

# BIBLIOMETRIC ANALYSIS OF CONTRIBUTIONS TO THE JOURNAL 'ANNALS OF LIBRARY AND INFORMATION STUDIES (ALIS)' FROM 2013 TO 2016

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**Abstract:** 'Annals of Library and Information Studies (ALIS)' is a premier publication in the field of Library and Information Science published from India since 1954 by CSIR-NISCAIR. The present study revealed the coverage of ALIS in different subject areas in Library Science, Information Science and Technology. A conventional type of bibliometric study is conducted to analyse the year-wise distribution of articles published in the journal, authorship pattern and geographical affiliation of authors, citations and reference patterns, length of the articles and subject-wise distribution of the articles published in the journal from 2013 to 2016. From the study it is clear that the frequency of publication is consistent with around 32 to 38 articles published per year and an average of 9 articles per issue. Most of the papers (65%) are jointly authored and majority of the authors (81%) are from India. Most of the Indian authors preferred to do research independently as compared to the authors from other countries. On analysing the reference pattern, it is clear that the average reference per article is 20. The average length of the articles is found to be 8.18 pages with 4.68 keywords per article. It is also clear from the study that the most preferred subject area is Bibliometrics and User Behavioural Studies, which comprises of more than 50% of the articles published in the period of the study

**Keywords:** Bibliometrics, Journal productivity, Annals of Library and Information Studies, ALIS

**1.0 Introduction:** Bibliometrics is a study of quantitative aspects of literatures. It can be used to measure the quantity and quality of research work done on a particular topic. The term, 'bibliometrics', is coined by Pritchard in 1969. 'Biblio' means book and 'metrics' means measure. So the term bibliometrics etymologically means measurement related to books. Pritchard defined bibliometrics as 'the application of mathematics and statistical methods to books and other media of communication'. Potter in 1981 defines bibliometrics as 'the study and measurement of the publication pattern of all forms of written communication and their author'. Bibliometric study can be done to analyse the research productivity of an organization, contributions to a particular periodical, publications in a particular topic or subject area, works and literature by any eminent personality, etc.

The present study aims to provide an overview of contributions to the journal 'Annals of Library and Information Studies (ALIS)' from 2013 to 2016, thereby examining authorship pattern, geographical distribution of authors, citation patterns, etc. Annals of Library and Information Studies is a leading quarterly journal in library and information studies publishing original papers, survey reports, reviews, short communications, and letters pertaining to library science, information science and computer applications in these fields. It is an open access journal published by CSIR – NISCAIR (formerly INSDOC). It started publication from 1954 in the name 'Annals of Library Science' and changed its name to 'Annals of Library and Documentation' in 1964. The present title was assigned in 2001. Dr. S R Ranganathan was its first editor <sup>[1]</sup>.

## 2.0 Literature Review

Bibliometrics, being an old and popular research area, has its presence across each and every field of knowledge. So much is its influence in quantifying the depth of literature in any subject area. As far as Library and Information Science research is concerned, majority of the research activities were done on Bibliometrics, Scientometrics and Webometrics. R. Pandita <sup>[2]</sup> (2013) studied the article distribution pattern, authorship pattern, reference pattern, geographical distribution of authors, etc. of articles published in ALIS during the period 2002 – 2012 and concluded that most of the study has been conducted by joint authors. C. Kamal Kumar <sup>[3]</sup> (2008) studied the contribution pattern, collaboration of authorship, citation pattern, etc. of articles published in ALIS

during the period from 2002 to 2006. From his study it is clear that most of the contributions are on bibliometrics and authors prefer to do collaborative research. Also 'Annals of Library and Information Studies' occupies the 1<sup>st</sup> rank in ranked list of most cited journals. A similar study has been conducted by K. L. Jena, D. K. Swain and K. C. Sahoo <sup>[4]</sup> (2012) with articles published for a period from 2002 to 2010.

B. K. Sen, B. Dutta and A. K. Das <sup>[5]</sup> (2002), on their study elucidates the history of bibliometric research and related training activities in INSDOC whereas S. K. Patra and P. Chand <sup>[6]</sup> (2006) applied Lotka's law to study the contribution pattern of Library and Information Science Research in India from 1967 to 2004 in Library and Information Science Abstracts (LISA). R. Mittal, A. Sharma & G. Singh <sup>[7]</sup> (2006) conducted a study on periodical literatures on Library and Information Science Education for a period from 1995 to 2004. They applied Lotka's Law and Bradford's Law to study the literature growth and productivity of authors. A. Hussain, N. Fathima and D. Kumar <sup>[8]</sup> (2011) analysed 578 articles published in 'Electronic Library Journal' during the period from January 2000 to December 2010 whereas J. Crawley-Low <sup>[9]</sup> (2006) studied the citation pattern of researchers publishing in the American Journal of Veterinary Research (AJVR) and produced a list of core veterinary medicine journals.

Journal bibliometric characteristics of the 'Journal of Documentation' (JOD) and the subject relationship with other disciplines were explored by M. Tsay and Z. Shu <sup>[10]</sup> (2011) by analysing the citation pattern of each articles published between 1998 and 2008 in the journal. Authorship collaboration, geographic distribution and citation patterns of articles published in 'International Journal of Information Dissemination and Technology (IJIDT)' for a period of 2011 to 2015 were examined by R. Kuri and T. Aadin <sup>[11]</sup> (2016) whereas the global reach of 'Indian Journal of Endocrinology and Metabolism (IJEM)' were studied and explained by G. Bhutani, J. Kaushal and S. Godara <sup>[12]</sup> using bibliometric analysis.

### 3.0 Objectives of the Study

The main objectives of the study are:

- i. To analyse the year-wise distribution of articles published.
- ii. To identify the authorship pattern of the articles published.
- iii. To find out geographical distribution of articles.
- iv. To analyse citation pattern of the articles.
- v. To find out the length of the articles published.
- vi. To find out the major subject area of articles published in the journal.

### 4.0 Methodology

In this study, data were collected by physically examining each article published in 'ALIS' from 2013 to 2016. Collected data are compiled using MS Excel 2007. Tables and graphs were drawn for the corresponding data values and observations were found out. Average values of each parameter were calculated and recorded.

### 5.0 Analysis

The compiled data were analysed in different aspects such as year-wise distribution, authorship pattern, geographical affiliation of authors, citation pattern, length-wise distribution, subject-wise distribution of articles published etc. In total 142 articles published in ALIS from 2013 to 2106 had been studied. For observing different aspects, different tables were created in Microsoft Excel 2007. Graphs were drawn wherever it is necessary. The results of the analyses are appended below:

#### 5.1 Year-Wise Distribution of Articles

Year-wise analysis of articles shows that the no of articles published in a year is almost equal. 32 to 38 articles had been published yearly during the period of the study. The frequency of the publication is also consistent with 4 issues per year. Also the average articles published per issue is 9 (appr.). A major increase in no of articles (16 Nos) is seen in the December issue of 2015 (Vol. 62). The year-wise distribution of articles is shown in Table 1.

**Table 1 : Year-Wise Distribution of Articles**

| Year | Volume | Issue | No of Articles | Percentage | Percentage Year-wise |
|------|--------|-------|----------------|------------|----------------------|
| 2013 | 60     | 1     | 9              | 6.34%      | 26.10%               |
|      | 60     | 2     | 9              | 6.34%      |                      |
|      | 60     | 3     | 9              | 6.34%      |                      |
|      | 60     | 4     | 10             | 7.04%      |                      |
| 2014 | 61     | 1     | 9              | 6.34%      | 25.35%               |

|              |    |   |            |             |             |
|--------------|----|---|------------|-------------|-------------|
|              | 61 | 2 | 8          | 5.63%       |             |
|              | 61 | 3 | 11         | 7.75%       |             |
|              | 61 | 4 | 7          | 4.93%       |             |
| 2015         | 62 | 1 | 6          | 4.23%       | 26.76%      |
|              | 62 | 2 | 7          | 4.93%       |             |
|              | 62 | 3 | 9          | 6.34%       |             |
|              | 62 | 4 | 16         | 11.27%      |             |
| 2016         | 63 | 1 | 10         | 7.04%       | 22.54%      |
|              | 63 | 2 | 8          | 5.63%       |             |
|              | 63 | 3 | 8          | 5.63%       |             |
|              | 63 | 4 | 6          | 4.23%       |             |
| <b>Total</b> |    |   | <b>142</b> | <b>100%</b> | <b>100%</b> |

**5.1.1 Authorship Pattern of Articles**

Authorship pattern shows that most of the articles (64.79%) were jointly authored. 50 (35.21%) out of 142 articles were single authored while 68 articles were published by 2 authors. 15 articles were published by 3 authors where as 5 articles were published by 4 authors. More than 4 authors contribute only 4 (2.82%) articles out of 142.

**Table 2 : Authorship Pattern of Articles**

| Authorship Type     | No of Articles | No of Authors | Percentage     | No of Authors per Article |
|---------------------|----------------|---------------|----------------|---------------------------|
| Single Author       | 50             | 50            | 35.21%         | 1                         |
| 2 Authors           | 68             | 136           | 47.89%         | 2                         |
| 3 Authors           | 15             | 45            | 10.56%         | 3                         |
| 4 Authors           | 5              | 20            | 3.52%          | 4                         |
| More than 4 Authors | 4              | 21            | 2.82%          | 5.25                      |
| <b>Total</b>        | <b>142</b>     | <b>272</b>    | <b>100.00%</b> | <b>1.92</b>               |

**5.1.2 Geographical Affiliation of Authors**

Being an Indian journal, most of the authors contributing to ALIS are Indians. A total of 115 articles out of 142 were contributed by 201 Indian authors, the no of authors per article being 1.75. This average shows that Indian articles were mostly single authored or published by 2 authors. 11 articles were published by 37 authors from Nigeria. The average no of authors per article is 3.36. This average shows that Nigerian authors used to do joint research. No single authored articles were published by Nigerian authors. Rest 16 (11.26%) of the articles were published by the authors from Sri Lanka, Bangladesh, USA, Iran, Tanzania and Figi (Table 3).

**Table 3 : Geographical Distribution of Authors**

| Country Name      | No of articles | No of authors | Percentage of Authors | Percentage of Articles | No of authors per article |
|-------------------|----------------|---------------|-----------------------|------------------------|---------------------------|
| <b>India</b>      | 115            | 201           | 73.90%                | 80.99%                 | 1.75                      |
| <b>Bangladesh</b> | 4              | 10            | 3.68%                 | 2.82%                  | 2.5                       |
| <b>Figi</b>       | 1              | 2             | 0.74%                 | 0.70%                  | 2                         |
| <b>Iran</b>       | 2              | 8             | 2.94%                 | 1.41%                  | 4                         |
| <b>Nigeria</b>    | 11             | 37            | 13.60%                | 7.75%                  | 3.36                      |
| <b>Sri Lanka</b>  | 5              | 7             | 2.60%                 | 3.52%                  | 1.4                       |
| <b>Tanzania</b>   | 2              | 3             | 1.10%                 | 1.41%                  | 1.5                       |
| <b>USA</b>        | 2              | 4             | 1.50%                 | 1.41%                  | 2                         |
| <b>Total</b>      | <b>142</b>     | <b>272</b>    | <b>100</b>            | <b>100</b>             | <b>1.92</b>               |

**5.1.3 Citation Pattern :** Citation distribution pattern shows that most of the articles (52) have citations in the range 11 to 20. 31 articles have 1 to 10 citations while 30 articles have 20 to 30 citations. Only 1 article has more than 50 citations whereas 2 articles were published without citations (fig 1).

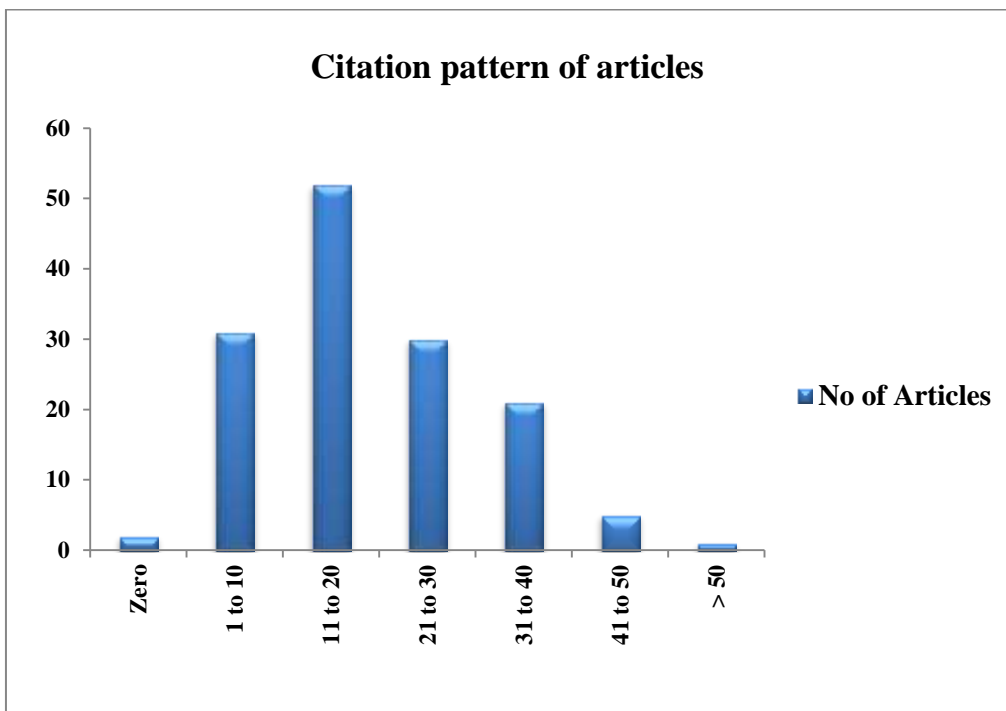


Figure 1 : Citation pattern of articles

Table 5 shows year-wise distribution of reference patterns. It is clear from the table that the average reference given per article is 20.

Table 5 : Reference distribution pattern of articles

| Year         | No of articles | Total No of References | Averages reference per article |
|--------------|----------------|------------------------|--------------------------------|
| 2013         | 37             | 819                    | 22.14                          |
| 2014         | 35             | 803                    | 22.94                          |
| 2015         | 38             | 653                    | 17.18                          |
| 2016         | 32             | 572                    | 17.88                          |
| <b>Total</b> | <b>142</b>     | <b>2847</b>            | <b>20.05</b>                   |

#### 5.1.4.Keyword Distribution and Length of the Articles

Both keyword distribution and length of the articles are having least importance in the context of the study. The average pages per article is found to be 8.18 (Table 6) whereas average no of keywords per article is 4.68 (Table 7).

Table 6 : Length of The Articles

| Year         | No of articles | Total No of Pages | Averages pages per article |
|--------------|----------------|-------------------|----------------------------|
| 2013         | 37             | 294               | 7.95                       |
| 2014         | 35             | 317               | 9.06                       |
| 2015         | 38             | 269               | 7.08                       |
| 2016         | 32             | 282               | 8.81                       |
| <b>Total</b> | <b>142</b>     | <b>1162</b>       | <b>8.18</b>                |

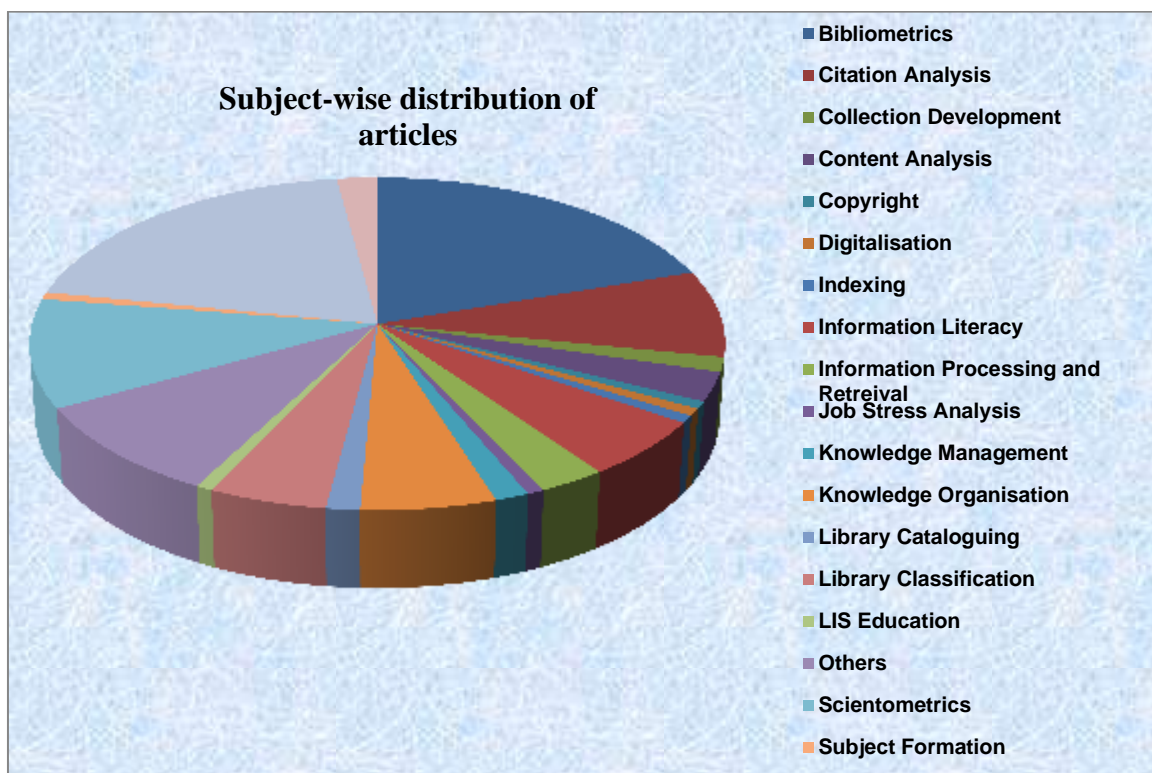
Table 7 : Keyword Distribution Pattern in Articles

| Year         | No of articles | Total No of Keywords | Averages Keywords per article |
|--------------|----------------|----------------------|-------------------------------|
| 2013         | 37             | 181                  | 4.89                          |
| 2014         | 35             | 151                  | 4.31                          |
| 2015         | 38             | 174                  | 4.58                          |
| 2016         | 32             | 158                  | 4.94                          |
| <b>Total</b> | <b>142</b>     | <b>664</b>           | <b>4.68</b>                   |

**5.2 Subject-Wise Distribution of Articles:** Bibliometrics (19.72%) and User Studies (19.72%) were the major subject areas found in the articles for the period of study followed by Scientometrics (10.56%) and Citation Analysis (8.45%). Information Literacy (05.63%), Knowledge Organisation (05.63%) and Library Classification (04.93%) were other major areas of studies done during the period

**Table 8 : Subject-Wise Distribution of Articles**

| Research Area                        | Year      |           |           |           | No of Articles | Percentage     |
|--------------------------------------|-----------|-----------|-----------|-----------|----------------|----------------|
|                                      | 2013      | 2014      | 2015      | 2016      |                |                |
| Bibliometrics                        | 5         | 12        | 5         | 6         | 28             | 19.72%         |
| Citation Analysis                    | 5         | 2         | 3         | 2         | 12             | 8.45%          |
| Collection Development               | 1         | 0         | 1         | 0         | 2              | 1.41%          |
| Content Analysis                     | 1         | 1         | 1         | 1         | 4              | 2.82%          |
| Copyright                            | 1         | 0         | 0         | 0         | 1              | 0.70%          |
| Digitalisation                       | 0         | 1         | 0         | 0         | 1              | 0.70%          |
| Indexing                             | 0         | 0         | 0         | 1         | 1              | 0.70%          |
| Information Literacy                 | 2         | 1         | 3         | 2         | 8              | 5.63%          |
| Information Processing and Retrieval | 1         | 0         | 0         | 3         | 4              | 2.82%          |
| Job Stress Analysis                  | 1         | 0         | 0         | 0         | 1              | 0.70%          |
| Knowledge Management                 | 1         | 0         | 1         | 0         | 2              | 1.41%          |
| Knowledge Organisation               | 0         | 5         | 3         | 0         | 8              | 5.63%          |
| Library Cataloguing                  | 0         | 1         | 1         | 0         | 2              | 1.41%          |
| Library Classification               | 1         | 0         | 5         | 1         | 7              | 4.93%          |
| LIS Education                        | 0         | 1         | 0         | 0         | 1              | 0.70%          |
| Others                               | 1         | 1         | 6         | 5         | 13             | 9.15%          |
| Scientometrics                       | 4         | 3         | 2         | 6         | 15             | 10.56%         |
| Subject Formation                    | 0         | 1         | 0         | 0         | 1              | 0.70%          |
| User Behaviour Study                 | 12        | 6         | 5         | 5         | 28             | 19.72%         |
| Webometrics                          | 1         | 0         | 2         | 0         | 3              | 2.11%          |
| <b>Total</b>                         | <b>37</b> | <b>35</b> | <b>38</b> | <b>32</b> | <b>142</b>     | <b>100.00%</b> |



**Figure 2 : Subject-wise distribution of articles**

**6.0 Conclusion**

Bibliometrics, being a powerful tool to measure the quantitative as well as qualitative aspects of literature publication, finds many applications both online and offline. The present study is limited to the articles published from 2013 to 2016 in ALIS as several studies had been done before on the articles published upto 2012. On an average 32 to 38 articles were published each year in the journal 'Annals of Library and Information Studies (ALIS)' with an average of 9 articles per issue. Most of the papers were jointly authored, out of which, papers having 2 authors are more (47.89%). Being an Indian journal, 81% of the articles are published by Indian authors. On analysing the citation pattern, it is clear that most of the papers are having citations in the range 11 to 20. The average no of reference given per paper is 20.05. The average length of articles is 8.18 pages with an average keyword of 4.68 per article. Bibliometrics and User Behavioural Studies are the most preferred subject area of the studies.

**7.0 Reference**

1. Online Publishing @ NISCAIR. (2017). Retrieved November 21, 2017, from <http://op.niscair.res.in/index.php/ALIS>
2. Pandita, R. (2013). Annals of Library and Information Studies (alis) Journal: a Bibliometric Study (2002-2012). *Desidoc Journal of Library and Information Technology*, 33, 6, 493-497.
3. Chaurasia, Kamal Kumar. (2008). *Bibliometric analysis of Annals of Library and Information Studies (2002-2006)*.
4. Jena, K. L., Swain, D. K., & Sahoo, K. C. (2012). Annals of Library and Information Studies, 2002-2010: A bibliometric study. *Library Philosophy and Practice*, 2012.
5. Sen, B.K., Dutta, Bidyarthi, & Das, Anup Kumar. (2002). INSDOC'S contribution to bibliometrics. (Annals of Library and Information Studies 49(1); 2002; 1-6.) *National Institute of Science Communication and Information Resources*.
6. Patra, S. K., & Chand, P. (2006). Library and information science research in India: A bibliometric study. *Annals of Library and Information Studies*, 53, 4, 219-223.
7. Mittal, R., Sharma, A., & Singh, G. (2006). Periodical literature on library and information science education: A bibliometric study. *Annals of Library and Information Studies*, 53, 4, 224-229.
8. Hussain, A., Fatima, N., & Kumar, D. (2011). Bibliometric analysis of the 'Electronic Library' journal (2000-2010). *Webology*, 8, 1.
9. Crawley-Low, Jill. (2006). Bibliometric analysis of the American Journal of Veterinary Research to produce a list of core veterinary medicine journals. *Medical Library Association*.
10. Tsay, M., & Shu, Z. (2011). Journal bibliometric analysis: A case study on the Journal of Documentation. *Journal of Documentation*, 67, 5, 806-822.
11. Kuri, R & Aadin, T. (2016). International Journal of Information Dissemination and Technology (IJIDT): A Bibliometric Study. *International Journal of Library and Information Studies*, 6, 4, 72-82.
12. Bhutani, G., Kaushal, J., & Godara, S. (January 01, 2013). Bibliometric analysis of Indian Journal of Endocrinology and Metabolism. *Indian Journal of Endocrinology and Metabolism*, 17, 5, 871.