



Mapping the Research Publications Trends in Journal of Advances in Library and Information Science (JALIS) during 2012 –2016: A Bibliometric Analysis

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Abstract

The present paper analyses the mapping of research publications trends in Journal of Advances in Library and Information Science for the period of five years (2012-2016) on the basis of various bibliometric parameters such as authorship pattern of articles, references, geographical distribution etc. The study reveals that there were total 251 papers published during stipulated period of study and highest number of papers (62) were published in 2015 and majority of publications are in form of collaborative research. In State wise distribution of publications, Tamilnadu State has got the first rank with 71.31% contributions followed by Karnataka and Andhra Pradesh and S. Gopalakrishnan from Tamilnadu contributed the highest number of articles (15) followed by M. Nagarajan (12) and S.Mohamed Esmail (10). Total 2360 references was cited by authors in their research papers.

Keywords: Bibliometrics, Journal of Advances in Library and Information Science, Research Publication, Mapping LIS Research, Authorship pattern, Citation analysis, Reference Pattern.



1 Introduction

Research publication is one of the most important by product of research activities which generalises the research finding to rest of world and generally it is communicated in form of journal articles. Journal of Advances in Library and Information Science (JALIS) is an International peer reviewed online journal in Library and Information Science subject since 2012 on the Quarterly basis. JALIS is one of the leading online peer reviewed journals in the field of Library and Information Science in India and day by day its popularity has increased which is reflected in the finding of study. JALIS has covered most of the professional areas and burning aspects of LIS profession with a good number of issues dedicated to topics like mapping of global research, performance in e-learning, impact of information technology, growth of remote sensing literature and much more (Source: <http://jalis.in/index.html>). In order to understand the latest trend and pattern of publication distribution in the field of library and information science in India an attempt has been made to undertake the bibliometric study on JALIS for the period 2012 – 2016.

The practical approach to bibliometrics in library and information services has been visualized by S.R. Ranganathan in terms of Librametry who conceived the idea at Association of Special Libraries and Information Bureaux (ASLIB) conference at Leamington Spa, United Kingdom in 1948. With the time span many similar term came and became popular like Scientometrics, Informetrics, Webometrics and Cybermetrics.

2 Literature Review

Dixit and Katare (2007) did a bibliometric analysis of Journal of the Indian Society for Cotton Improvement from 1995-2004 and analyzed the patterns of authorship, bibliographic forms, citations, contributing institutions, and subjects and also identified the core journals in the field of cotton science. They found that more than three authorship pattern of publications occupied first position with 116 (35.47%) articles during study period and the All India Coordinated Cotton Improvement Project (AICCIP) Research Stations & Agricultural Universities ranked first with 138 (42.20%) publications. It also found that out of 3521 citations, 2533 citations (71.93%) were exclusively from journals, followed by conference proceedings, books, etc. Deshmukh (2011) examined the citation pattern of Annals of Library and Information Studies during 1997-2010 and analysed 4141 citations used in the articles published in ALIS during



1997-2010 and finding shows that journal is the most cited source of information or authors and single authored citations continue to be dominant, the average number of citations per article was found to be 12.70 and the half-life of LIS literature was found to be 9 years for journals and 14 years for books.

Bansal (2013) conducted a study on bibliometric analysis of the DESIDOC journal of library and information technology, during the period of study, and analysed that pattern of authorship and geographic distribution of output, subject covered and citation analysis and found that 391 papers were published over the period of (2001-2012) while 65 papers were published in 2012. The highest number of contributions is two collaborations with 61.4%, and majority of contribution (88%) are from India and 12% are from foreign countries. Kumar et al (2013) studied the various trends citing the study of Journal of Creative Behavior (JCB). The researchers discussed Bradford's law and their application in the field of citation and Bibliometric analysis and indicated that journal is the main source of information in the field of creativity, psychology and education, which is followed by monographs and other forms of reading materials Das (2013) conducted bibliometric analysis of the journal Library Trends to analyse the contributions of the author and the citations cited by various articles published in it and concluded that total 206 articles published from 2007-2012 and Highest number of articles is published in 2007-08 with 51 publications. Majority of authors (59.22%) preferred to publish their research results in individual authorship mode and majority of articles 30.58% have the length of 16- 20 pages.

Gautam and Verma (2014) did a bibliometric study of SRELS Journal of Information Management for the period of 2000-2013 and observed that total 627 papers were published in SRELS with 44.78 average number of contribution per volume and with 11.39% average citations per contribution. Contributors prefer to publish as joint author papers more during the study period and prefer to cite journals more with 2900 (40.57%) citations followed by books with 2090 (29.24%) citations in total references. Gudodagi and Manjunatha (2014) examined the publication and reference patterns in the PEARL - A Journal of Library & Information Science during 2007-2013 and majority of papers contributed in this journal are from India authors and Andhra Pradesh contributed maximum number of papers among the Indian states,



followed by Karnataka and Tamil Nadu. The maximum contributions (42.12%) are in two authorship pattern and average number of 10 references per paper was found during the study period of journal. Vellaichamy and Jeysankar (2015) conducted a bibliometric analysis of webology journal during 2004-2013 which focuses on various aspects such as growth of papers, authorship pattern, degree of collaboration length of paper, document type subject wise distribution of papers and rank of paper contributors and found that there are total 158 papers published during the study period out of which 60% are in single authorship. Webometrics is a leading subject area of journal with 41 publications followed by social media and electronic resources. With 22.03% contribution, India is in top contributor country and Alireza Noruzi is most prolific author with 18 contributions during the period of study. Ramasamy and Padma (2017) analysed the research output of Journal of Bioscience and Bioengineering and reported that total 2835 articles were published during 2007-2016 as average of 284 articles each year which shows a liner style of growth in their research output. Kondo A is the most productive author with 52 publications and being a host country of this journal Japan is most contributing during this period of study. Brahma and Verma (2017) conducted a study on web citation behaviour in SRELS journal of information management and DESIDOC journal of library and information technology and analysed number of articles published in SRELS journal and DESIDOC journal and found that 306 articles were published in SRLES journal and 286 articles in DJLIT. They also found out the overall percentage of articles with web references as 73.81% having web references during the period of study.

3 Objectives

The objectives of the study are to analyse the publication trends with respect to following parameters as reflected in Journal of Advances in Library and Information Science (JALIS) during 5 years period (2012-2016)

- (i) Publications output,
- (ii) Authorship pattern
- (iii) Geographical distribution of contributors and contribution country
- (iv) Major contributors and
- (v) Reference distribution pattern



4 Scope and Limitations of Study

The scope of present study is limited to analyse the publications trends of an online journal of Library and Information science i.e. Journal of Advances in Library and Information Science on the basis of bibliometrics tools and techniques. The scope is further limited to five years from 2012 –2016. During the data collection time, volume 5 issue no 2 was not opening and unable to download the article published in this issue due to technical error of website and therefore this issue was excluded from this study.

5 Methodology

The study is based on the articles published in the Journal of Advances in Library and Information Science (JALIS) for the period of 5 years i.e., 2012-2016. The data for the study was downloaded from the website (www.jalis.in) in which 251 articles were retrieved from 5 volumes and the data was analysed by using MS Excel. The data interpretation was done based on the bibliometric parameters like volume wise analysis, authorship pattern, geographically distribution of contributions and contributors, the ranking of the contributors, reference distribution and authorship pattern of references.

6 Data Analysis

6.1 Volume wise distribution of articles

Table-1 and figure1A & 1B describe the volume wise distribution of articles in JALIS in which 251 articles were published during the period of study (2012-2016) and reveal that total 251 articles are published in 5 years with an average articles per issue of 13.21 and also found that in the year 2015 JALIS published highest 62 (24.70%) articles with 15.5 Average articles per issue, followed by 2014 with 59 (23.51%) articles with average articles per issue of 14.75 and 2016 with 47 (18.73%) articles with average articles per issue 15.66. The lowest average of the published articles in 2012 is 9.5. The publishing of articles is increasing every year. The average article per issue is highest in 2016 with 15.66 article per issue despite the fact that only 3 issues data was analysed in this particular year.

Table-1
Issues wise distribution of articles

Year	Vol. No.	Issues	Issue No. 1	Issue No. 2	Issue No. 3	Issue No. 4	Total Publications & (%)	Average Articles per Issue
2012	1	4	9	9	8	12	38 (15.13%)	9.5
2013	2	4	10	10	12	13	45 (17.93%)	11.25
2014	3	4	15	14	14	16	59 (23.51%)	14.75
2015	4	4	15	15	17	15	62 (24.70%)	15.5
2016	5	3	17	N/A*	14	16	47 (18.73%)	15.66
Total		19	66	48	65	72	251	13.21

*This issue was not accessible during the time of data collection

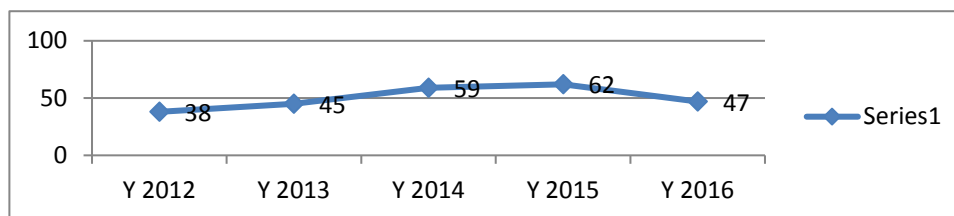


Figure-1A: Publication growth of JALIS during 2012-2016

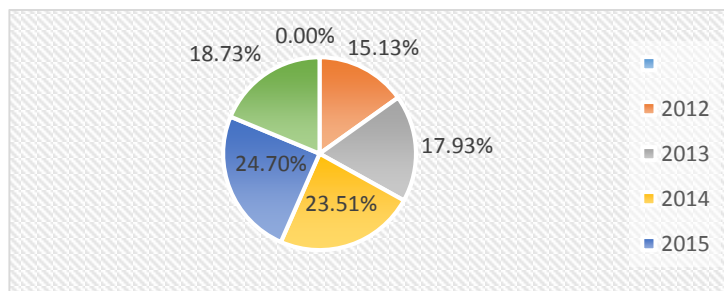


Figure-1B: Volume wise distribution of articles

6.2 Volume wise authorship pattern in published articles

The authorship pattern analysis is an important step in all bibliometric analysis which shows the collaborative publication trend of journal. Table 2 and figure 2 describes the volume wise authorship pattern of articles and after analysis it revealed that in last five years highest papers (145) published in two authors pattern, followed by single author (60) and three authors (41). It indicates that authors have published more collaborative articles (76.09%) than single authors (23.90%) publications.

Table 2
Authorship pattern of articles

Year	Vol. No.	Single Author	Two Authors	Three Authors	Four Authors	Total
2012	1	10	20	8	0	38
2013	2	10	24	10	1	45
2014	3	17	31	9	2	59
2015	4	14	38	8	2	62
2016	5	9	32	6	0	47
Total		60	145	41	5	251

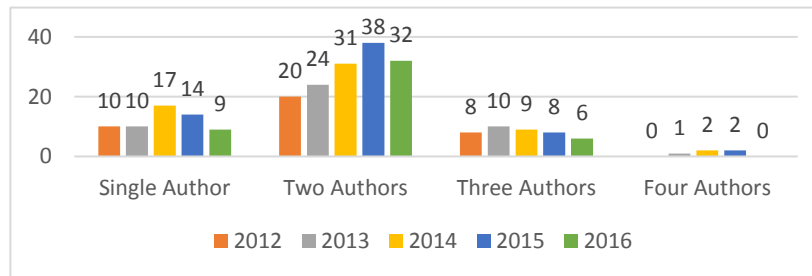


Figure-2: Authorship pattern of articles

6.3 Issue wise distribution pattern of authors in published articles

Table-3 depicts the issue wise articles distribution pattern of papers and authors during the period of study and it found that issue no 4 got highest number 72 (28.68%) articles in five years, while issue no. 1, 2 & 3 have almost similar number of papers during the period of study. Further in authorship analysis, it was found that joint authorship pattern is most common and 57.77% of total published paper were published as joint author publication, followed by single author (23.90%) and three authorship (15.33%) in the period of study.

Table-3
Issue wise article distribution pattern of authors

Sl. No.	Author Type	Distribution Issue wise				Total Articles & (%)	Cumulative Articles & (%)
		Issue No. 1	Issue No. 2	Issue No. 3	Issue No. 4		
1	Single	21	11	14	14	60 (23.90%)	60 (23.90%)
2	Two	29	27	43	46	145 (57.77%)	205 (81.67%)
3	Three	14	7	8	12	41 (16.33%)	246 (98.01%)
4	Four	2	3	0	0	5 (1.99%)	251 (100%)
Total		66	65	65	72	251	

6.4 Geographical distribution of contributions and contributors

Table 4 and Figure 3 gives a clear picture of the geographical distribution of contributions and contributors during the period of study (2012-2016) and arrange the ranking accordingly based on the contributions and the number of contributors from a particular country. It revealed that total of 266 articles were contributed by 479 authors in JALIS during the period of study and India contributed maximum 258(96.99%) articles with 460 (96.03) contributors, followed by Nigeria with 5 (1.88) contributions & 14 (2.92) contributors and United Arab Emirates with 2 (0.76) contributions & 2 (0.42) contributors.

Table-4
Geographical distribution of contributions and contributors

Sl. No.	Name of the Country	Total No. of contributions & (%)	Total No. of contributors & (%)	Rank
1	India	258 (96.99%)	460 (96.03%)	1
2	Nigeria	5 (1.88%)	14 (2.92%)	2
3	United Arab Emirates	2 (0.76%)	2 (0.42%)	3
4	Espana	1 (0.38%)	3 (0.63%)	4
Total		266	479	

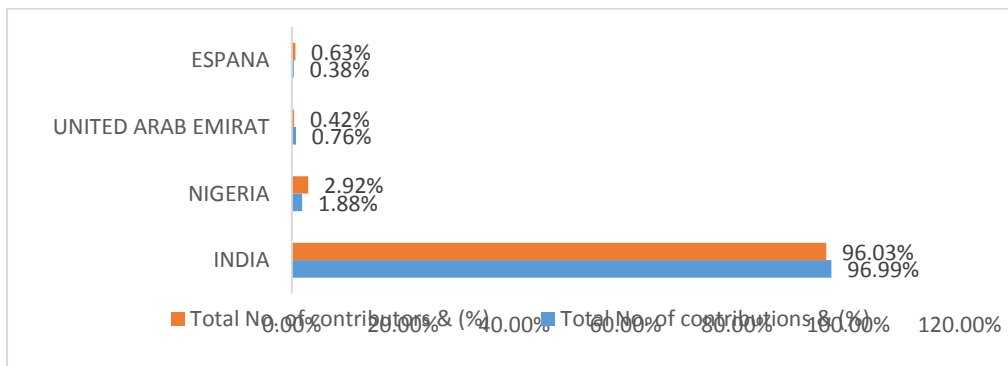


Figure-3: Geographical distribution of contributions and contributors

6.5 State wise contribution of articles from India along with authorship pattern

Table 5 gives a clear picture of state-wise contribution of articles from India along with authorship pattern for the reason India being the host country, a total 258 articles were retrieved from India as such, maximum number of contributions made to the journal during the period of

study is from Tamilnadu with 184 (71.32%) contributions and 356 contributors, followed by Karnataka with 23 (8.91%) contributions and 38 contributors and Andhra Pradesh & Maharashtra with 9 (3.49%) contributions & 11 contributors. The total contribution from indian states are also shown in figure 4.

Table-6
State wise contribution of articles from India along with authorship pattern

Sl. No.	Name of the State	Single Author	Two Authors	Three Authors	Four Authors	Total Contribution & (%)	Total Contributors
1	Tamilnadu	35	115	31	3	184 (71.32%)	356
2	Karnataka	4	13	4	2	23 (8.91%)	38
3	Andhra Pradesh	4	4	0	1	9 (3.49%)	11
4	Maharashtra	5	4	0	0	9 (3.49%)	11
5	Aligarh,	0	2	2	0	4 (1.55%)	10
6	Puducherry	1	4	2	0	7 (2.71%)	8
7	Mizoram	1	2	0	0	3 (1.16%)	5
8	Gujarat	0	1	1	0	2 (0.77%)	4
9	Kerala	2	3	0	0	5 (1.93%)	4
10	Punjab	2	1	0	0	3 (1.16%)	3
11	Haryana	1	1	0	0	2 (0.77%)	3
12	UP	1	1	0	0	2 (0.77%)	2
13	New Delhi	1	1	0	0	2 (0.77%)	2
14	Rajasthan	0	1	0	0	1 (0.39%)	1
15	Srinagar	1	0	0	0	1(0.39%)	1
16	Uttarakhand	0	1	0	0	1(0.39%)	1
	Total	58	154	40	6	258 (100%)	460

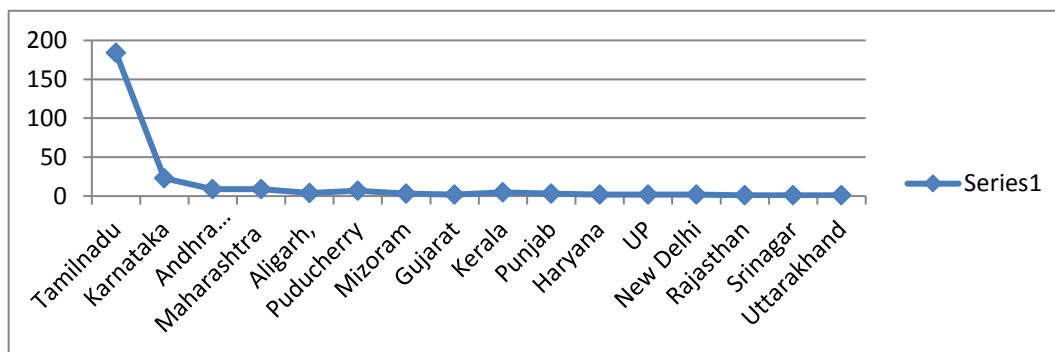


Figure-4: State wise contribution of articles

6.6 Major contributors and pattern of article distribution

Table 6 shows the major contributors and pattern of article distribution and indicated that the most productive author was S. Gopalakrishnan who contributed a maximum number of articles constituting 15(18.75%) , second most productive author was M. Nagarajan with 12 (15%) and S.Mohamed Esmail 10 (12.5%) in JALIS journal during the period of study.

Table-6
Major contributors and pattern of article distribution

Sl. No.	Author Name	Single author	Two Authors	Three Authors	Four Authors	Total contribution & (%)	Rank
1	S.Gopalakrishnan	0	9	5	1	15 (18.75%)	1
2	M.Nagarajan	2	4	5	1	12 (15.00%)	2
3	S.Mohamed Esmail	0	8	2	0	10 (12.5%)	3
4	N.Amsaveni	0	6	1	1	8 (10.00%)	4
5	R.Jeyshankar	1	7	0	0	8 (10.00%)	5
6	S.Dhanavandan	1	4	0	0	5 (6.25)	6
7	S. Ravi	3	1	1	0	5 (6.25%)	7
8	Gururaj S.Hadagali	1	3	0	1	5 (6.25%)	8
9	M.Tamizhehelvan	0	3	1	0	4 (5.00%)	9
10	M.Selvi	1	3	0	0	4 (5.00%)	10
11	C. Ranganathan	2	2	0	0	4 (5.00%)	11
Total		11	50	15	4	80	

6.7 Reference distribution pattern

Table 7 depicts the reference distribution pattern of articles in JALIS and found that the total 2360 references were cited in 251 articles with an average reference per article of 9.4 during the period of study and Issue no. 4 recorded highest references (697), followed by Issue no. 3 (640) and Issue no. 1 (630) while issue no 2 have least number of references in overall.

Table -7
Reference distribution pattern

Year	Vol. No.	No. of Articles	No. of references (Issue wise)				Total references (%)	Cumulative references (%)	Average Ref. per Article
			Issue No. 1	Issue No. 2	Issue No. 3	Issue No. 4			
2012	1	38	61	57	56	77	251 (10.64%)	251 (10.64%)	6.61
2013	2	45	52	52	87	127	318 (13.47%)	569 (24.11%)	7.01
2014	3	59	133	127	180	180	620 (26.27%)	1189 (50.38%)	10.51
2015	4	62	152	157	148	185	642 (27.20%)	1831 (77.58%)	10.35
2016	5	47	232	NP	169	128	529 (22.42%)	2360 (100%)	11.26
Total		251	630	393	640	697	2360		9.4

6.8 Authorship pattern in references

Table-8 shows the authorship pattern in references of articles published in JALIS and after analysis it revealed that out of total cumulative 2360 references, 984 references were found single author which was highest in total, followed by two authors 715 (30.30%) and three authors 291 (12.33%) references as independently while in overall, analysis indicates that authors have cited joint collaborative articles more (48.26%) than single author (41.69%) and organization (9.83%). The table also described references which are not accessible/found are (0.21%).

Table 8
Authorship pattern in references

Sl. No.	Authors Type	Distribution of references Issue wise				Total references (%)	Cumulative references (%)
		Issue No. 1	Issue No. 2	Issue No. 3	Issue No. 4		
1	Single	266	168	279	271	984 (41.69%)	984 (41.69%)
2	Two	192	114	189	215	715 (30.30%)	1699 (71.99%)
3	Three	75	44	84	93	291 (12.33%)	1990 (84.32%)
4	Four	23	19	26	14	82 (3.47%)	2072 (87.80%)
5	Five	5	3	7	7	22 (0.93%)	2094 (88.73%)



6	Six	1		1	1	3 (0.13%)	2097 (88.86%)
7	More than Six	18	3	3	2	26 (1.10%)	2355 (99.79%)
8	Organization	48	42	51	91	232 (9.83%)	2329 (98.69%)
9	Not accessible/ Found	2	-	-	3	5 (0.21%)	2360 (100%)
	Total	630	393	640	697	2360	

7 Findings and Conclusion

Mapping of publication trend shows the analysis of publication pattern. Bibliometric study is one of the established area in LIS research to conduct such type of study. Many qualitative study have been conducted to find out the mapping of LIS research trends in India and abroad too. JALIS is an online journal and in last five years there is a significant growth in number of publications. There are total 251 paper published during five years and majority of publications are in collaborative authorship pattern rather than single author. The majority of contributions are from India and only less than 4% contribution from out the country. Tamilnadu being the host State of the journal emerged the top most state in JALIS contribution and S.Gopalakrishnan is the most productive author during 2012 to 2016 with 15 publications. Total 2360 references were cited in 251 articles with 9.4, an average reference per article in last five years in JALIS and here also author cited more collaborative contributions than single contribution in their articles.

References

Bansal, A. (2013). DESIDOC Journal of Library & Information Technology: A Bibliometric Analysis. *DESIDOC Journal of Library and Information Technology*, 33(5), 412-417.

Brahma, K., and Verma, M. K. (2017). Web Citation behaviour in SRELS journal of information management: *DESIDOC journal of library and information technology*. In *Transforming Library*, Ed. Sanjay Kumar Singh et al., Guwahati: MRB publishers, 956-962.

Das, T. K. (2013). A bibliometric analysis of contributions in the journal Library Trends. *Library Philosophy and Practice* (e-Journal). Available on <http://digitalcom.mons.unl.edu/libphilprac/1014>.

Desmukh, P. P. (2011). Citations in Annals of Library and Information Studies during 1997 to 2010. *Annals of Library and Information Studies*, 58 (4), 355-361.

Dixit, S. and Katare, V. (2007). A bibliometric analysis of the Journal of the Indian Society for Cotton Improvement (1995-2004). *Annals of Library and Information Studies*, 54 (2), 119-123.

Gautam, M. and Verma, M. (2014). Bibliometric analysis of SRELS Journal of Information Management (2000-2013). *IOSR Journal of Humanities and Social Science*, 19(7), 96-102.



Gudodagi, S. C. and Manjunatha. (2014). PEARL - A Journal of Library and Information Science, a bibliometric study. *E-Library Science Research Journal*, 2(11), 1-5. Available on https://figshare.com/articles/PEARL_A_Journal_of_Library_and_Information_Science:_A_Bibliometric_Study/1201285

Kumar, S., Mondol, A.K. and Verma, M.K. (2013). Citation Analysis of Journal of Creative Behavior: A Critical Study. *International Journal of Information Research*, 2 (3), 326-338.

Ramasamy, K (2017). Mapping the research output of Journal of Bioscience and Bioengineering (2007-2016): A single Journal Scientometric study. *Library Philosophy and Practice* (e-journal). Article no.1586. Available on- <http://digitalcommons.unl.edu/libphilprac/1586>

Vellaichamy, A and Jeyshankar,R (2015). Bibliometric analysis of the Journal Webology from 2004-2013. *Journal of Advances in Library and Information Science*, 4 (1), 7-13.