

---

## Journal of Academic Librarianship: A Bibliometric Analysis

Sunaina Khanna

Jivesh Bansal

Seema Sood\*

Deepika Tiwari

A.C. Joshi Library

Panjab University

Chandigarh

\*(Corresponding author)

Seema.sood1@gmail.com

### Abstract

This bibliometric study is focused on the findings of ‘Journal of Academic Librarianship’ (JAL) during the period 2007-2016. Web of Science Citation database is used and 656 articles retrieved are analyzed on diverse parameters i.e. chronological distribution of articles, length of articles, authorship and citation pattern etc. More than half of the articles are published under joint authorship and average degree of collaboration is 0.56. A very large majority of articles (89.85 percent) is published by USA and top 14 countries published 94.36 percent articles in JAL from 2007-16. The most prolific authors are K. Coyle and G. Little with 9 articles each and highest contributed institutions are California State University System and University of Illinois System with 21 and 16 articles respectively. The average citation per paper is 4.35 and 8 papers received 31 and above citations.

**Keywords:** Bibliometrics, Scientometrics, Academic librarianship, Authorship pattern, Journal productivity, Citation analysis

### 1 Introduction

Bibliometrics is the application of quantitative techniques to analyze the volume, the movement and the characteristics of the published documents, related activities and helps in the measurement of the pattern of all form of recorded information and their procedures. Bibliometric techniques are applied to measure the impact of scholarly publications and to determine the influence of a single author or to describe the correlation between two or more authors or works. Alan Pritchard (1969) coined the term Bibliometrics and defined as, “the application of mathematics and statistical methods to books and other media of communication”.

Journal of Academic Librarianship (JAL), an Elsevier publication is an international refereed and peer-reviewed academic journal. The journal started its publication in the year 1975 and 42 volumes have been published. It is a bimonthly publication that publishes book reviews, analytical articles, and bibliographic essays. It contains articles that focus on the issues which are related to college and university libraries. It

is a forum for authors to present research findings, their practical applications, analyze policies, practices, and emerging trends in the future of academic librarianship. The journal is abstracted and indexed in Scopus, LISA, Social Sciences Citation Index, Sociological Abstracts, ASLIB etc.

## 2 Literature Review

A number of bibliometric studies had been undertaken on various 'Library and Information Science' journals. Hydar Ali, Mahadevamurthy and Jagadeesha (2015) conducted a bibliometric study of all types of publications of JAL from 1999-2016 and observed that 47.81 percent were 'Articles' in JAL. The highest number of publications was in the year 1999 and there was a sharp decrease in growth rate from 1999 to 2007. A large majority of documents i.e. 72.91 percent were single authored. "Academic libraries" and "Information Literacy" were the frequently used keyword with their occurrence in 30 and 27 publications respectively.

Jayaprakash (2015) did bibliometric analysis of 781 publications on the topic of 'cloud computing' from the year 2000-2014 in the journals of 'Emerald Publications'. The single author articles are the highest. Library Hi Tech News and Library Hi Tech contains the majority of the literature on cloud computing. Awasthi (2015) analysed 261 articles published in the journal 'Library Trends' from 2008-2014. The study revealed that in Summer and Winter issues the maximum numbers of articles were being published. Single authors had been contributing more than the joint authors. Maximum number of articles was of 11 to 21 page length.

Singh and Harish Chander (2014) evaluated 336 articles published, in the 'Library Management' journal for the period 2006-2012. USA, UK, Australia, China, India, Canada, etc. were the major countries with higher contribution. Majority of the papers were by single author (56.55 percent) followed by 29.17% by two authors. Sudha Rani (2014) investigated the scholarly communications in 'PEARL: A Journal of Library and Information Science' for the period 2007-2012. The study concluded that journal contained articles both from India and foreign countries. Two authored articles were found the highest, followed by single and three authored articles. The average degree of collaboration is 0.61. Roy and Basak (2013) studied the bibliometric pattern of research articles in 'Journal of Documentation' from 2005-2010. The study revealed that majority of papers were multi-authored, the degree of collaboration is 0.51, and contribution by U.K. was the highest. The average citation per paper is 43. Satpathy et al. (2013) investigated the articles in top ten open access journals of Library & Information science indexed in Scopus database in 2011. Most of the papers were contributed by single authors followed by two-authored and three-authored papers. The degree of collaboration is between 0.33 and 0.8. In terms of country productivity ranking, USA was at the top level.

### 3 Objectives

The basic objectives of the study are to analyze the articles and their citations for assessment of JAL from 2007-2016.

- To study issue-wise distribution and authorship pattern of articles.
- To examine degree of collaboration and most prolific authors.
- To measure the distribution of publication by citations.
- To find out the length of articles and geographical distribution of articles.
- To find out the highly contributing institutions.

### 4 Methodology

The articles of the source journal JAL for the period 2007-2016 had been selected for the study. In the ‘Web of Science’ citation database, search strategy used for collecting data was as follows:

“Publication Name = Journal of Academic Librarianship; Publication Year=2007-2016”.

This retrieved 656 articles, 426 book reviews, 124 editorial material, 12 reviews, 7 corrections, 6 letters, 1 bibliography and 1 bibliographical item.

Keeping in view the objectives, a total of 656 articles retrieved from the citation database were taken for the study. The required data regarding the published articles i.e. total number of contributions, authors, references, length of pages, geographical distribution and citations etc. was recorded into MS- Excel worksheet for processing and further analysis.

### 5 Data Analysis and Discussion

#### 5.1 Year-wise distribution of Articles

The distribution of 656 articles in the JAL from the year 2007-2016 is presented in Table 1. The maximum number of articles were published in the year 2015, (95, 14.48 %) followed by 2016 (84, 12.80 %) and 2014 (73, 11.13 %). In 2012, only 43 (6.56 %) papers were published by JAL which was a minimum number during the period under study.

Table 1  
Growth of Publications Year-Wise

Year	Volume No.	Issue No.	TP	% age
2007	33	6	71	10.82
2008	34	6	53	8.08

2009	35	6	54	8.23
2010	36	6	56	8.54
2011	37	6	56	8.54
2012	38	6	43	6.56
2013	39	6	71	10.82
2014	40	6	73	11.13
2015	41	6	95	14.48
2016	42	6	84	12.80
Total			656	100

### 5.2 Issue-Wise Distribution of Articles

Table 2 highlights the issue wise distribution of articles in the JAL. By cumulating the specific issues (E.g. Issue no. 1 of 2007-16), it revealed that the issue no. 6 published the highest number of articles (129), followed by no.3 (117), 5 (109) and no.1 (105). The lowest numbers of articles were in issue no. 2 & 4 (98). The issue no. 39(6) and 40(3) published 25 articles in each, which was the maximum number in a single issue in JAL during 2007-16.

Table 2  
Issue-Wise Distribution of Articles

Year	Vol No.	Issue No.						Total
		1	2	3	4	5	6	
2007	33	15	15	10	11	10	10	71
2008	34	7	7	11	10	8	10	53
2009	35	8	8	9	10	9	10	54
2010	36	8	9	9	10	8	12	56
2011	37	11	10	8	10	8	9	56
2012	38	7	6	8	5	6	11	43
2013	39	13	10	11	4	8	25	71
2014	40	9	13	25	0	14	12	73
2015	41	14	10	16	19	21	15	95
2016	42	13	10	10	19	17	15	84
<b>Total</b>		<b>105</b>	<b>98</b>	<b>117</b>	<b>98</b>	<b>109</b>	<b>129</b>	<b>656</b>

### 5.3 Authorship Pattern of Articles

Table 3 shows the authorship pattern of the articles. The single author articles were highest in JAL i.e. 289 (44.05 percent), followed by two authors (205 articles, 31.25 percent), three authors (107 articles, 16.31 percent). The 34 articles (5.18 percent) were published under the joint authorship of four authors, and only 21 articles (3.20 percent) were under the joint authorship of five and more authors in JAL during 2007-16. In total, 55.95 percent articles were under joint authorship in JAL from 2007-16. This shows an upward trend towards collaborative research.

Table 3  
Authorship Pattern of Articles

Year	Single	Two	Three	Four	Five & above	Total
2007	42	12	12	3	2	71
2008	29	18	6	--	---	53
2009	25	17	8	3	1	54
2010	26	15	11	3	1	56
2011	27	20	7	2	---	56
2012	15	17	7	2	2	43
2013	30	25	10	5	1	71
2014	33	23	14	1	2	73
2015	36	29	16	9	5	95
2016	26	29	16	6	7	84
Total	289	205	107	34	21	656

In order to find the degree of collaboration, the formula suggested by Subramanyam has been used (1982). The formula is given below:

$$\text{Degree of collaboration } C = N_m / (N_m + N_s)$$

C= Degree of collaboration

N<sub>m</sub>= Number of multiple authors

N<sub>s</sub>= Number of Single authors

Fig-1: Degree of Collaboration Year-Wise

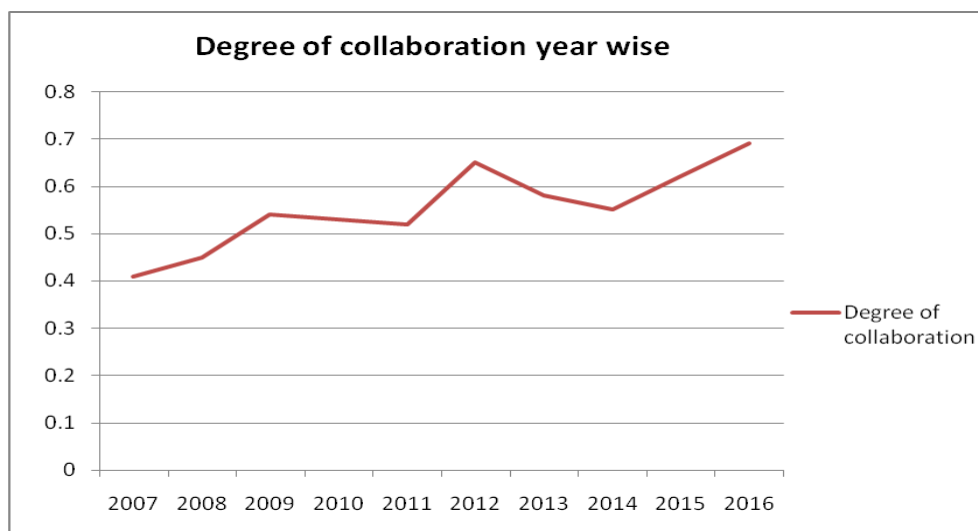


Table 4 shows the tendency of single and joint authorship in the JAL during 2007-2016. The degree of collaboration had increased over the years and in the range from 0.41 to 0.69, even though there were fluctuations in degree of collaboration and was highest in the year 2016 (0.69). The average degree of collaboration was 0.56 during the period under study.

Table 4  
Degree of Collaboration Year-Wise

Year	Single authored papers (N <sub>s</sub> )	Multi authored papers (N <sub>m</sub> )	Degree of Collaboration ( C )
2007	42	29	0.41
2008	29	24	0.45
2009	25	29	0.54
2010	26	30	0.53
2011	27	29	0.52
2012	15	28	0.65
2013	30	41	0.58
2014	33	40	0.55
2015	36	59	0.62
2016	26	58	0.69
Total	289	367	0.56

#### 5.4. Length of Articles

Table 5 shows the page length of articles in 60 issues and 656 articles published in JAL. A good majority of articles (424 articles, 64.63 percent) were published within the page length of 6-10. The 118 articles (17.99 percent) were in the page range of 1-5, followed by 102 articles (15.55 percent) within the page range 11-15, and 10 articles (1.52 percent) were published within the page range of 16-20. Only 2 articles were 21 & above pages in JAL during 2007-16.

Table 5  
Length of Articles

Pages	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
1-5	17	9	5	11	11	12	18	9	16	10	<b>118</b>
6-10	37	36	37	36	38	24	44	56	61	55	<b>424</b>
11-15	17	8	12	7	6	4	8	8	13	19	<b>102</b>
16-20				2	1	3			4		<b>10</b>
21 and above							1		1		<b>2</b>
Total	71	53	54	56	56	43	71	73	95	84	656

### 5.5 Prolific Authors

A rank list of authors is prepared in terms of contributions of articles in JAL during 2007-16 (Table 6). The most prolific authors were Coyle, K. and Little, G. who topped the list with contribution of 9 articles each, followed by Dougherty, W.C. with 8 articles (2<sup>nd</sup> rank) and Stewart, C. with 7 articles (3<sup>rd</sup> rank). Nicholas, D., Noh, Y., Pinto, M., Saunders, L. and Sin, SCJ were on 4<sup>th</sup> rank in JAL during 2007-16 in terms of productivity. Nine authors were ranked at 5<sup>th</sup> position with 4 articles each, 11 authors at 6<sup>th</sup> position with 3 articles each and 93 authors at 7<sup>th</sup> position with 2 article each in JAL during 2007-16. The 964 authors had been at bottom position i.e. at 8<sup>th</sup> rank with a contribution of only one article.

Table 6  
Most Prolific Authors

Name of the Author	Total Papers (TP)	%age	Rank
Coyle K	9	1.37	I
Little G	9	1.37	I
Dougherty WC	8	1.22	II
Stewart C	7	1.07	III
Nicholas D	5	0.76	IV
Noh Y	5	0.76	IV
Pinto M	5	0.76	IV
Saunders L	5	0.76	IV
Sin SCJ	5	0.76	IV
Berg SA	4	0.61	V
Cassidy ED	4	0.61	V
Henry RL	4	0.61	V
Jamali HR	4	0.61	V
Lo P	4	0.61	V
Luo LL	4	0.61	V
Oakleaf M	4	0.61	V
Tang YQ	4	0.61	V
Zhang L	4	0.61	V
11 authors 3 papers each	33		VI
93 authors 2 papers each	186		VII
964 authors 1 paper each	964		VIII
<b>1086 authors</b>	<b>1277</b>		

### 5.6 Geographical Distribution of Articles

Table 7 shows the country's research in terms of productivity count during 2007-2016. The 48 country's research contributed a total of 656 articles and article count was 694 in collaboration as indicated in the table. Out of total 656 contributions, top 14 countries contributed 619 (94.36 percent) articles and remaining 34 countries contributed 37 (5.64 percent) articles. It has been observed that USA was the most productive country with 439 publications followed by Canada with 45, China with 28 and Spain with 18 publications.

Table 7  
Geographical Distribution of Articles

Country	No. of articles	Cumulative	%age
USA	439	439	66.92
CANADA	45	484	6.86
CHINA	28	512	4.27
SPAIN	18	530	2.74
AUSTRALIA	13	543	1.98
SOUTH KOREA	13	556	1.98
ENGLAND	11	567	1.67
TAIWAN	9	576	1.37
TURKEY	9	585	1.37
INDIA	8	593	1.22
NEW ZEALAND	7	600	1.07
SOUTH AFRICA	7	607	1.07
IRAN	6	613	0.92
NIGERIA	6	619	0.92
4 countries 5 articles each	20	639	0.76
3 countries 4 articles each	12	651	0.61
4 countries 3articles each	12	663	0.46
8countries 2 articles each	16	679	0.30
15 countries 1articles each	15	694	0.15

### 5.7 Distribution of Articles by Citations

Out of the total 656 publications in the JAL during 2007-16, 24.39 percent (160 publications) did not get any citation till May 25, 2017. The remaining 75.61 percent publications received one or more citations. The 63.41 percent (416 publications received 1 to 10 citations) registered 48.58 percent of total citations. The 10.98 percent (72 publications received 11 to 30 citations) comprised 40.73 percent citation share and remaining 1.22 percent (8 publications received 31 and above citations) received 10.69 percent citation share in JAL during 2007-16. (Table8)

Table 8  
Distribution of Publications by Citations

Range of	TP	%TP	TC	%TC
----------	----	-----	----	-----



Citations				
0	160	24.39	0	0
1-10	416	63.41	1386	48.58
11-20	57	8.69	787	27.59
21-30	15	2.29	375	13.14
31 & above	8	1.22	305	10.69
<b>Total</b>	<b>656</b>	<b>100</b>	<b>2853</b>	<b>100</b>

### 5.8 Distribution of Articles by Institution

The highest number of contribution was 21 articles (3.20 percent) by California State University System. University of Illinois System contributed 16 articles (2.44 percent) in JAL followed by Pennsylvania Commonwealth System of Higher Education with 15 articles (2.29 percent). State University System of Florida and University of Illinois Urbana Champaign contributed 13 articles each in JAL during the period under study. Three institutions i.e. Penn State University, Simmons College and University of Colorado System contributed 12 articles each. The other major contributions were by Concordia University Canada, Indiana University System and University of Wisconsin System i.e. 11 articles by the each institution. One institute contributed 10 articles and three more institutes 9 articles in JAL during 2007-16. All other institutes published less than 9 articles during the period under study.

S.N.	Institute	No. of Papers	Percentage
1	CALIFORNIA STATE UNIVERSITY SYSTEM	21	3.20
2	UNIVERSITY OF ILLINOIS SYSTEM	16	2.44
3	PENNSYLVANIA COMMONWEALTH SYSTEM OF HIGHER EDUCATION PCSHE	15	2.29
4	STATE UNIVERSITY SYSTEM OF FLORIDA	13	1.98
5	UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN	13	1.98
6	PENN STATE UNIVERSITY	12	1.83
7	SIMMONS COLLEGE	12	1.83
8	UNIVERSITY OF COLORADO SYSTEM	12	1.83
9	CONCORDIA UNIVERSITY CANADA	11	1.68
10	INDIANA UNIVERSITY SYSTEM	11	1.68
11	UNIVERSITY OF WISCONSIN SYSTEM	11	1.68
12	VIRGINIA POLYTECHNIC INSTITUTE STATE UNIVERSITY	10	1.52
13	UNIVERSITY OF MICHIGAN	9	1.37
14	UNIVERSITY OF MICHIGAN SYSTEM	9	1.37
15	University System of Maryland	9	1.37

## 6 Findings and Conclusion

1. The JAL is an international journal of repute and published on an average 66 research papers per year in the period under study.
2. It has been observed that most of the issues contain less than 15 articles in the JAL. Some issues contain more than 15 articles and issue no. 39(6) and 40(3) contains 25 articles each which is maximum in the time period under study.
- 3 More than half of the articles i.e. 55.95 percent are contributed under joint authorship and average degree of collaboration is 0.56 percent.
4. More than sixty percent (64.63 percent) articles in the journal are in 6-10 pages. It clears that this is an ideal range for publishing an article in the JAL during 2007-16.
5. The authors K Coyle and G Little have published 9 articles each from 2007-16. This is the maximum contribution by a single author in JAL.
6. A very large percentage of articles (66.92 percent) is from a single country i.e. USA. Fourteen countries have 94.36 percent contribution in the journal from 2007-16. India is on 10<sup>th</sup> rank with 8 articles published in JAL during 2007-16.
7. The eight publications are in the highly cited category by getting 31 and above citations registering 10.69 percent of the total citation share. The 24.39 percent articles do not get any citation till May 25, 2017.
8. The maximum number of contribution by a single institution is by California State University System with 21 articles, followed by University of Illinois System with 16 articles.

‘Journal of Academic Librarianship’ is an international refereed and peer-reviewed academic journal in the field of Library and Information Science. The maximum contribution is by developed nations and a very large contribution by a single country i.e. USA. JAL publishes articles on various aspects of academic librarianship covering information literacy, higher education libraries, e-resources & services, information seeking, user instruction, faculty issues, etc.

## References

- Awasthi, S (2015). Library Trends Journal: A Bibliometric Study, International Journal of Scientific and Research Publications, 5(9) Retrieved on September 20, 2017 <http://www.ijsrp.org/research-paper-0915/ijsrp-p4546.pdf>
-



Hydar A, Mahadevamurthy, M and Jagadeesha, B M (2015). A bibliometric analysis of the Journal of Academic Librarianship. *International Journal of Academic Librarianship*. 5(4). Retrieved on September 20, 2017 [http://www.ijlis.org/img/2015\\_Vol\\_5\\_Issue\\_4/83-90.pdf](http://www.ijlis.org/img/2015_Vol_5_Issue_4/83-90.pdf)

Jayaprakash (2015). Bibliometric Analysis of Literature Published in Emerald Journals on Cloud Computing, . *IJCEM International Journal of Computational Engineering & Management*, 18 (1) Retrieved on May 16, 2017 [http://www.ijcem.org/papers012015/ijcem\\_012015\\_05.pdf](http://www.ijcem.org/papers012015/ijcem_012015_05.pdf)

Pritchard A. (1969). Statistical bibliography or bibliometrics. *Journal of Documentation*, 25 (4), 348-349. Retrieved on September 20, 2017.

Roy, S B and Basak, M.(2013). Journal of documentation: a bibliometric study Library philosophy and practice (e-journal). 945. Retrieved on May 5, 2017 <http://digitalcommons.unl.edu/libphilprac/945>

Satpathy, S. K, Maharana, R.K and Das, A.K, (2013}. Open source journals of library and information science: a bibliometric study. *Collection Building*, 33(1),15-20. Retrieved on May 12, 2017 <http://www.emeraldinsight.com/doi/full/10.1108/CB-09-2013-0031>

Singh, K.P. and Chander, H. (2014). Publication trends in library and information science: A bibliometric analysis of Library Management journal. *Library Management*, 35(3), 134-149

Sudha Rani, Y. (2014). Bibliometric Analysis of PEARL, a Journal of Library and Information Science, PEARL - A Journal of Library and Information Science. 8 (3), 151-154. Retrieved on May 8, 2017 <http://www.10.5958/0975-6922.2014.00737.2>

<https://www.journals.elsevier.com/the-journal-of-academic-librarianship> Retrieved on May 15, 2017)

[https://en.wikipedia.org/wiki/The\\_Journal\\_of\\_Academic\\_Librarianship](https://en.wikipedia.org/wiki/The_Journal_of_Academic_Librarianship) (Retrieved on May 17, 2017)

<https://www.elsevier.com/journals/the-journal-of-academic-librarianship/0099-1333?> (Retrieved on May 16, 2017)