

INTERNATIONAL JOURNAL OF DIGITAL LIBRARY SERVICES (IJODLS): A BIBLIOMETRIC STUDY

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Abstract

This paper attempts to make a bibliometric analysis on the diverse pattern of articles which got published in the International Journal Digital Library Services for the period of 2011 to 2017. The study has done to assess the growth of literature and its output based on the articles published over the study period of time in the journal. The present study engages with diverse patterns such as year-wise and issue-wise distribution of articles, length of articles, authorship pattern and collaboration among authors, length of articles, institution affiliation of authors, geographical distribution and range of reference of the articles. The present study revealed that 290 articles were published during the period of 2011 to 2017. In 2014, the journal has published the maximum number of articles with 19.31 average per article. It was observed that the highest number of contributions of 140 articles (48.28%) was published by two authors and the degree of collaboration among authors for the period of study is 0.634. The study illustrates that the majority of

153 articles were having the length of 11 – 20 pages with the percentage of 52.76. It was discovered from the study that the authors from the universities have highest contribution of 162 articles with the percentage of 55.86. It was notified that the maximum number of articles published during the period of study is from India with 262 articles (90.34%) holding the number one position in ranking.

Keywords: Bibliometric Study, International Journal of Digital Library Services, Authorship Pattern, Degree of Collaboration, IJODLS.

Introduction

The International Journal of Digital Library Services has started its publication from the year of 2011 onwards. It is publishing in both electronic and print versions for the benefit of research community. Currently, it is publishing four issues in a year and it is an academic journal providing freely in online for the international community for their research works without getting any monetary benefits from the users. It is an open access journal which can be accessed and retrieved easily through the internet without any troubles and it provides a better service for the international community in making available the various resources by distributing the research articles in order to enhance their research works. Its main goal is to support the research people by strongly supporting the initiative in open access facility. This study is to investigate the bibliometric analysis of the International Journal of Digital Library Services (IJODLS). We have conducted the analysis based on the data available on the articles published from 2011 to 2017 in order to get an clear idea in finding out the year-wise and issue-wise distribution of articles, authorship pattern, degree of collaboration among authors, length of the articles, institution affiliation of authors, geographical distribution of articles, range of reference of articles. This paper clearly focuses in addressing the various impacts on the patterns towards the International Journal of Digital Library Services for the information professionals and researchers.

Literature Review

There are several studies were conducted on the bibliometric analysis with international journals. Some of the pertinent studies have been conversed here which helps to do the present study in a qualitative and appropriate way. Kuri Ramesh and Palled Savita (2016) conducted the

research analysis on the journal of Indian library association from 2012 to 2014 for nearly 66 articles and found the results that more number of articles published by multi authors. The degree of collaboration among authors is 0.51, the author average is 6.0 per paper and found that the Indian authors contributed more paper than others. Swain and Panda (2012) have conducted a bibliometric study for 2002 to 2010 for the journal of intellectual property rights and found that the major contribution of the articles were from single authors. There were 0.66 per article were noted towards average number of citations and 22.01 percentage were self-cited articles among total cited research articles. Kumar and Moorthy (2011) done a study on the Desidoc Journal of Library and Information Technology during the period of 2001 to 2010 and extended their study on the parameters which includes of authorship pattern, subject wise distribution of articles, growth pattern and content coverage and found that the growth of number of articles published were increased significantly and single author contribution was more in the publication of articles. Verma Neha and Singh Kunwar (2017) have done a study on IJODLS and found that coauthors contribution is higher than the single author contributions. Mondal (2014) have conducted analysis for the webology an international journal and delivered the results for articles published in between 2004 to 2012. He found the two authorship patters have got the maximum number of articles published and authors from India have contributed more articles. Thanuskodi, S. (2011) have presented a bibliometric analysis on Library Herald Journal for the articles published from 2006 to 2010 and found the results that 89.85% that is many of the articles published by the authors from India and only 10.15% from the authors from outside of India. He also revealed that the major articles published by single authors (31.32%). Das (2013) have conducted a study on the journal of informetrics and revealed the results the many of the contributions was from the collaboration of joint authors and more author's contribution is from United States of America. Wankhede et.al (2015) conducted an analysis for the urban library journal on DOAJ and found that the article distributions have diverse categories and single authors have contributed more articles in the journals for the study period. They also revealed that most of the authors from research and academic institutions. Roy, S.B. and Basak, M. (2013) have conducted a study on the research articles published for the journal of documentation and revealed that majority of the contributions are from multi-authors and the degree of collaboration among authors is 0.51. They also revealed that majority of articles published by the authors from United Kingdom. Kashyap S.R (2017) have done bibliometric study for the international research journal of library and information science from 2011 to 2014 and found the results that the two authors were published more articles during the period of study with 39.34% and maximum articles published by Indian authors with 65.03% and the degree of collaboration among authors is 0.7901. Panda (2013) conducted a bibliometric study for the journal of information literacy and found that most of the articles published by the authors from academic institutions with 94.65%. Shukla Akhandanand and Moyon Thermi (2017) have done a study on IJODLS articles for 154 articles and found that the degree of collaboration is 0.59. Patel Vimlesh (2017) have done and revealed that 202 papers published in the journal of librarianship and information science for the period of 2012 to 2016. He revealed that maximum number of contributions from single authors with 52.97% and top number of publication of articles from England and the average citations per year for study is 53.6 and the highest number of articles published in the year 2013 with 23.76%.

Objectives of the study

The objectives of the present study are listed as follows:

5. To analyze the articles published in IJODLS from 2011 to 2017.
6. To examine the year-wise distribution of articles.
7. To analyze the issue-wise distribution of articles.
8. To determine authorship pattern.

9. To discover the degree of collaboration among authors.
10. To scrutinize the length of IJODLS articles.
11. To determine the institutional affiliation of authors.
12. To classify the geographical distribution of articles.
13. To observe the range of references of the articles.

Methodology

In the present study, there were 290 articles from 7 volumes and 26 issues of International Journal of Digital Library Services (IJODLS) for the period of 2011 – 2017 have been taken for making a study to accomplish the objectives of the study. All the pertinent articles were accessed and downloaded from the 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, institutional affiliation of authors, geographical distribution and range of references. After collecting the complete data, it was put into a table and analyzed to make interpretation in order to attain results in respect of the affirmed objectives.

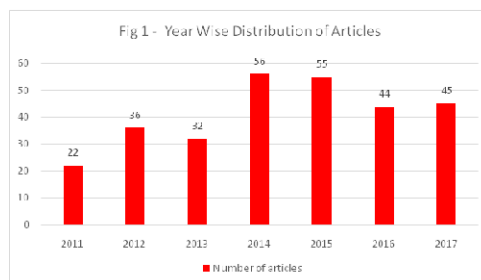
Analysis and Discussions on Research Objectives

Year wise distribution of IJODLS articles

Table 1 and Figure 1 show the year wise distribution of articles of International Journal of Digital Library Services. During the period of 2011-2017, the journal was published 7 volumes and 26 issues with total number 290 articles. It was discovered that the year 2014 has more contributions of articles (56) with an average of 19.31 per year and the year 2011 has less contributions of articles (22) with an average of 7.59 per year.

Table 1 Year-Wise Distribution of Articles

Year	Vol. No.	No. of Issues	Number of articles	Average articles per year
2011	1	2	22	7.59
2012	2	4	36	12.41
2013	3	4	32	11.03
2014	4	4	56	19.31
2015	5	4	55	18.97
2016	6	4	44	15.17
2017	7	4	45	15.52
Total			290	100



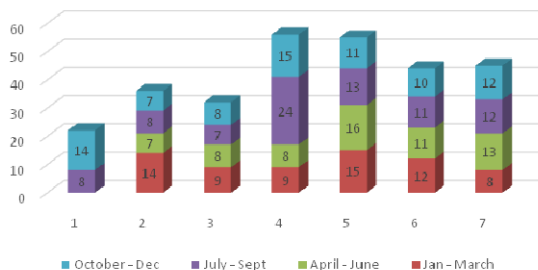
Issue-wise distribution of articles

The issue -wise distribution for the IJODLS articles is shown in Table 2 and Figure 2. It was revealed that Volume number 4 and issue (July -Sept) has the highest number of published articles (24) and Volume number 3(July-Sept) and 2 (Oct- Dec) has the lowest number of published articles (7).

Table 2 Issue-wise distribution of articles

Issues	Volume Number							
	1	2	3	4	5	6	7	No. of Contribution
Jan - March	-	14	9	9	15	12	8	67
April - June	-	7	8	8	16	11	13	63
July - Sept	8	8	7	24	13	11	12	83
Oct - Dec	14	7	8	15	11	10	12	77
Total	22	36	32	56	55	44	45	290

Figure 2 - Issue Wise Distribution of Articles



Authorship Pattern

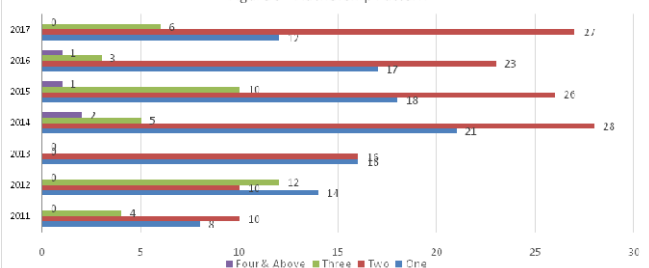
The Table 3 and Figure 3 illustrate the complete details of authorship pattern for the articles published during the year 2011-17. Totally 290 articles published during this period, In that the maximum number of contributions of 140 articles (48.28) was published by Two authors and the next highest number of contributions of 106 articles (36.55) was published by single author and lowest number of contributions of

40 articles (13.79) was published by Three authors and the very lowest number of contributions of 4 articles (1.38) was published by Four and more authors.

Table 3 Authorship Pattern

Number of Authors	Number of Articles Published								Percentage
	2011	2012	2013	2014	2015	2016	2017	Total	
One	8	14	16	21	18	17	12	106	36.55
Two	10	10	16	28	26	23	27	140	48.28
Three	4	12	-	5	10	3	6	40	13.79
Four & Above	-	-	-	2	1	1	-	4	1.38
Total	22	36	32	56	55	44	45	290	100

Figure 3 - Authorship Pattern



Degree of collaboration among authors

The degree of collaboration among authors for the IJODLS for the study period was obtained with the help of the formulae ($C = Nm/Nm+N_s$) given by Mr. K. Subramaniam. The complete details of the formula are expressed 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 is 184 and Nm+N_s is 290, hence the degree of collaboration for the period of study for the International Journal of Digital Library Services is $C = 0.634$.

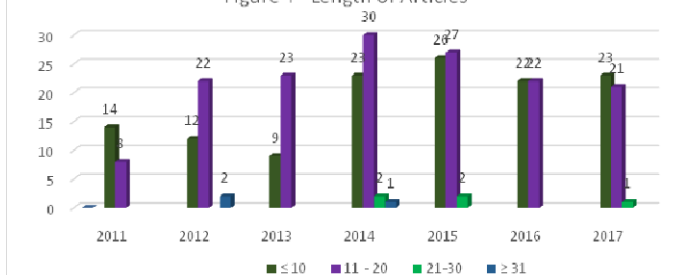
Length of IJODLS articles

Table 4 and Figure 4 represent the length of articles which got published is articulated in expression of number of pages. The study illustrates that the maximum of 153 articles were having the length of 11 - 20 pages with the percentage of 52.76. From the study, it was observed that 129 articles were having the length of 1 -10 pages with the percentage of 44.48 and there were 5 articles published in the length of 21-30 pages with the percentage of 1.72 and 3 articles were published with the length of more than 30 pages with the percentage of 1.03 respectively

Table 4 Length of articles

Length of Articles (Pages)	Number of Articles Published								%
	2011	2012	2013	2014	2015	2016	2017	Total	
≤ 10	14	12	9	23	26	22	23	129	44.48
11 - 20	8	22	23	30	27	22	21	153	52.76
21-30	-	-	-	2	2	-	1	5	1.72
≥ 31	-	2	-	1	-	-	-	3	1.03
Total	22	36	32	56	55	44	45	290	100.00

Figure 4 - Length of Articles

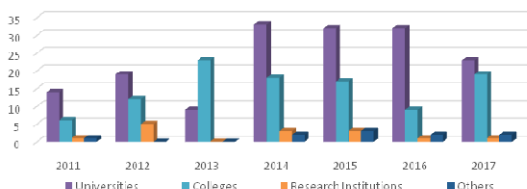


colleges with 104 articles having the percentage of 35.86. The research institutions stood in third position with the contribution of 14 articles with the percentage of 4.83 and the remaining 10 articles published from others (School and Government organization) with the percentage of 3.45.

Table 5 Institutional Affiliations of Authors

	Year of Publications							Total	%
	2011	2012	2013	2014	2015	2016	2017		
Universities	14	19	9	33	32	32	23	162	55.86
Colleges	6	12	23	18	17	9	19	104	35.86
Research Institutions	1	5	-	3	3	1	1	14	4.83
Others	1	-	-	2	3	2	2	10	3.45
Total	22	36	32	56	55	44	45	290	100

Figure 5 - Institutional Affiliations of Authors

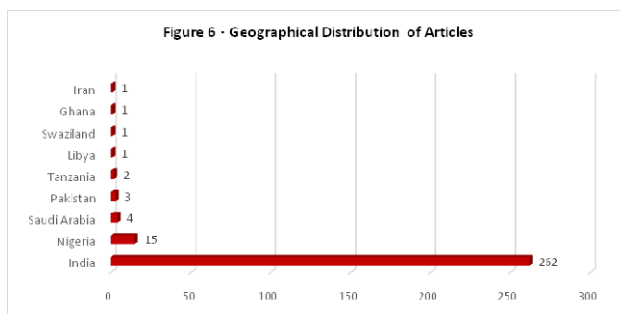


(90.34%) holding the position of rank 1. The second maximum numbers of articles were published by the authors from Nigeria with 15 articles (5.71%). The third maximum number of articles published by the authors from Saudi Arabia with 4 articles (1.38%) and it was followed by Pakistan with 3 articles (1.03%) and Tanzania with 2 articles (0.69%) and rest of countries like Libya, Swaziland, Ghana, Iran etc., have contributed each 1 article (0.34%). Hence, it was found that Indian authors were contributed most of the articles in the present study.

Table 6 Geographical Distribution of Articles

Rank	Country	Total	%
1	India	262	90.34
2	Nigeria	15	5.17
3	Saudi Arabia	4	1.38
4	Pakistan	3	1.03
5	Tanzania	2	0.69
6	Libya	1	0.34
6	Swaziland	1	0.34
6	Ghana	1	0.34
6	Iran	1	0.34
Total		290	100

Figure 6 - Geographical Distribution of Articles



Institutional affiliation of authors

Table 5 and Figure 5 depict the institutional affiliation of authors for the articles published during the study period in IJODLS. It was discovered from the study that the authors from the universities have highest contribution of 162 articles with the percentage of 55.86. The second highest contribution of articles from

Geographical distribution of articles

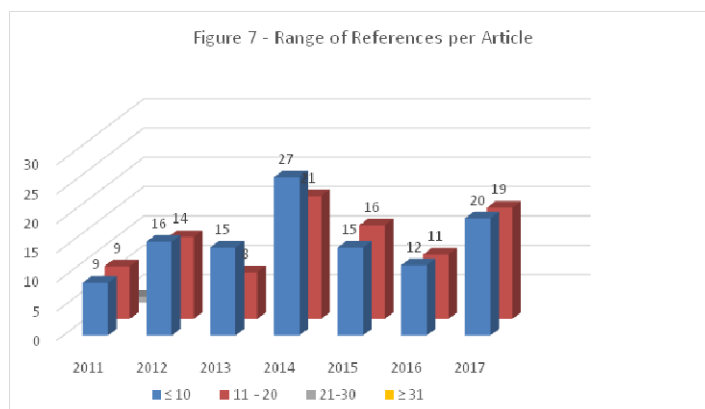
The study of geographical distribution of the IJODLS articles for the period of 2011-2017 (Table 6 and Figure 6) show that, the authors are from nine different countries were contributed 290 articles. The maximum number of articles published during the period of study is from India with 262 articles

Range of References of the Articles

Table 7 and Figure 7 clearly show the range of reference of the articles in each volume. From the study, it was found that there were 289 articles published with proper reference and one article has not provided any reference. The highest number of articles having the range of references (1-10 references) in 114 articles with 39.45% and maximum number of references were provided in the articles published in year 2014 and 2015. The second highest number of articles having the range of references (11-20 references) in 98 articles with 33.91% and it was followed by the range of references (21-30 references) in 47 articles with 16.26% and (31 and more references) in 30 articles with 10.38% respectively.

Table 7 Range of References Per Article

References Per Article	Number of Articles Published								%
	2011	2012	2013	2014	2015	2016	2017	Total	
≤ 10	9	16	15	27	15	12	20	114	39.45
11 - 20	9	14	8	21	16	11	19	98	33.91
21-30	2	3	7	6	13	11	5	47	16.26
≥ 31	2	3	2	1	11	10	1	30	10.38
Total	22	36	32	55	55	44	45	289	100



Conclusion

Bibliometric study plays a vital role in the studies of library and information science. It helps to analyze the growth of the literature in publication aspect and provides new ideas for the researchers as well as the librarians in their academic works. Now a day, the publishing progress depends on authors contribution, excellence of information and contribution patterns. The present study made analysis on the various patterns of International Journal of Digital Library Services from 2011 to 2017. It has been found that during the study period the IJODLS Journal was published 290 articles in 7 volumes and 26 issues. It was revealed that there were more articles published in the year 2014 with 56 articles and comparatively fewer articles have got published in the year 2011 with 22 articles due to initial year of progression of journal.

It was found that the maximum number of articles contributed by two authors with 140 articles at the average of 48.28 whereas the very least number of 4 articles was contributed by four authors. It is also found that the degree of collaboration among authors for the period of study is 0.634. This study identified that the majority of 153 articles were having the length of 11

- 20 pages with the percentage of 52.76. It is clearly notified from the study that the highest number of contributions were from the authors with university affiliation i.e., 162 articles with percentage of 55.86. It is also revealed from the study that authors from India have contributed

Vol. 5 No. 4 April 2018 ISSN: 2321-788X UGC Approval No: 43960 Impact Factor: 3.025 nearly 262 articles with 90.34% with the position of rank 1 and the foreign country authors from Nigeria also contributed the next high number of articles i.e. 15 articles with 5.17%. Based on the study, it was illustrated that the maximum number of articles having the range of reference is 1-10 references in 114 articles. This study has done the bibliometric analysis clearly and tries to provide the results accurately about the contributions related to the journal in order to have a clear idea on the growth of literature.

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