

A Comparative Scientometric Analysis on Contribution of Two Library and Information Science Journals in India during 2014-2017

OPEN ACCESS

Volume: 6
Issue: 1
Month: July
Year: 2018
ISSN: 2321-788X
Received: 21.07.2018
Accepted: 24.07.2018
Published: 30.07.2018

Citation:
Suresh, B., et al. "A Comparative Scientometric Analysis on Contribution of Two Library and Information Science Journals in India during 2014-2017." *Shanlax International Journal of Arts, Science and Humanities*, vol. 6, no. 1, 2018, pp. 1–6.

DOI:
<https://doi.org/10.5281/zenodo.1319608>

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Abstract

This study makes a comparative analysis of various parameters on the two library and information science journals for the period of 2014 to 2017. The two journals are International Journal of Library and Information Studies (IJLIS) and International Journal of Digital Library Services (IJODLS). The current study has done to access the comparative literature growth through various patterns such as comparison of year-wise distribution and issue-wise distribution of articles, comparison of authorship pattern, comparison of the degree of collaboration among authors and comparison of the length of articles. The current study discovered that IJLIS journal had published 371 articles and IJODLS journal have published 200 articles during the study period. It was found that IJLIS journals have published more articles than IJODLS journal during the study. It was found that two authors were published more articles in both the journals. It is also revealed that the average of both the journals has more or less similar degree of collaboration among authors. It was found that both the journals have encouraged the authors in the field of library and information science by publishing the good number of original, standard and quality articles.

Keywords: Scientometrics Study, Comparative analysis, Authorship Pattern, IJODLS, IJLIS, Library and Information Science

Introduction

IJLIS is an open access online library and information science journal quarterly published by ULAAP, Hyderabad, India. The International Journal of Library & Information Studies (IJLIS) have started its publication from the year of 2011 onwards. It is started by the pearl – a journal of library and information science founders. This journal encourages the authors to publish their original research work for the enhancement of library and information science practice and also promotes the education among the readers of the journal. International Journal of Library & Information Studies (IJLIS) currently publishing during March, June, September and December, i.e., four issues per year (Quarterly).

It is published in English language and currently, the journal got indexed in Indian Citation Index and Google Scholar and its impact factor is 2.8. IJODLS is an open access international peer reviewed journal in library and information science quarterly published by Geethanjali Research Publication, Punjab, India. International Journal of Digital Library Services has started its publication from the year of 2011 onwards. IJODLS is currently publishing four times per year. It is published in English language and currently the journal got indexed in Indian Citation Index, J-Gate, DOAJ, IJIF, I2OR, Cite Factor and Google Scholar. DOAJ encourage researchers to publish original research papers, reviews, opinions and survey reports should have quality, standard and original relevant to the subject. In the present study, the authors try to attempt to compare both the journals through various parameters to attain the research objectives.

Review of Literature

Some Scientometric and Bibliometric studies have been conducted during the several decades to assess the research productivity regarding literature growth, citations study, authors productivity and publication output. Some of the relevant studies have been discussed here to make the present study in the proper approach. Singh J.K (2014) have done a Scientometric analysis for 657 papers published in the Indian Journal of Pure and Applied Physics from 2006 to 2010 and found that maximum number of papers contributed in 2007 with 21.9218% and most of the papers contributed by joint authors with 93.6%. Singh J.K (2012) have conducted a research analysis on for 221 papers of Libri Journal from 2001 to 2009 and revealed that single author had contributed more i.e. nearly 124 papers with 56.10%. Velmurugan (2013) have researched 203 articles published during 2007 to 2012 in Annals of Library and Information Studies journal and revealed that most of the articles published by two authors with 43.35% and the degree of collaboration among authors are 0.82. Kunwar Singh et.al (2017) have conducted a scientometric analysis for 283 articles in year 2012-2016 for International Journal of Library and Information Studies and found the results that co-authors contributions is more with 157 articles (55.48%) than the single author contributions and

also 6-10 pages have dominated the length of articles in IJLIS with 62.19%. Rajendran et al. (2011) analyzed 633 articles published in the journal of scientific and industrial research for the period of 2005-2009 and found that the maximum numbers of research articles were contributed by multiple authors and the degree of collaboration among authors is 0.92. Hussain et al. (2011) have analyzed the electronic library journal for 578 articles from 2000 to 2010 and revealed that 269 articles published by the single author and 309 papers published by multiple authors and the degree of collaboration are 0.256. Sharma S and Kumar S (2017) have conducted comparative scientometrics for the articles published in the journals IJODLS and IJLIS for the period 2011 to 2014 for 287 articles and found both the journals published nearly 50%, i.e., IJLIS published nearly 142 articles with 49.48% and IJODLS published 145 articles with 50.52%. Lavanya P and Madhu M (2018) have done bibliometric study on ASLIB Journal of Information Management for the period of 2008-2017 and discovered that the highest number of articles were published in the year with 11.59% and the minimum number of articles were published with 9.32% in the year 2015, maximum number of articles having the page length between 16 to 20 pages, the majority of the articles published by two authors with 41.60% and also the author of collaboration is 0.83.

Objectives of the Study

The objectives of the current study which were covering both the journals of IJODLS and IJLIS for the period of 2014-2017 are i) To compare the year wise contribution of journals, ii) To compare the issue wise contribution of journals, iii) To compare the authorship pattern of journals, iv) To compare the collaboration pattern of authors of the journals, v) To compare the length of articles of the journals. Methodology In the current study, there were 200 articles from 4 volumes and 16 issues of International Journal of Digital Library Services (IJODLS) and 371 articles from 4 volumes and 16 issues of International Journal of Library & Information Studies for the period of 2011 – 2017 have been taken for making a study to achieve the objectives of the study. All the pertinent articles were accessed and downloaded from the IJLIS and IJODLS website.

The collected data were entered in the MS-Excel Sheets, so that it is easy to measure up the variables of the study such as issue wise distribution, year wise distribution, authorship pattern, degree of collaboration among authors, length of articles. After collecting the complete data, it was put into a table and analyzed to make understanding to attain results in respect of the avowed objectives. This study is to examine the scientometric analysis to compare between the International Journal of Library & Information Studies (IJLIS) and International Journal of Digital Library Services (IJODLS). We have done the analysis based on the available data for the period of 2014 to 2017 to compare the year wise and issue wise distribution of articles in the journals, authorship pattern in the journals, degree of collaboration among the authors of the journals, length of the articles of the journals.

Discussions and Analysis of Objectives

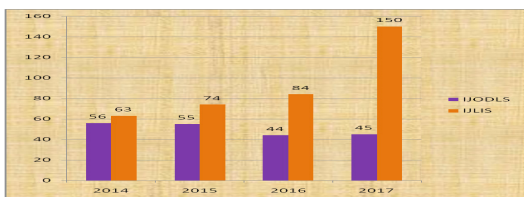
Year wise distribution of articles

Table 1 and Figure 1 illustrate the comparison of a year of distribution of articles in both the International Journal of Library & Information Studies (IJLIS) and International Journal of Digital Library Services (IJODLS). During the period of study of 2014-2017, IJLIS journal was published 371 articles in 4 volumes and IJODLS journal was published 200 articles in 4 volumes. It was found that IJLIS journal has published more articles than IJODLS journal with the increase of 85.50%. During the period of study, IJLIS journal has published the maximum of 150 articles with 40.43% in the year 2017 and IJODLS journal has published the minimum of 44 articles with 22.00% in the year 2016.

Table 1 Year-Wise Distribution of Articles

Year	No. of Issues	Number of articles		Percentage	
		IJODLS	IJLIS	IJODLS	IJLIS
2014	4	56	63	28.00	16.98
2015	4	55	74	27.50	19.95
2016	4	44	84	22.00	22.64
2017	4	45	150	22.50	40.43
Total		200	371	100.00	100.00

Chart 1: Year-Wise Distribution of Articles



Issue-wise distribution of articles

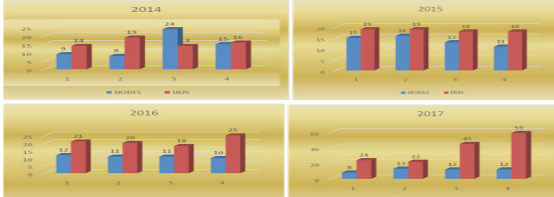
Table 2 and Figure 2 represent the comparison of the issue – wise distribution of articles for both IJLIS and IJODLS journals. It was discovered that Vol.4 with Issue No. 4 of IJLIS journal has a high number of articles published in the year 2017 with 59 articles and IJODLS journal has the lowest number of articles published in the year 2014 (Vol 1 and Issue No. 2) and 2017 (Vol. 4 and Issue No. 1) with 8 articles.

Table 2: Issue-wise distribution of articles

Year	2014		2015		2016		2017		Total Number of Contribution	
	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS
1	9	14	15	19	12	21	8	24	44	78
2	8	19	16	19	11	20	13	22	48	80

3	24	14	13	18	11	18	12	45	60	95
4	15	16	11	18	10	25	12	59	48	118
Total	56	63	55	74	44	84	45	150	200	371

Figure 2 Issue-wise distribution of articles



similarly, IJLIS journal has published 371 articles, in that 199 articles published by two authors. It was discovered that a single author contribution of both the journals was comparatively parallel with 34.00% (IJODLS) and 36.12% (IJLIS). It was revealed that in both the journals, the contribution of two authors is higher than a contribution of single or 3 or more authors with 52.00% (IJODLS) and 53.64(IJLIS) correspondingly. In both the journals, the three authors contribution are limited and four and above authors contributions are comparatively less when compared to the contribution of single and two authors contributions.

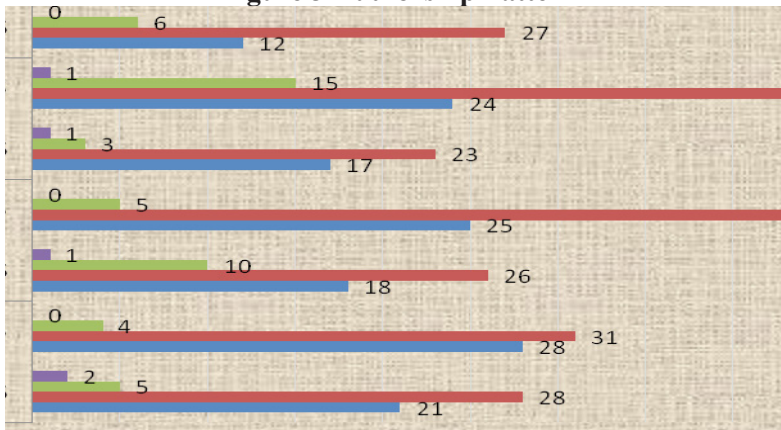
Authorship pattern

Table 3 and Figure 3 demonstrate the particulars of authorship pattern for the articles published for IJLIS and IJODLS journals during the year 2011-17. In the period of study IJODLS journal have published 200 articles, in that 104 articles published by two authors;

Table 3 Authorship Pattern

Number of Authors	Year											
	2014		2015		2016		2017		Total		%	
	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS
One	21	28	18	25	17	24	12	57	68	134	34.00	36.12
Two	28	31	26	44	23	44	27	80	104	199	52.00	53.64
Three	5	4	10	5	3	15	6	9	24	33	12.00	8.89
Four & Above	2	0	1	0	1	1	0	4	4	5	2.00	1.35
Total	56	63	55	74	44	84	45	150	200	371	100.00	100.00

Figure 3 Authorship Pattern



Collaboration among Authors

The degree of collaboration among the authors for the IJODLS and IJLIS for the period of study was acquired with the help of the formulae ($C = \frac{Nm}{Nm+Ns}$) given by Mr. K. Subramaniam. The entire details of the formula are articulated as C is Degree of Collaboration, Nm is Number of Multi-authored papers and Ns for Single authored papers published during the period of study. It was found that Nm (132 for IJODLS, 237 for IJLIS) and Nm+Ns is (200 for IJODLS, 371 for IJLIS), hence the degree of collaboration for the period of study for the International Journal of Digital Library Services is 0.557 and 0.539 for International Journal of Library & Information Studies. Hence, it is identified that both the journals have parallel degree of collaboration among the authors.

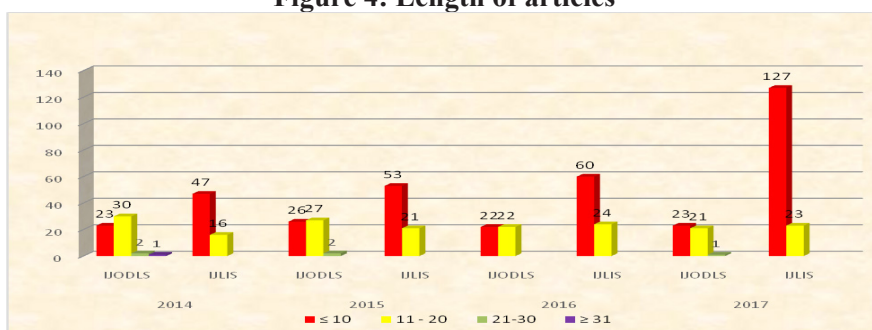
Length of articles

Table 4 and Figure 4 express the comparison of the length of articles which got published in both the journals is articulate on the number of pages. The study shows that the highest number of papers published with 11-20 pages with 50.00 % with 100 articles for IJODLS journal and 1-10 pages with 77.36% with 287 articles for IJLIS journal. In both the journals it was found that very less number of journals published with 21-30 pages and more than that too. But comparatively in both the journals more number of articles published with 1-10 and 11-20 pages.

Table 4 Length of articles

Length of Articles (Pages)	Year								Total	
	2014		2015		2016		2017			
	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS	IJODLS	IJLIS
≤ 10	23	47	26	53	22	60	23	127	94	287
11 - 20	30	16	27	21	22	24	21	23	100	84
21-30	2	-	2	-	-	-	1	-	5	0
≥ 31	1	-	-	-	-	-	-	-	1	0
Total	56	63	55	74	44	84	45	150	200	371

Figure 4: Length of articles



Conclusion

The current study made a comparative analysis on the diverse patterns of International Journal of Library & Information Studies and International Journal of Digital Library Services for the period of 2014 to 2017. The Study revealed that both the journals had published four volumes and four issues for the period of study. IJLIS journal has published 371 journals and IJODLS journal have published

200 journals during the study period. It was found that IJLIS journal has published more articles than IJODLS journal with the increase of 85.50%. It was revealed that in both the journals, the contribution of two authors is higher than the contribution of single or 3 or more authors with 52.00% (IJODLS) and 53.64(IJLIS) correspondingly. The degree of collaboration for the period of study for the International Journal of Digital Library Services is

0.557 and 0.539 for International Journal of Library & Information Studies. Hence, it is found that both the journals have more or less similar degree of collaboration among authors. This study exposed that the majority of the articles for IJODLS journal were having the length of 11-20 pages and for IJLIS journal were having the length of 1-10 pages. This study was made to identify the output based on the comparative analysis of both journals through various patterns and to provide the results precisely based on the available data.

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