

# Bibliometric Analysis of Pearl: A Journal of Library and Information Science during 2011-2016

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**Abstract** - The study investigate the publication trends in Pearl: A Journal of Library and Information Science that is recognised one of the important Journals in the field of Library and Information Science. The study covers 223 research papers in Pearl during 2011-2016 that were published in 24 issues of 6 volumes. Maximum 43 (19.29%) papers were published in the volume number 5 papers in 2011. 97 (43.50%) papers were two-authored and 87 (39.02%) were single authored, average author productivity per author was 0.55 during 2011-2016, A great number of 81 (19.95%) authors from Karnataka State had contributed their papers in Pearl. 367 (90.40%) Indian and 39 (9.61%) foreign authors also contributed their papers in the journal.

**Keywords:** Bibliometric analysis, Pearl: A Journal of Library and Information Science, Authors, Authorship pattern, Author Productivity, Degree of collaboration.

## I. INTRODUCTION

The terms bibliometrics term was firstly used by Pritchard in his article 'Statistical Bibliography or Bibliometrics' published in the 'Journal of Documentation' in the year 1969. According to Pritchard (1969), bibliometric is defined as "the application of mathematics and statistical methods to books and other media of communication."<sup>1</sup> Bibliometrics is an important field of library and information science that represents a exclusive set of techniques and tools for the monitoring and analysis of information resources. Bibliometric methods are applied in studies of properties and conduct of recorded knowledge; for investigation of the structures of scientific and research areas; and for assessment of research action and management of scientific information.<sup>2</sup> PEARL: A Journal of Library and Information Science is being published since 2007 by University Library Teachers Association of Andhra Pradesh, Hyderabad. It is a quarterly publication with March, June, September and December issues. The journal describes itself 'a key objective is to promote the writing skills of library professionals especially those who are working in remote and rural areas'. It publishes original research articles in all areas of Library and Information Science (LIS). The Journal is indexed by Google Scholar, EBSCO Discovery, Summon ProQuest, CNKI Scholar, and Indian Citation Index. The journal also got 0.057 Research Impact Indicator by Indian Citation Index.<sup>3</sup>

## II. REVIEW OF LITERATURE

Some of the studies related to the present study are as under: Baskaran (2013)<sup>4</sup> in his study on research productivity of Alagappa University during 1999-2011 reveals that in 1999 (3.99%) publications were published, in 2004 and 2005 (7.47%) were published and in 2011 (12.5) were published. The study observed that there is less than 5 % of publications brought from 1999 to 2001, and less than 10 % of publications are published between 2002 and 2008 and more than 10 % of publications occurred during 2009 to 2011.

Rani (2014)<sup>5</sup> in her study on Bibliometric analysis of PEARL: A Journal of Library and Information Science reveal that maximum number of articles 47 (19.66%) were published in the year 2009, 45 (18.82%) in 2010 and 44 (18.41%) in 2008. All 239 articles were published during the period 2007 to 2012. The journal published 39.85% articles an average per year. Volume 3 contributed greatest numbers of 47 articles followed by volume 4 the second top position with 45 articles. The least number of articles is in volume 6 with 32 articles only.

Thavamani (2014)<sup>6</sup> in his scientometric study on Pearl journal reveals that 273 contributions published in the Pearl journal during the year 2007-2013. The maximum number of contributions 47 (17.216%) were published in the year 2009 and minimum number of papers 31 (11.355%) were published in the year 2012. 107 contributions (39.194%) out of 273 had contributed by single author, 114 contributions (41.758%) by two authors, 41 contributions (15.018%) by three authors and the lowest number of contributions 11 (4.029%) contributed by four authors.

Mondal and Saha (2015)<sup>7</sup> in their study of Journal of Indian Library Association during 2008-2014 reveal that total 115 articles from 21 issues were analysed. The 21.74% articles are published in volume number 49, 18.26% are in vol. no. 50 and lowest 8.7% are published in vol. no. 46. The study shows that 192 authors are contributed their articles in JILA during 2008-2014. 44.35% articles are contributed by single and two authors and 11.30% contributed by three authors.

Padmavathi and Veerabasavaiah (2015)<sup>8</sup> in their study on Pearl journal reveal that 300 articles were published during 2007-2014. The highest numbers of articles 47 (15.67%)

were published in the year 2009 in volume 3, 45 (15%) in 2010 in volume 4 and 44 (14.67%) in 2008 articles in volume 2. Out of 300 research contributions, the maximum number of research articles 160 (53.33%) were on ICT, 47 (15.67%) on user study, 41 (13.67%) on bibliometrics and on information literacy with 2 (0.66%). 207 (69%) papers were contributed by non-teaching LIS professionals, 90 (30%) by teaching LIS professionals and 3 (1%) research contributions which have incomplete information from author affiliations.

### III. OBJECTIVES OF THE STUDY

Objective of the study will be following as:

1. To find out year, volume and issue wise distribution of published papers in Pearl Journal.
2. To study author-wise pattern of published papers.
3. To examine published papers of Indian and foreign authors.
4. To examine the length of the published papers.
5. To know the author productivity.
6. To find out the cited references included in the published papers.

7. To find out the subject-wise distribution of the published papers.

### IV. SCOPE AND METHODOLOGY

The present bibliometric analysis is limited to only 223 research papers published in 'Pearl: A Journal of Library and Information Science' during 2011-2016. All the 223 papers were retrieved from the archive of the Pearl Journal (<http://www.indianjournals.com.iproxy.inflibnet.ac.in:2048/ijor.aspx?target=ijor:pjolis&type=home>) provided by the N-List (National Library and Information Services Infrastructure for Scholarly Content) programme that is subscribed by the college library. The papers were downloaded, organized, tabulated and analysed in MS-Word and MS-Excel for their proper results.

### V. ANALYSIS AND FINDINGS

Research papers from 24 issues during 2011-2016 were retrieved from the N-List website and are considered for analysis and interpretation. The analysed data is obtainable in tabulated form and explained clearly.<sup>9</sup>

TABLE I YEAR-WISE DISTRIBUTION OF PAPERS IN PEARL DURING 2011-2016

Year	Volume	Issue				Total	Percentage %
		1	2	3	4		
2011	5	11	11	12	9	43	19.29
2012	6	7	8	7	9	31	13.91
2013	7	9	9	8	8	34	15.25
2014	8	9	9	9	9	36	16.15
2015	9	9	8	12	8	37	16.60
2016	10	9	11	9	13	42	18.84
Total						223	100.00

Table I shows that the allocation of papers in the Pearl during 2011-2016. Total 223 papers were published in 24 issues of 6 volumes. The greatest 43 (19.29%) papers were published in the volume number 5, 42 (18.84%) in vol.

no.10, 37 (16.60%) in vol. no. 9, 36 (16.15%) in vol. no. 8, 34 (15.25%) in vol.no.7, and least 31 (13.91%) papers are in vol. no. 6.

TABLE II VOLUME-WISE AUTHORSHIP PATTERN IN PEARL DURING 2011-2016

Year	Volume	Authors				Total Articles	Total Authors	Percentage %
		Single	Two	Three	Four			
2011	5	19	11	10	3	43	83	20.45
2012	6	10	15	5	1	31	59	14.54
2013	7	12	18	3	1	34	61	15.03
2014	8	16	16	3	1	36	61	15.03
2015	9	15	16	4	2	37	67	16.51
2016	10	15	21	6	-	42	75	18.48
Total		87 (39.02%)	97 (43.50%)	31 (13.91%)	8 (3.59%)	223 (100%)	406 (100%)	100.00

Table II reveals that 97 (43.50%) contributors were two authored, 87 (39.02%) single author, 31 (13.91%) three authored, and 8 (3.59%) four authored. The study also reveals that greatest 83 (20.45%) authors contribute their

paper in the year 2011, 75 (18.48%) in the year 2016, 67 (16.51%) in the year 2015, 61 (15.03%) in the year 2013 & 2014, and least 59 (14.54%) in the year 2012.

TABLE III DEGREE OF AUTHOR COLLABORATION IN PEARL DURING 2011-2016

Year	Volume	Single Authored Papers	Multi Authored papers	Total	Degree of Collaboration
2011	5	19	24	43	0.56
2012	6	10	21	31	0.68
2013	7	12	22	34	0.65
2014	8	16	20	36	0.56
2015	9	15	22	37	0.60
2016	10	15	27	42	0.65
Total		87	136	223	0.61

Table 3 presents Subramanyam formula for calculating author's degree of collaboration in a discipline. The degree of collaboration among authors is based on the ratio of the number of papers published in a discipline during certain period of time. The degree of collaboration (collaboration coefficient) between authors is measured mathematically as;

$$C = \frac{Nm}{Nm + Ns}$$

Where,  $C$  is the degree of collaboration,  $Nm$  is number of multi-authored papers, and  $Ns$  is number of single-authored papers.<sup>10</sup> According to Subramanyam formula, the degree of collaboration over the years from 2011-2016 is calculated and it varies from 0.56 to 0.68 and the average degree of collaboration is 0.61 which shows supremacy of joint authorship.

TABLE IV AUTHOR PRODUCTIVITY IN PEARL DURING 2011-2016

Year	Volume	Number of Papers	Number of Authors	AAPP(Average Author Per paper)	Productivity per author
2011	5	43	83	1.93	0.52
2012	6	31	59	1.91	0.55
2013	7	34	61	1.80	0.56
2014	8	36	61	1.70	0.59
2015	9	37	67	1.81	0.56
2016	10	42	75	1.79	0.56
Total		223	406	1.82	0.55

Table 4 shows that the average number of author per paper is 1.82 for 223 papers and the average productivity per author is 0.55. The greatest average author per paper is 1.93 in the year 2011 and the greatest productivity per author is 0.59 in the year 2014.

Table 5 reveals that 367 Indian authors from 24 states of India had contributed their papers in Pearl during 2011-

2016. The greatest 81 (19.95%) authors were from Karnataka, 50 (12.32%) from Andhra Pradesh, 46 (11.33%) from Tamil Nadu, 34 (8.38%) from Odisha, 26 (6.41%) from Maharashtra. The 39 (9.61%) authors from foreign countries had also contributed their papers in Pearl during 2011-2016.

TABLE V STATE-WISE DISTRIBUTION OF AUTHORS IN PEARL DURING 2011-2016

Rank	State/Union Territory/ other Countries	Number of authors	Percentage %
1	Karnataka	81	19.95
2	Andhra Pradesh	50	12.32
3	Tamil Nadu	46	11.33
4	Odisha	34	8.38
5	Maharashtra	26	6.41
6	Chandigarh	15	3.70
7	Punjab	15	3.70
8	Delhi/New Delhi	10	2.47
9	Haryana	10	2.47
10	Uttar Pradesh	09	2.22
11	Gujarat	08	1.97
12	Madhya Pradesh	07	1.73
13	West Bengal	07	1.73
14	Puducherry	06	1.48
15	Assam	05	1.24
16	Chhattisgarh	05	1.24
17	Jammu & Kashmir	05	1.24
18	Kerala	05	1.24
19	Mizoram	05	1.24
20	Rajasthan	05	1.24
21	Meghalaya	04	0.99
22	Telegana	04	0.99
23	Uttarakhand	04	0.99
24	Sikkim	01	0.25
	Other countries	39	9.61
	Total	406	100.00

TABLE VI COUNTRY-WISE DISTRIBUTION OF AUTHORS IN PEARL DURING 2011-2016

S. No.	Country	Number of Authors	Percentage %
1	India	367	90.40
2	Nigeria	25	6.16
3	Jordon	04	0.99
4	Bangladesh	03	0.74
5	Iran	02	0.50
6	Saudi Arabia	02	0.50
7	UAE	02	0.50
8	Sri Lanka	01	0.25
	Total	406	100.00

Table VI shows that greatest 367 (90.40%) Indian authors had contributed their papers in Pearl during 2011-2016. From foreign countries; authors of 07 (9.61%) countries of

the world had contributed their papers in Pearl during 2011-2015. The greatest 25 (6.16%) Nigerian authors had contributed their papers in Pearl. The table 6 also reveals contributions of different countries with their percentage

TABLE VII MAJOR CONTRIBUTORS TO PEARL DURING 2011-2016

Rank	Author	Number of Papers	Percentage %
1	Anil Kumar Dhiman	04	0.99
2	L. Atchamamba	04	0.99
3	C.P. Ramasesh	03	0.74
4	D.B. Ramesh	03	0.74
5	Dillip K Swain	03	0.74
6	Gururaj S. Hadagali	03	0.74
7	K. Kaliyaperumal	03	0.74
8	K.P.S. Sengar	03	0.74
9	K.S.R. Vithal	03	0.74
10	Khaiser Nikam	03	0.74
11	Kiran Baidwan	03	0.74
12	Rabindra K Maharana	03	0.74
13	Ramesh R. Naik	03	0.74
14	Ravi Bellary	03	0.74
15	V.J. Suseela	03	0.74
16	35 authors with two papers each	70	
27	289 authors with one paper each	289	
	Total	406	

Table VII reveals that Dr. Anil Kumar Dhiman and Dr. L. Atchamamba had contributed greatest 04 (0.99%) papers in Pearl during 2011-2016. 13 most prolific Authors had

contributed at least 3 papers and 35 Authors had contributed at least 2 papers in Pearl. The table provides complete detail of 406 authors in Pearl during 2011-2016.

TABLE VIII LENGTH OF PAPERS PUBLISHED IN PEARL DURING 2011-2016

Number of pages	2011	2012	2013	2014	2015	2016	Total	Percentage %
1-5	16	05	07	09	09	07	53	23.77
6-10	21	25	22	26	23	30	147	65.92
11-15	05	-	05	01	05	05	21	9.42
16-20	-	01	-	-	-	-	01	0.45
>21	01	-	-	-	-	-	01	0.45
Total	43	31	34	36	37	42	223	100.00

Table VIII reveals that greatest 147 (65.92) published papers in Pearl during 2011-2016 had length between 6-10 pages, 53 (23.77%) length of 1-5 pages, 21 (9.42%) length

of 11-15 pages, 1 (0.45%) length of 16-20 and also more than 21 pages.

TABLE IX REFERENCES IN PAPERS PUBLISHED IN PEARL DURING 2011-2016

Number of References	2011	2012	2013	2014	2015	2016	Total	Percentage %
1-5	10	05	06	01	05	05	32	14.35
6-10	16	12	15	17	11	16	87	39.02
11-15	08	10	06	13	11	08	56	25.12
16-20	05	02	03	01	04	06	21	9.42
21-25	01	01	01	03	04	05	15	6.73
26-30	01	-	02	-	01	01	05	2.25
31-35	01	-	01	01	-	-	03	1.35
36-40	01	-	-	-	-	01	02	0.90
41-45	-	01	-	-	-	-	01	0.45
46-50	-	-	-	-	01	-	01	0.45
Total	43	31	34	36	37	42	223	100.00

Table IX shows that 87 (39.02%) papers had cited 6-10 references; 56 (25.12%) cited 11-15 references, 32 (14.35%) cited 1-5 references, 21 (9.42%) cited 16-20 references, 15 (6.73%) cited 21-25 references, 05 (2.25%)

cited 26-30 references, 03 (1.35%) cited 31-35 references, 02 (0.90%) cited 36-40 references, 01 (0.45%) cited 41-45 and 46-50 references.

TABLE X SUBJECT-WISE PAPER PUBLISHED IN PEARL DURING 2011-2016

S. No.	Subjects	Number of Papers	Percentage %
1.	Digital/Online/E-Resources	32	14.35
2.	Librarianship	28	12.56
3.	Users Studies	25	11.21
4.	Knowledge/Information	17	7.63
5.	ICT	15	6.73
6.	Library Resources/Services	15	6.73
7.	Bibliometrics	11	4.94
8.	Journals/Citations	11	4.94
9.	Libraries	09	4.04
10.	Web based Resources	08	3.59
11.	Research	07	3.14
12.	Scientometrics	06	2.69
13.	Cloud Computing	05	2.25
14.	Library Consortia	05	2.25
15.	Social Media	05	2.25
16.	Open Source Software/Search Engines	04	1.80
17.	Web Metrics	04	1.80
18.	Information Literacy	03	1.35
19.	Library Automation/Software	03	1.35
20.	Classification/Cataloguing	02	0.90
21.	Institutional Repositories	02	0.90
22.	HRM	02	0.90
23.	Literature	02	0.90
24.	IPR	01	0.45
25.	Plagiarism	01	0.45
Total		223	100.00

Table X reveals that total 25 areas of library and information sciences were covered in Pearl during 2011-2016. Greatest 32 (14.35%) papers were on digital/online/r-resources, 28 (12.56%) on Librarianship, 25 (11.21%) on Users Studies, 17 (7.63%) on Knowledge/Information, 15 (6.73%) on ICT and also same number on Library Resources and Services. The table shows complete detail of 25 areas of library science with their quantity and percentage.

## VI. FINDINGS OF THE STUDY

Following are the main findings of the study

1. Total 223 papers were published in 24 issues of 6 volumes in Pearl during 2011-2016.
2. The greatest 97 (43.50%) contributors are two-authored in 24 issues.
3. Degree of collaboration of multi-authored is greater than single authored.
4. Average author per paper is 1.91 in the year 2012 is greater than other mentioned years.
5. Greater Number 81 (19.95%) Authors are from Karnataka state.
6. Indian 367 (90.40%) and 39 (9.61%) foreign Authors contributed their papers in Pearl during 2011-2016.
7. Dr. Anil Kumar Dhiman had contributed maximum 04 papers in Pearl.
8. Greater number 147 (65.92%) papers had length of 6-10 pages.
9. Maximum 87 (39.02%) papers cited 6-10 references.
10. Greater Number 32 (14.35%) papers cover the area of digital/online/r-resources in Pearl during 2011-16.

## VII. CONCLUSION

Pearl: A Journal of Library and Information Science is a very prominent journal in the field of library and information science. Library professionals, teachers, scientists, research scholars and other dignitaries at national and international level are willing to contribute their research papers in Pearl journal. The bibliometric analysis during 2011-2016 of this journal clears that Pearl covers 24 Indian states, 07 foreign countries and 406 authors of different destination without any partiality.

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