

## Analysis of Contribution in International Journal of Digital Library Service

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### Abstract

This paper presents a bibliometric features and characteristics of the journal title "International journal of digital library service". It is publish four issues per year. This study taken during 2012-2017. All contribution of research papers have been carefully examined to ascertain the year wise distribution of articles authorship pattern, average length of articles, average keywords of articles, subject wise, Institution wise etc. Out of 268 contributions only 100 are single authored and rest by multi authored with degree of collaboration 0.627.

**Keywords:** Bibliometrics; Authorship Pattern; Degree of Collaboration.

### Introduction

The Bibliometric is one of the extensive areas of interest among library and information Professionals. This is useful to assess the scientific research applying quantitative analysis and statistics to describe patterns of publications within a given field. In Eastern Europe Countries, bibliometric methods have been used to monitor science and scientists. The word Bibliometrics was first used by Alan Prichard (1969) as "The application of mathematics and statistical methods to books and of other media of communication". Bibliometric can be applied to any subject area and to meet of the problems concerned with written communication, it helps to monitor growth of literature and pattern of research. This paper studies the bibliometric analysis of the literature

published in the International Journal of Digital Library Service.

### Source

International journal of digital library service has been selected as the source journal for the present study. It is one of the journals in Library and Information Science and started Publication in 2011 with four issues in an Year.

### Literature Review

Bibliometric Studies have done earlier by different authors on the difference individual journal publications and literature on specific subject area; the following studies related to the objectives of this study have been reviewed.

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 [1].

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Narang, Asha & Sukhdev Singh (2014) have carried out bibliometric analysis of 15786 citations appended to 1310 articles published in the Indian journal of Pure & Applied Mathematics. The study includes the observation like distribution of contribution, authorship pattern geographical distribution, citation analysis and the number of pages etc [1].

Patel Vimlesh (2017) have done and revealed that 202 papers published in the Librarianship and Information Science for the period of 2012 to 2016. He revealed that maximum number of contribution from single authors with 52.97% and top number of publication of articles from England and the average citations per year for study is 53.60 and the highest number of articles published in the year 2013 with 23.76% [3].

S. Rajeswari & K. Praveena (2017) conducted the research analysis on the Indian Journal of Library and Information Science from 2012 to 2016 for nearly 194 articles and the found the result that more number of articles published by multi authors. The degree of collaboration among authors is 0.655. The maximum number of articles 22.68% were published in the year 2014 [4].

Swai Dillip K. Swain, Chandrakanta & Rautaray, Bijayalaxmi (2014) have analyzed the publication pattern of the Journal Business Economics like the number of paper Published, type of contribution, authorship pattern and ranking of authors. This study also identifies the core institutions having significant contributions to the journal [5].

#### Objectives

1. To examine the authorship pattern and author productivity of the contribution.
2. Dr. Subramanian's formula to analyses the degree of collaboration.
3. To observe the number of pages and keywords of the contribution.
4. To study the citation counts of all the published paper of the journal.
5. To analyses the Subject wise and Institution wise of the contribution per paper.

#### Scope

An attempt has been made to analyses the contribution in the period from 2012 to 2017 i.e., the six years of journal issues which are considered for this study. The contribution of volumes of

authorship, number of pages in each issue and volume was noted on cards. All the cards were subsequently examined, observed, analyzed and tabulated for making observations.

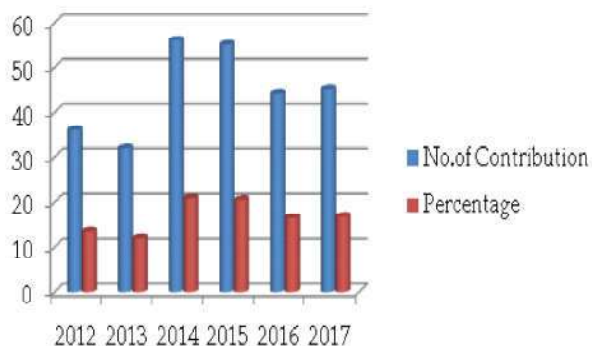
#### Analysis

Table 1 Shows the year wise contribution of publications, maximum number of contributions 56 (20.90%) were published in the 2014, while minimum 32 (11.94%) number of contribution were made in the year 2013. It is clear that maximum number of contribution in the year 2014.

It is clear from the table 2 that, Two authors 132(49.25%) have made major contribution to the International journal of Digital Library Service during the study periods, followed by Single authors 100 (37.31%), Three authors 36 (13.44%). It is revealed that highest number of papers contributed

**Table 1:** Distribution of Contribution (Year wise)

Year	No.of Contribution	Percentage
2012	36	13.43
2013	32	11.94
2014	56	20.90
2015	55	20.52
2016	44	16.42
2017	45	16.79
Total	268	100



**Fig. 1:** Distribution of Contribution (Year wise)

**Table 2:** Authorship Pattern of Contribution

No. of Authors	No. of Contribution	Percentage
Single	100	37.31
Two	132	49.25
Three & More	36	13.44
Total	268	100

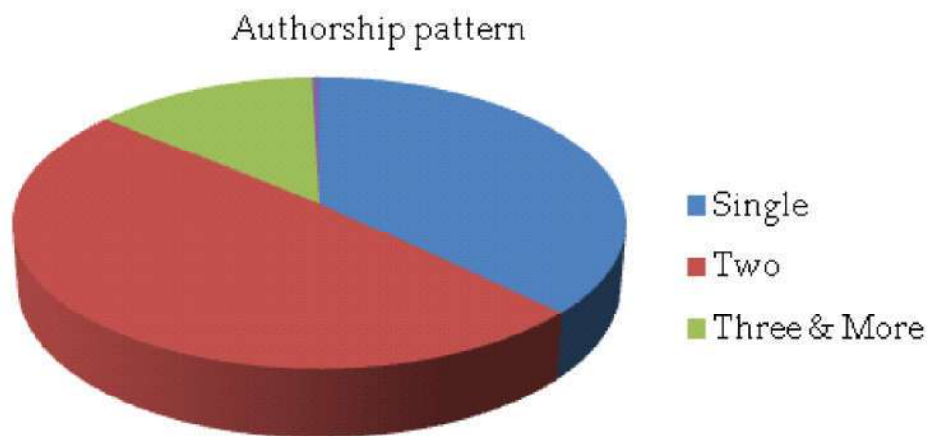


Fig. 2: Authorship Pattern of Contribution

Table 3: Calculation of degree of Collaboration

Year	Single	Multiple	Total	Collaboration
2012	14	22	36	0.611
2013	17	15	32	0.469
2014	22	34	56	0.607
2015	18	37	55	0.672
2016	17	27	44	0.614
2017	12	33	45	0.733
Total	100	168	268	0.627

Table 4: Average keywords of Contribution

Year	No. of Contribution	Total Keywords	Average keywords per Contribution	Rank
2012	36	138	3.83	5
2013	32	137	4.28	6
2014	56	242	4.32	1
2015	55	222	4.04	2
2016	44	209	4.75	4
2017	45	219	4.87	3
Total	268	1167	4.35	

by Double authors.

The degree of collaboration is calculated by the formula given by K, Subramanian,

According to that formula

DC = Degree of Collaboration

Nm = Number of multi authored Papers

Ns = Number of Single authored Papers

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

Here DC= 100/100+168 = 0.627

The Degree of Collaboration of authors by year wise is presented in the Table. 3. The degree of collaboration range from 0.469 to 0.733. The average degree of collaboration is 0.627 during the period 2012 to 2017 and it brings out clearly that there exists a highest level of collaboration in the journal.

From the Table 4 it is observed that there are 1167 key words attached to 268 papers with an average of 4.35 key words per paper. The paper varied from a minimum of 3.83 to maximum of 4.87 during the year 2012 to 2017. The year 2017 has the highest average keywords per paper with 4.87 key words per paper while the year 2012 has the lowest

average keywords per paper with 3.83.

Table 5 shows that 268 papers published with a total page of 3167(average 11.82 page per articles) during the year 2012 to 2017. It is observed that the average length of the articles varied from a minimum of 10.72 pages to a maximum of 14.42 pages. The year 2012 has highest average per paper with 14.42 pages while the year 2016 has the lowest average page per paper with 10.72.

The above Table 6 showed that maximum number of citations 754 (21.49%) produced in 2015. Followed by 719 (20.50%) citations in 2014, 573 (16.33%) citations in 2016, 518 (14.77%) citations in 2017, 457 (13.03%) citation in 2013 and 487(13.88%) citations in 2012.

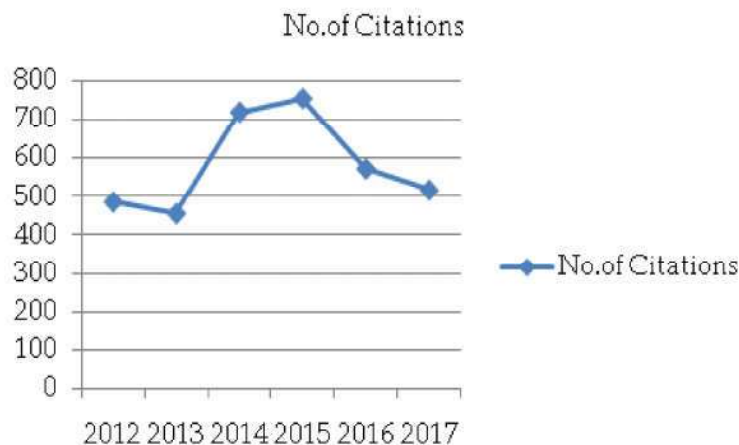
Table 7 Display that among the various fields of subjects in Library and Information Science, User Study is dominating over other subjects. There are Collection Development 7 (2.6 1%) papers,

**Table 5:** Average Pages per Contribution

Year	No. of Contribution	Total Pages	Average Page per Contribution
2012	36	519	14.42
2013	32	402	12.56
2014	56	697	12.45
2015	55	591	10.75
2016	44	472	10.72
2017	45	486	10.80
Total	268	3167	11.82

**Table 6:** Year wise Distribution of Citations

Year	No.of Citations	Percentage
2012	487	13.88
2013	457	13.03
2014	719	20.50
2015	754	21.49
2016	573	16.33
2017	518	14.77
Total	3508	100



**Fig. 3:** Year wise Distribution of Citations

**Table 7:** Distribution of Subject wise Contribution

Name of the Subject	No. of Contributions	Percentage
Collection Development	7	2.61
E-Resource	77	28.73
Metric Study	47	17.54
ICT	52	19.40
User Study	85	31.72
Total	268	100

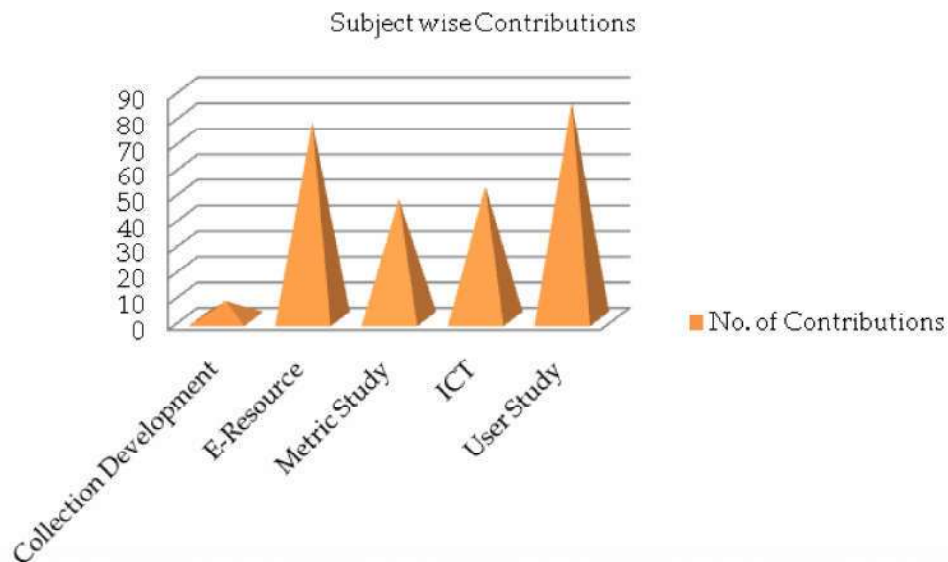
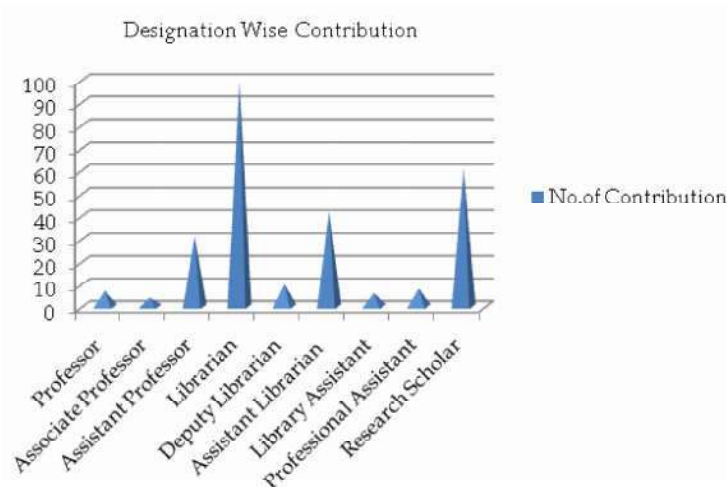


Fig. 4: Distribution of Subject wise Contribution

Table 8: Designation Wise Contributions

Designation	No.of Contribution	Precentage
Professor	7	2.61
Associate Professor	4	1.49
Assistant Professor	31	11.57
Librarian	99	36.94
Deputy Librarian	10	3.73
Assistant Librarian	42	15.67
Library Assistant	6	2.24
Professional Assistant	8	2.99
Research Scholar	61	22.76
Total	268	100



E-Resources 77 (28.73%) papers, Metric Study 47 (17.54%) papers and ICT 52 (19.40%) papers respectively.

Table 8 shows that the highest number of Contribution 99 (36.94%) is from Librarian. The Second highest contributions are from Research Scholars 61 (22.765%), followed by Assistant

**Table 9:** Most Productive Institution

Institution	Total	Percentage
Universities	187	69.77
Colleges	60	22.39
Institutions	14	5.22
Research Centre's	4	1.49
Others	3	1.13
Total	268	100

Librarian, Assistant Professor, Deputy Librarian, Professional Assistant, Professor, Library Assistant and Associate Professor.

The Distribution of published papers by Institution wise the table 9 reveals that, Out of 268 Contributors, the highest number 187 (69.77%) of contributions are contributed from the Universities. The various types of colleges stand the second place with 60 (22.39%) contributors. The Institutions stand on third place with 14 (5.22%) contributors. The Research Center 4 (1.49%) and Others 3 (1.13%) Contributors respectively.

### Findings

1. The Maximum number of papers published in 2014 and Minimum in 2013.
2. Two authored paper are found to be the highest followed by single authored and then three authored papers.
3. The degree of collaboration in Interational journal of Digital Library Service is found to be 0.627.
4. The average pages per paper are 11.85.
5. The average keywords per paper are 4.35.
6. Institution wise contribution is more from Universities 187 (69.77%).
7. Designation wise contribution is more from Librarian 99 (36.94%).
8. Subject wise contribution is more from User study 85 (31.72%).
9. As per the Year wise distribution of citations, there are 3508 citations appended to 268 papers published in the journal Maximum number of citations have been found with 754 I the year 2015.

### Conclusion

The Journal has only a short history of nearly 7 years. Based on the study period i.e., 2012-2017. In this short period the journal has tried to keep up its main aim of raising issues in field of Library and Information Science. The Journal has published 268 articles during the period of study. The Maximum numbers of articles 20.90% were published in the year 2014. The present study reveals that the maximum numbers of contributors are joint authors with 62.69%.

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