

AUTHORS PRODUCTIVITY AND DEGREE OF COLLABORATION IN JOURNAL OF LIBRARIANSHIP AND INFORMATION SCIENCE (JOLIS) 2010-2016

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Abstract - *The study presents the trends in authorship pattern and degree of collaborative in Journal of Librarianship and Information Science (JOLIS) with a sample of 255 articles during 2010-2016. The average number of authors per paper is 2.27. Further the study shown that the degree of collaboration during the seven years (2010-2016) is 0.83 to 0.77. In the seven years of period, the multi-authorship articles are higher and predominating the sole authorship.*

Keywords: Scientometric, Authorship pattern, Degree of collaboration, Journal, Library and information science etc.

Introduction

The study of authorship pattern or productivity is one of the important aspects in the bibliometric analysis. This study was aimed to examine the authorship pattern and degree of collaborative in Journal of Librarianship and Information Science (JOLIS) from 2010-2016. Usually, it is necessary to concentrate on authorship pattern to assess the research contributions in a library and information science is not an exception (Ramakrishnan and Thavamani, 2015, p.23).

Review of Literature

Singh and Varma (2017) studied and revealed that 540 authors have contributed 274 papers. It was clear from their study multi-authored papers with 71.53% have dominated this field of research. It was also clear that highest degree of collaboration of 0.85% in the year 2012. Thavamani (2015) carried out a bibliometric study of collaborative librarianship (CL) during the period of 2009-2014. It was found that average number of authors per paper is 1.538. It was also clear that the average degree of author collaboration in the collaborative librarianship is 0.354, which clearly indicates its dominance upon single authored contributions. Navaneethakrishnan (2014) identified the authorship patterns and degree of collaboration of Sri Lanka in humanities and social science research with a total of 1795 records of publications authored by 3521 authors during the period 1960-2012 from SCOPUS database. The findings of the analysis revealed that the majority of the publications are contributed by multiple authors. Degree of collaboration was progressively increased over the

study span. Further, it was shown that outstanding collaborative contributors are made from United States with 15.93%. Khaparde (2011) studied the pattern of information use by researcher in Library Hi Tech during 2005-2009. This study was based on 3876 references appended to 247 articles contributed by the authors in Library Hi Tech. It was found that solo research is predominating than collaborative research. Further, the degree of research collaboration was calculated and it was found that the single authorship trend increased gradually in Library Hi Tech. Khaparde (2011) conducted a bibliometric study of Electronic Journal of Academic and Special Librarianship. It was found that single author contributions have dominated the journal with 47.95% of contributions, and in geographical based distribution of articles India have occupied the top position with 28.41% publications. On the other hand, Zafrunnisha and Pullareddy (2009) examined the authorship pattern and degree of collaboration in Information Technology by taking sampling of 17917 articles from LISA and found the predominance of the multi authored papers over single authored papers and degree of collaboration was 0.49. At this time, the author made an attempt to study the authorship pattern and degree of collaboration on Information Technology published during the period 2000-2009 in LISA. Lee, Jones and Downie (2009) examined the papers published in ISMIR proceeding of nine years and revealed that the amount of collaboration as reflected in co-authorship has increased. Pillai (2007) conducted a study of the trends in authorship pattern and collaborative research in physics with a sample of 11,412 journals and 1,328 book citations collected from the doctoral dissertations of IISc and found that team research is being preferred and average value of degree of collaboration in journals was 0.08.

About the Journal

Journal of Librarianship and Information Science (JOLIS) is the peer-reviewed international quarterly journal for librarians, information scientists, specialists, managers and educators interested in keeping up to date with the most recent issues and developments in the field. In a profession facing many challenges and a constantly evolving environment, JOLIS publishes papers from practicing librarians, information workers and academics which reflect all aspects of librarianship and information science focusing on the results of research, reports of significant developments in working practice and discussions of concerns central to the information profession. The journal publishes original papers and review articles, viewpoints and book reviews (<http://journals.sagepub.com/home/lis>).

Methodology

The present research study is concerned with the authorship pattern and degree of collaboration in the Journal of library and information science (JOLIS). The bibliographic information related to seven volumes and twenty eight issues of the journal taken from its website for the study. The data has been analyzed by using the Microsoft excel sheet as per the objectives of the study.

Objectives of the Study

1. To study the author's productivity
2. To find out distribution of contribution (volume wise).
3. To analyze co-authorship pattern of contribution.
4. To analyze year wise degree of collaboration.

Data Analysis

Authorship productive

The data pertaining to author productivity has presented in the table. It is evident from table.1 that the total average number of authors per paper is 2.27 for the relatively equal average number of authors per article when compared the total average number of authors per article. The average productivity per author is 0.44 during the year 2010-2016. Productivity has been calculated with the following formula.

$$\begin{aligned} \text{Average Authors per Paper} &= \text{No. of Authors} / \text{No. of Papers} \\ \text{Productivity per Author} &= \text{No. of Papers} / \text{No. of Authors.} \end{aligned}$$

Table 1: Authorship productive

Year	Total No. of Articles	Total No. of Authors	AAPP	PPA
2010	31	70	2.26	0.44
2011	37	78	2.11	0.47
2012	36	77	2.14	0.46
2013	42	93	2.21	0.45
2014	41	95	2.32	0.43
2015	36	89	2.47	0.40
2016	32	77	2.41	0.42
Total	255	579	2.27	0.44

Distribution of contribution (Volume wise)

It is observed from table 2 that out of total 255 contributions, highest number of the contributions i.e. 42 (16.47%) were contributed in 2013 and lowest number of contributions i.e. 31 (12.16%) were contributed in 2010. Whereas, 41(16.07%) contributions in 2014, 37(14.51%), 36(14.12%) in 2015 & 2012 and 32(12.55%).

Table 2: Distribution of Contribution

Year	Volume No.	No. of issue	No. of Contributions	%
2010	42	4	31	12.16
2011	43	4	37	14.51
2012	44	4	36	14.12
2013	45	4	42	16.47
2014	46	4	41	16.07
2015	47	4	36	14.12
2016	48	4	32	12.55
Total			255	

Co-Authorship Pattern of contribution

It is observed from the table.3 that the value of co-authorship pattern for single authored papers during 2010-2016 was highest with 12(33.33%) publications in 2015 and the year

2014 co- authorship pattern for multi authored papers highest with 32(78.05%) publications which indicated that the collaborative research is increasing over the study of scientometrics.

Table 3: Co-Authorship Pattern of Contribution

Year	Author Nature	Frequency	Total	Percentage	Cumulative
2010	Single Author	5	31	16.13	16.13
	Co-Author	26		83.87	100
2011	Single Author	11	37	29.73	29.73
	Co-Author	26		70.27	100
2012	Single Author	6	36	16.67	16.67
	Co-Author	30		83.33	100
2013	Single Author	11	42	29.19	29.19
	Co-Author	31		73.81	100
2014	Single Author	9	41	21.95	21.95
	Co-Author	32		78.05	100
2015	Single Author	12	36	33.33	33.33
	Co-Author	24		66.67	100
2016	Single Author	9	32	28.13	28.13
	Co-Author	23		71.87	100
Total			255		

Year wise degree of collaboration

It is evident from table 4 that the degree of collaboration of authors by year wise. The degree of collaboration ranges from 0.83 to 0.77. The average degree of collaboration is 0.76 during the period 2010-2016 and it brings out clearly that there exists a higher level of collaboration in the journal.

Table 4: Year wise degree of collaboration

Year	Total No. of Articles	No. of Single Authored articles	% of Articles	Multi Authored articles	% of Articles	Degree of collaboration
2010	31	5	0.0196	26	0.1019	0.84
2011	37	11	0.0431	26	0.1019	0.70
2012	36	6	0.0235	30	0.1176	0.83
2013	42	11	0.0431	31	0.1215	0.74
2014	41	9	0.0352	32	0.1254	0.78
2015	36	12	0.0470	24	0.0941	0.66
2016	32	9	0.0352	23	0.0901	0.72
Total	255	63	0.2470	193	0.7568	0.76

In order to determine the strength of collaboration (DC), the following formula suggested by Subramanyam K [19] has been employed.

$$C = \frac{NM}{NM + NS}$$

Where, DC = Degree of Collaboration

NM = Number of Multiple Authored Papers

NS = Number of Single Authored Papers

Findings

- It is found that the total average number of authors per paper is 2.27.
- It is clear from the study that out of 255 contributions, highest number of the contributions i.e. 42 (16.47%) were contributed in 2013 and lowest number of contributions i.e. 31 (12.16%) were contributed in 2010.
- It is observed from the table.3 that collaborative research is increasing in library and information science.
- It is evident from the study that the average degree of collaboration is 0.76 during the period 2010-2016.

Conclusions

In this study researchers have demonstrated the degree of author collaboration in the journal of librarianship and information science (JOLIS). This study reveals a noticeable upward trend of collaborative study in library science subject. It is concluded that this study indicates towards collaborative research work. It is also revealed that this type of study would be appeared to be of great potential in library and information science collection. The reasons for collaborative research can be attributed to the interdisciplinary nature of research.

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