 21.93 | 114 | 2.49 |
| Mizoram | 52 | 88 | 80 | 22 | 20 | 110 | 2.40 |
| Gujarat | 50 | 71 | 70.3 | 30 | 29.7 | 101 | 2.20 |
| Assam | 50 | 59 | 70.24 | 25 | 29.76 | 84 | 1.83 |
| Rajasthan | 56 | 63 | 75 | 21 | 25 | 84 | 1.83 |
| Odisha | 43 | 65 | 78.31 | 18 | 21.69 | 83 | 1.81 |
| Puducherry | 32 | 49 | 72.06 | 19 | 27.94 | 68 | 1.48 |
| Andhra Pradesh | 35 | 36 | 56.25 | 28 | 43.75 | 64 | 1.40 |
| Madhya Pradesh | 26 | 43 | 72.88 | 16 | 27.12 | 59 | 1.29 |
| Telagana | 29 | 34 | 70.83 | 14 | 29.17 | 48 | 1.05 |
| Uttarakhand | 21 | 31 | 86.11 | 5 | 13.89 | 36 | 0.79 |
| Meghalaya | 14 | 23 | 71.88 | 9 | 28.13 | 32 | 0.70 |
| Manipur | 12 | 16 | 64 | 9 | 36 | 25 | 0.55 |
| Himachal Pradesh | 13 | 14 | 63.64 | 8 | 36.36 | 22 | 0.48 |
| Bihar | 11 | 18 | 94.74 | 1 | 5.26 | 19 | 0.41 |
| Jharkhand | 9 | 10 | 58.82 | 7 | 41.18 | 17 | 0.37 |
| Goa | 9 | 11 | 68.75 | 5 | 31.25 | 16 | 0.35 |
| Tripura | 6 | 10 | 76.92 | 3 | 23.08 | 13 | 0.28 |
| Sikkim | 2 | 5 | 100 | 0 | 0 | 5 | 0.11 |
| Nagaland | 1 | 2 | 66.67 | 1 | 33.33 | 3 | 0.07 |
| Arunachal Pradesh | 1 | 1 | 100 | 0 | 0 | 1 | 0.02 |
| Not Specified | 8 | 14 | 73.68 | 5 | 26.32 | 19 | 0.41 |
| **Grand Total** | **2404** | **3291** | **71.81** | **1292** | **28.19** | **4583** | **100.00** |

**Table 8.** Distribution of authors by states and Union Territories cross-tabulated by gender.

## 4. DISCUSSION

This study found that male authors (71.81%) significantly outperformed female authors (28.19%). However, various studies have shown that men are more research-productive than women. For instance, Patel and Verma (2020) observed lower publication rates among females in the LIS field. Similarly, Rachid *et al.* (2021) investigated the impact of gender on research productivity among faculty at the *American University of Beirut,* further supporting this trend.

From 2014 to 2023, there was steady scholarly output, with peaks in 2021 (272 articles) and 2023 (256 articles). The *"SRELS Journal of Information Management"* remained the most productive, whereas *"World Digital Libraries"* contributed the least. Authorship is predominantly collaborative, with male-male author teams comprising 36.36% of the publications, while mixed-gender teams account for 25.83%. Female-only author teams contributed to 7.74% of the articles. Males held the majority of first authorship (69.30%), reflecting a gender disparity in leadership roles within publications. ALIS and WDL had the highest proportion of male-first-authored articles, while KELPRO showed a more balanced representation with 49.73% female-first authorship.

The study revealed that male authors dominate professional engagement, particularly in the LIS profession (77.58%) and working professionals (74.48%). Female representation was more pronounced among research scholars, comprising 44.39%, suggesting that female authors may be newer to the field. The *"The University of Delhi,"* with 228 articles, and *"Aligarh Muslim University,"* with 117 articles, produced the highest number of contributions among the top 10 universities. Female authors, while fewer than males, showed the highest representation at the *"University of Calcutta"* (47.76%) and the *"University of Kerala"* (44.35%).

New Delhi leads with 16.45% of the authors who contributed to Indian LIS journals, followed by West Bengal (12.18%) and Karnataka (12.11%). States such as Sikkim, Nagaland, and Arunachal Pradesh showed minimal contributions, each under 0.20%. Across the states, male authors (71.81%) outnumbered female authors (28.19%), mirroring the overall gender disparity observed throughout the study.

Based on these findings, the following suggestions are recommended to enhance inclusivity, productivity, and collaborative engagement within the Indian LIS profession:

- Promote initiatives to support and mentor female authors to bridge gender diversity. Institutions and professional bodies can provide training programs, workshops, and funding to empower female LIS professionals in research and publishing. Because multi-authored articles contribute significantly to journals, encouraging inter-university and inter-state collaborations can enhance diversity. Regional research centers can be established in low-productivity states to provide resources and networking opportunities for LIS professionals.
- Policies encouraging faculty and student publications and institutional support for journal submissions can enhance academic productivity across LIS departments. Developing professional networks within the LIS community, mainly through conferences and online forums, can promote knowledge exchanges and collaborative opportunities.
- Implementing these suggestions can foster a more inclusive, collaborative, and productive research environment in Indian LIS, thereby strengthening and diversifying the field.

### 4.1. Limitations of the study

The study's findings are based only on the contributions of male and female authors to India's LIS journals. Future studies may compare publication productivity, practices, and research collaboration among LIS professionals from different countries.

### Conflict of interests

The author has no competing interests to declare relevant to this article's content.

### Contribution statement

Conceptualization, investigation, validation, writing-original draft, writing-review & editing: Shiva Kumara S U. Validation, writing-review & editing: Prof. B T Sampath Kumar.

## Statement of data consent

The data generated during the development of this study has been included in the manuscript. ●

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