

Journal of Intellectual Property Rights, 2002-2010: A Bibliometric Study

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ABSTRACT: This paper presents the findings of a bibliometric study of *Journal of Intellectual Property Rights*. A total of 332 articles carrying 1,541 journal citations during the period of 2002-2010 were analyzed. 471 authors contributed articles during the nine years. Due to the absolute domination of solo contributions, the visibility of collaborative contribution was found remarkably less. About one third of the total publications received citations, more than half of the cited articles carried just 1 citation, one fourth got 2 citations, and the rest received citations between 3 to 9 times. The average number of citations against all published articles was found to be 0.66 per article. Moreover, it was discovered that self-citations among authors constituted 22.01% of the total cited scholarly papers. The top five cited journals were *Journal of Intellectual Property Rights*, *European Intellectual Property Review*, *Research Policy*, *World Patent Information*, *Trademark Reporter*, and *Current Science*.

I. Introduction

The term *bibliometrics* was first introduced by Pitchard (1969). Bibliometric study provides careful evaluation of periodical literature by providing a complete picture of the core publications of any specific subject (Davarpanah & Aslekia, 2008). Bibliometric study is, therefore, being consistently adopted by the LIS researchers to assess and evaluate the scientific output of the published literature on any specific subject domain for a definite period through the application of bibliometric and citation indicators. Moreover, bibliometric studies have been immensely useful for librarians in selection and weeding policies. It serves as a useful tool to the academic community in identifying most popular authors and potential publications. Furthermore, it helps in determining the highly cited journals, ranking of prolific authors, authors productive pattern, the journal impact factor, and other significant details of any specific literature under study.

In this study, the authors attempt to examine the publication output of *Journal of Intellectual Property Rights* (JIPR) from 2002 to 2010. JIPR has emerged as one of the leading research

journals in the domain of intellectual property. JIPR is published bimonthly by the esteemed National Institute of Science Communication and Information Resources (NISCAIR), New Delhi, India. Though the journal had a humble beginning in 1996, it has achieved wide recognition and a global readership. As stated in its editorial objectives, it primarily intends to enhance the communication between policy makers, organizational agents, academics, and managers on the critical understanding and research on intellectual property. JIPR is indexed in *Social Sciences Citation Index*, *Social SciSearch*, and *Journal Citation Reports* (Social Sciences Edition). This journal has endeavored to enrich the contents of each issue through balanced overseas contributions. Therefore, a bibliometric study of this journal is of vital significance.

II. Objectives of the Study

The present study aims to evaluate the scholarly publication trends of *Journal of Intellectual Property Rights* from 2002 to 2010 with the application of bibliometric indicators. The key objectives of the study are as follows:

- To study the pattern of article distribution and citations by year;
- To find out the authors' degree of collaboration;
- To reveal the distribution of contributing authors by country;
- To determine the age of journal citations and the half-life of articles; and
- To present the ranking of journals cited.

III. Research Methodology

The study analyses the scholarly communication of *Journal of Intellectual Property Rights* from 2002 to 2010. Keeping the objectives of the study in mind, a total number of 1,541 journal citations from 332 articles published during the stated period were collected from the archives of the open access source journal. The citations appended at the end of each articles were photocopied. Citations in the form of books, theses, articles, and different sections of law were eliminated from the scope of the study. Only citations in the form of scholarly journal articles were pencil marked and then taken up for analysis. Concurrently, content pages of all articles were also photocopied for the sake of examining the authorship pattern and geographical distribution of contributing authors. The data thus collected were fed into MS Excel worksheet to process the gathered data for subsequent analysis. Google Scholar was used to check and explore the record of citations and authors' self-citations against all the 332 articles. The study employed required bibliometric measures to test the validity of the findings.

IV. Literature Review

There have been a limited number of single journal bibliometric studies in the published literature all across the world. Some of the relevant studies in the aforesaid direction are worthy of examinations.

Mote and Deshmukh (1996) conducted a bibliometric study on *Annals of Library Science and Documentation* and found that journals are the most cited forms of communication amongst the library and information scientists.

Shokeen and Kaushik (2004), in their study of *Indian Journal of Plant Physiology*, revealed that journal articles are predominant with more than two thirds of total citations.

Jena (2006) made an exhaustive bibliometric study of *Fibre and Textile Research* and unfolded the publication trend of this Indian journal from 1996 to 2004.

Bharvi et al. (2007) analyzed 1,317 papers published in the first fifty volumes from 1978 to 2001 of the international journal *Scientometrics* and found that the US share of the papers is constantly on the decline while that of the Netherlands, India, France and Japan is on the rise and that the scientometric output is dominated by the single-authored papers.

Zainab et al. (2009), in their bibliometric study of *Malayasian Journal of Computer Science*, reported their findings regarding the article productivity, authorship collaboration, and journal impact factor of MJCS.

Serenko et al. (2010) conducted a bibliometric analysis of a body of literature contained in 11 major knowledge management and intellectual capital peer-reviewed journals and revealed the institutional and individual productivity, co-operation patterns, publication frequency, and other related parameters.

Swain (2011) conducted a bibliometric study of *Library Philosophy and Practice* from 2004 to 2009 and revealed the partial compliance of authorship productivity pattern of LPP with Lotka's Law at a slightly greater n value.

Hussain and Fatima (2011) evaluated the characteristics of the *Chinese Librarianship: an International Electronic Journal* from 2006 to 2010 through a bibliometric analysis.

The present study endeavors to put in some new niceties to the corpus of existing literature.

V. Findings and Analysis

1. Distribution of articles and journal citations by year

Table 1 shows the distribution of articles and corresponding citations by year. It is observed that a total number of 332 articles were published in JIPR from 2002 to 2010 with a total of 1,541 journal citations, averaging 4.64 citations per article. The number of articles published per year has consistently witnessed an up-and-down trend during this period.

Table 1: Distribution of articles and journal citations by year

Year	No of Articles	No of Journal Citations	Average Citations Per Article
2002	26	60	2.31
2003	23	103	4.48
2004	26	103	3.96
2005	46	184	4

2006	37	164	4.43
2007	44	340	7.73
2008	52	257	4.94
2009	41	128	3.12
2010	37	202	5.46
Total	332	1541	4.64

2. Authorship pattern

Table 2 shows that nearly three fourths of articles (237, 71.39%) are found to be single-authored contributions, followed by two-authored (67, 20.18%). However, contribution from three authors (16, 4.82 %) and more (12, 3.61%) are found quite negligible. Hence, there is a clear domination of solo contribution to JIPR from 2002 to 2010.

Table 2: Authorship pattern

Authors	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total	%
Single	19	18	21	32	22	30	38	29	28	237	71.39
Two	4	3	3	9	11	12	11	6	8	67	20.18
Three	1	1	1	4	2	2	0	4	1	16	4.82
>Three	2	1	1	1	2	0	3	2	0	12	3.61
Total	26	23	26	46	37	44	52	41	37	332	100.00

3. Degree of authors' collaboration

Table 3 shows the degree of collaboration of authors in JIPR. It was calculated using Subramanian's formula: $C = \frac{Nm}{Nm + Ns}$, where C =degree of collaboration, Nm =number of multi-authored works, and Ns =number of single-authored works. It is found that the degree of collaboration in JIPR ranged from 0.19 to 0.41 during the publication phase under study. In comparison, Ramesh and Nagraju (2002) found the degree of collaboration in *International Journal of Tropical Geography* to be from 0.85 to 0.94. Therefore, the collaborative works are not as remarkably observed in JIPR. In other words, solo contributing authors are dominant in JIPR, as reflected in Table 3.

Table 3: Degree of authors' collaboration

Year	Ns	Nm	C
2002	19	7	0.27
2003	18	5	0.22
2004	21	5	0.19
2005	32	14	0.3
2006	22	15	0.41
2007	30	14	0.32
2008	38	14	0.27
2009	29	11	0.28

2010	28	9	0.27
Total	237	94	0.28

4. Ranking of authors

A total number of 471 authors contributed to 332 articles published in JIPR during 2002 to 2010. The ranking of most prolific authors in according to their number of contributions to JIPR is showed in Table 4. It is found that Jakir Thomas has contributed a maximum number of 21 articles, followed by M. D. Nair (17 articles), V. K. Gupta, Sudhir Kochar (8 articles each), and T. K. Saha (4 articles). Furthermore, 9 authors contributed three articles each, 35 authors two articles each, and 316 authors one article each.

Table 4: Ranking of authors by number of publications

<i>Authors</i>	<i>No of Articles</i>	<i>Rank</i>
Thomas, Zakir	21	1
Nair, M. D.	17	2
Gupta, V. K.	8	3
Kochar, Sudhir	8	3
Saha, T. K.	4	4
Basheer, Shamnad	3	5
Bhattacharjee, S.	3	5
James, T. C.	3	5
Janodia, M. D.	3	5
Ligade, V. S.	3	5
Majumdar, Arka	3	5
Raju, K. D.	3	5
Sreedhar, D.	3	5
Saha, Subhasis	3	5
35 authors	2	6
316 authors	1	7

5. Distribution of authors by country

Table 5 shows a list of all countries from where contributions were originated. The top five countries were India, USA, UK, China, and Switzerland. Not surprisingly, more than three-fourths of contributions were from the journal's home country of India. However, the journal has scholarly contents from authors in different parts of the world. Most significantly, it has a fairly wide author distribution in 24 countries, including Geneva, Greece, Italy, Malaysia, Manila, Portugal, South Africa, Taiwan, and Turkey.

Table 5: Distribution of authors by country

<i>Country</i>	<i>No of Authors</i>	<i>Cumulative Authors</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
India	375	375	79.96	79.96

USA	31	406	6.61	86.57
UK	17	423	3.62	90.19
China	5	428	1.07	91.26
Switzerland	5	433	1.07	92.33
Netherlands	4	437	0.85	93.18
Srilanka	4	441	0.85	94.03
Australia	3	444	0.64	94.67
Iran	3	447	0.64	95.31
Spain	3	450	0.64	95.95
Korea	2	452	0.43	96.38
Chile	2	454	0.43	96.80
New Zealand	2	456	0.43	97.23
Germany	2	458	0.43	97.66
Cuba	2	460	0.43	98.08
France	2	462	0.43	98.51
Geneva	1	463	0.21	98.72
Greece	1	464	0.21	98.94
Italy	1	465	0.21	99.15
Malaysia	1	466	0.21	99.36
Manila	1	467	0.21	99.58
Portugal	1	468	0.21	99.79
South Africa	1	469	0.21	100.00
Taiwan	1	470	0.21	100.22
Turkey	1	471	0.21	100.43

6. Distribution of Indian authors by state

Table 6 shows how Indian contributors were geographically distributed. It is found that the maximum JIPR authors belonged to Delhi, which is the home state of the journal (106, 28.27%), followed by West Bengal (53, 14.13%), Karnataka (37, 9.87%), Maharashtra (30, 8%), Tamil Nadu (27, 7.20%), and Andhra Pradesh (27, 7.20%), whereas Uttaranchal had only one author. Interestingly, more than half of Indian authors were from three major states of India, namely, Delhi, West Bengal, and Karnataka.

Table 6: State wise distribution of Indian authors

<i>State</i>	<i>No. of Contributors</i>	<i>Cumulative Contributors</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
Delhi	106	106	28.27	28.27
West Bengal	53	159	14.13	42.40
Karnataka	37	196	9.87	52.27
Maharashtra	30	226	8.00	60.27
Tamil Nadu	27	253	7.20	67.47

Andhra Pradesh	27	280	7.20	74.67
Uttar Pradesh	15	295	4.00	78.67
Madhya Pradesh	14	309	3.73	82.40
Rajasthan	13	322	3.47	85.87
Kerala	12	334	3.20	89.07
Chattishgarh	11	345	2.93	92.00
Gujarat	9	354	2.40	94.40
Sikkim	6	360	1.60	96.00
Jharkhand	5	365	1.33	97.34
Jamu & Kashmir	4	369	1.07	98.40
Haryana	3	372	0.80	99.20
Himachal Pradesh	2	374	0.53	99.74
Uttaranchal	1	375	0.27	100.00

7. Distribution of scholarly papers by citation

Table 7 shows that out of 332 articles, 109 (32.83%) articles were cited and 223 (67.17%) articles were not cited according to Google Scholar, which indicates that the difference is quite wide and remarkable. It is evident that, more than half of the cited articles carry just one citation and almost one fourth of the cited articles contain two citations. The rest of the cited articles have got citations between 3 to 9 times. The average number of citations for 109 articles is 2.11, but as a whole for all cited and not cited articles is 0.66 per article.

Table 7: Distribution of citations

<i>Number of citations</i>	<i>Scholarly Papers</i>	<i>Percentage</i>
1	55	50.46
2	27	24.77
3	13	11.93
4	3	2.75
5	4	3.67
6	3	2.75
7	2	1.83
9	2	1.83
Total	109	100.00

8. Author self-citation

The analysis of the data revealed a self-citation tendency among authors. To find out the percentage of author self-citation, all 109 cited scholarly papers were thoroughly examined. Table 8 indicates that 24 scholarly papers carried self-citations, which constituted 22.01% of the total cited scholarly papers.

Table 8: Author self-citation

<i>Number of citations</i>	<i>Scholarly Papers</i>	<i>Percentage</i>
1	15	62.5
2	5	20.83
3	4	16.67
Total	24	100.00

9. Age distribution of citations and publication half life

The analysis of age of citations predicts the useful life of scholarly documents that are used over a period of time. Moreover, it assists the librarians in selection and weeding policies. Table 9 shows the age distribution of cited journals.

Table 9: Age distribution of cited journals

<i>Year</i>	<i>No of Citations</i>	<i>Cumulative Citations</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
Up to 1	49	49	3.18	3.18
2	47	96	3.05	6.23
3	59	155	3.83	10.06
4	89	244	5.78	15.83
5	146	390	9.47	25.31
6	153	543	9.93	35.24
7	131	674	8.50	43.74
8	123	797	7.98	51.72
9	124	921	8.05	59.77
10	90	1011	5.84	65.61
11	80	1091	5.19	70.80
12	74	1165	4.80	75.60
13	61	1226	3.96	79.56
14	61	1287	3.96	83.52
15	23	1310	1.49	85.01
>15 <83	231	1541	14.99	100.00

Table 9 shows that the citations of journals ranged from very recent year of publication to the 85th year. There has been an increasing trend of citations of journals up to sixth years and that from the sixth year onwards there has been a declining trend. The sixth year of publication itself has recorded the highest number of citations (153, 9.93%). It is evident that the estimated half life of cited journals is 8 years.

10. Ranking of journals

Table 10 presents a list of ranked journals (top 15) in the decreasing order of citations. It is found that the source journal (*Journal of Intellectual Property Rights*) has been cited most with 129 citations, followed by five other journals, namely, *European Intellectual Property Review* (38 citations), *Research Policy* (32 citations), *World Patent Information* (31 citations), *Trade Mark*

Reporters (31 citations), and *Current Science* (23 citations). Nevertheless, *American University Law Review*, *Chicago-Kent Journal of Intellectual Property*, *European Competition Law Review*, *Harvard Law Review*, *Journal of Law and Economics*, *Journal of Nano Particle Research*, *Journal of World Intellectual Property*, *Michigan Law Review*, *Nature Bio Technology*, *University of Pennsylvania Law Review*, and *Vanderbilt Law Review* are all ranked the fifteenth with 7 citations each. It is clear that JIPR authors have most frequently referred to the source journal during the process of writing their papers.

Table 10: Ranking of journals

<i>Rank</i>	<i>Name of the Journal</i>	<i>No. of citations</i>
1	Journal of Intellectual Property Rights	129
2	European Intellectual Property Review	38
3	Research Policy	32
4	World Patent Information	31
4	Trademark Reporter	31
5	Current Science	23
6	Economic and Political Weekly	19
7	Berkeley Tech Law Journal	16
8	IDEA: The Journal of Law and Technology	14
9	Journal of the Patent and Trademark Office Society	13
10	Harvard Journal of Law and Technology	12
10	Official Journal of European Communities	12
11	Science	11
11	Nanotechnology Law and Business	11
11	Fordham Intellectual Property Media & Entertainment Law Journal	11
11	Cardo Arts & Entertainment Law Journal	11
12	Marquette Intellectual Property Law Review	10
12	Journal of International Economics	10
12	Hastings Communications & Entertainment Law Journal	10
12	Scientometrics	10
13	Nature	9
14	Journal of Intellectual Property Law	8
14	Journal of International Economic Law	8
14	Nucleic Acids Research	8
14	Stanford Law Review	8
14	The Journal of World Intellectual Property Rights	8
14	Utah Law Review	8
14	Vanderbilt Journal of Entertainment Law & Practice	8
14	Wall Street Journal	8
15	American University Law Review	7
15	Chicago-Kent Journal of Intellectual Property	7
15	European Competition Law Review	7

15	Harvard Law Review	7
15	Journal of Law & Economics	7
15	Journal of Nanoparticle Research	7
15	Journal of World Intellectual Property	7
15	Michigan Law Review	7
15	Nature Biotechnology	7
15	University of Pennsylvania Law Review	7
15	Vanderbilt Law Review	7

11. Summary of findings

The number of articles published in JIPR on an average per year has consistently witnessed an up and down trend during the period of 2002-2010. There is an utter domination of solo contribution to JIPR during the stated period. The degree of collaboration in JIPR ranged from 0.19 to 0.41 during the publication phase under study. Thomas Jakir was found to be the leading contributor with a maximum contribution of 21 articles, followed by Nair, M D (17 articles), Gupta, V K and Kochar Sudhir (8 articles each). The top five countries that contributed maximum articles to JIPR were India, USA, UK, China, and Switzerland. Maximum Indian contributions to JIPR are hailed from Delhi, followed by West Bengal and Karnataka. The estimated half-life of journals is found to be 8 years. The top five cited journals are *Journal of Intellectual Property Rights*, *European Intellectual Property Review*, *Research Policy*, *World Patent Information*, *Trademark Reporter*, and *Current Science*.

VI. Conclusion

Journal of Intellectual property Rights has successfully completed 15 years of publication. It has got world-wide recognition and is steadily growing to be a very promising journal in the area of property rights by attracting scholarly articles from around the world. Moreover, the scholarly contents of this journal are fairly cited. However, if editorial policy of this journal takes the citation factors into cognizance and accordingly concentrates on the quality output, JIPR can surely increase its impact factor and influence in the future.

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