

A BIBLIOMETRIC ANALYSIS OF THE 'IFLA JOURNAL' DURING 2006-2010

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ABSTRACT

Points the bibliometric analysis of the IFLA Journal for the period of 2006-2010. The study demonstrates and elaborates on the various aspects of the IFLA Journal, such as its distribution of articles by year, authorship patterns, distribution of contributions by institutions, subject distributions, citation patterns, length of article, rank of cited authors, and geographical distribution of authors. Provides a comprehensive overview of authorship in Library and Information Science.

KEYWORDS: Bibliometric Analysis, Content Analysis, LIS Journals

Introduction

Bibliometric is a mathematical and statistical method to study and identify patterns in the usage of materials and services within a library or to analyze the historical development of a specific body of literature, especially its authorship, publication, and use. [Sengupta \(1974\)](#) has defined bibliometrics as organization, classification and quantitative evaluation of publication pattern of macro and micro-communication along with their authorship by mathematical and statistical calculations. Such studies help in the selection of documents, saving millions of rupees of the organizations. It helps in planning and organization of resource sharing, networking and consortia. The institutions may eliminate rarely cited titles from their subscription lists and also weed out unused material to save costly stocking space and reduce maintenance cost. It has emerged as a plunge area of research incorporating different branches of human knowledge. It is a fast developing area in Information Science, which is defined as a discipline that investigates the properties and behavior of information.

The term "bibliometrics" was coined by [Pritchard in 1969](#). A pioneering example of a bibliometric study was statistical analysis of the literature of comparative anatomy from 1543 to 1860, done by counting book and journal titles, and grouping them by countries of origin and periods. In 1923, a study was conducted by [Hulme](#), entitled "Statistical Analysis of the History of Science". His analysis was based on the entries in the English International Catalogue of Scientific Literature. A third study was the work of Gross and Gross reported in 1927. They counted and analyzed the citations in articles from the Journal of the American Chemical Society, and produced a list of journals deemed important to chemical education. Another prominent work was Bradford's article on the distribution of literature in lubrication research. It is an important part of the theoretical foundation of bibliometrics, "Bradford's Law of Scattering".

IFLA Journal

Each issue of the IFLA Journal covers the latest news of activities and articles, selected to reflect the variety of the international information profession, ranging from freedom of information, preservation and services to the visually impaired and intellectual property. The journal is published by SAGE Group of Publishing quarterly.

IFLA is an independent association that represents libraries and library associations around the world. At an international conference of librarians and booklovers in Prague in 1926 a proposal to set up an international committee with representatives of national library associations was accepted. This was acted upon during the British Library Association conference in Edinburgh, Scotland in 1927, when an international library and bibliographic committee was set-up by the representative associations from fifteen countries. IFLA was registered in Netherland in 1971. The name was changed to International Federation of Library Associations and Institutions in 1976. It's headquarter is located at The Royal Library, the National Library of the Netherlands, in The Hague. Membership in IFLA is open to associations and institutions; affiliation is available for individuals. Now it has 1700 members from 155 countries worldwide.

Objective of the Study

The objective of the present study is to address the following aspects:

- To study year-wise distribution of papers,
- To study authorship pattern of the papers,
- To study average number of references per paper,
- To study average length of the papers,
- To study subject-wise distribution of the papers, and
- To study institute-wise distribution of papers etc.

Literature Review

Various authors have done bibliometric analyses of papers published in various journals in different fields. [Thanuskodi \(2010\)](#) has done bibliometric analysis of the journal 'Library Philosophy and Practice' from 2005-2009. The majority of articles of bibliometric study contain bibliographic references to journals, books, conference proceedings, dissertations, etc. [Kumar and Naqvi \(2010\)](#) revealed the research output of the Jamia Millia Islamia University, New Delhi, in the field of natural sciences. [Kumar and S. Kumar \(2010\)](#) analyzed 8093 citations given in the Journal of Oilseed Research (JOR) published during 1993 to 2004. The paper focuses that 20 core periodicals could cover more than 50% references and also indicates that collaborative research is new trend in oil seeds research. [Singh and Ahmad \(2006\)](#) conducted a study under the title "A Bibliometric Study of Literature on Digital Libraries" is an attempt to illustrate that over 1,000 articles for the period 1998-2004 were collected from LISA Plus. [Manoj Kumar and Murthy \(2011\)](#) focused DESIDOC Journal of Library and Information Technology (DJLIT) is one of the premier journals of library and information science being published in India. The analysis covers various parameters like growth pattern, content coverage, authorship patterns, subject-wise distribution of articles, etc. [Tan, Goudarzlou and Chakrabarty \(2010\)](#) have done a bibliometric analysis of service research from Asia. [Wen, Yu and Ho \(2009\)](#) have examined bibliometric tools applied to analytical articles: the example of gene transfer-related research. [Frandsen \(2008\)](#) study aimed to investigate the use of open access by researchers from developing countries and is thus a supplement to the existing author surveys and interviews. [Patra, Bhattacharya and Verma \(2006\)](#) analyzed the growth

pattern, core journals and authors' distribution in the field of bibliometrics, using data from Library and Information Science Abstract (LISA).

Methodology

The methodology used in the present study is bibliometric analysis, which is in fact used to study the bibliographic attributes of the articles published in the IFLA Journal during the five-year period of 2006-2010. One hundred twenty nine articles in 20 issues of the journal have been taken up for the study. The authors have extracted the information from the IFLA journal website and then used MS Excel to organize, tabulate and analyze the data for the study.

Data Analysis

The researchers have extracted all the required information related to the articles published from 2006 to 2010, from the IFLA Journal website. All the details such as author(s), title, year of publication, institutional affiliation, etc. of all articles have been used for the following analysis.

Table 1: Year Wise Distribution of Articles

Years	Vol.	No. of Articles Issue-Wise				No. of Articles	%
		1	2	3	4		
2006	32	6	7	9	11	33	25.58
2007	33	6	8	5	6	25	19.38
2008	34	8	5	6	5	24	18.6
2009	35	6	7	5	5	23	17.83
2010	36	7	6	5	6	24	18.6
Total	5 Years	33	33	30	33	129	100

Table 1 shows the distribution of articles in the journal by year. Of the total 129 articles, the maximum number of articles were in the year 2006, contributing 33(25.58%) to the total number of articles, while 25(19.38%) in the year 2007, followed by distribution of 24(18.60%) article in 2008 as well as in 2010. The minimum numbers of articles were in the year 2009 with 23 articles, which is 17.83% of the total number of articles published in the period.

Table 2: Category Wise Classification of Papers

Categories	Year					No. of Articles	%
	2006	2007	2008	2009	2010		
Technical paper	4	3	5	3	3	18	13.95
Research paper	8	6	5	5	5	29	22.48
Conceptual paper	6	6	4	3	5	24	18.6
Viewpoint	4	1	5	3	4	17	13.18
Case study	1	3	1	3	0	8	6.2
Literature review	4	3	2	3	4	16	12.4
General review	6	3	2	3	3	17	13.18
Total	33	25	24	23	24	129	100

Table 2 focuses on the category wise classification of the papers published during the period from 2006 to 2010. The study reveals that the maximum number of articles were published as under the category of research paper i.e. 29(22.48%), whereas 24(18.60%) articles were published under the category of conceptual paper. There were a small numbers of articles published under the case study category i.e. 8(6.20%).

Table 3: Authorship Patterns

Authors	Year					No. of Articles	%
	2006	2007	2008	2009	2010		
Single Author	24	18	13	14	14	83	64.34
Two Authors	4	5	6	7	7	29	22.48
Three Authors	4	1	4	1	2	12	9.3
Four Authors	1	1	1	1	0	4	3.1
Five Authors	0	0	0	0	1	1	0.78
Total	33	25	24	23	24	129	100

Table 3 shows the authorship patterns of the articles published during the period of study. The largest number of articles had been published by single author 83(64.34%). This is followed by two authors 29(22.48%), and three authors 12(9.30%). There were small percentage of articles published by four and five authors with 4(3.10) and 1(0.78%) of the total articles. The data clearly reflects that the large number of articles by single author means that there are no well established research groups in the area and the subject is a new and emerging one. Chen and Chen (2005) have found that in the area of metadata research in library and information science maximum papers are published by single authors.

Degree of Collaboration in the Chinese Librarianship

To determine degree of collaboration in quantitative terms, the formula given by [K. Subramanyam \(1983\)](#) was used. The formula is:

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

Where **C**= Degree of Collaboration

NM= Number of multi authored papers

NS= Number of single authored papers

In the present study the value of **C** is

$$C = 0.643$$

$$C = \frac{83}{129}$$

As a result the degree of collaboration in the IFLA Journal is 0.643 which clearly indicates its dominance upon individual contribution.

Table 4: Subject Distribution

Categories	Year					No. of Articles	%
	2006	2007	2008	2009	2010		
Electronic Resources	3	3	0	3	4	13	10.08
Library Automation	1	0	0	0	1	2	1.55
Library and Internet	7	4	4	3	2	20	15.5
Information Literacy	1	2	0	6	3	12	9.3
Digital Libraries	1	3	3	2	5	14	10.85
Academic Libraries	4	2	2	2	0	10	7.75
Public Libraries	3	4	3	1	1	12	9.3
Special Libraries	1	1	1	3	0	6	4.65
WebOPACs/OPACs	0	1	0	0	1	2	1.55
Information Services	7	5	8	2	3	25	19.38
Others	5	0	3	1	4	13	10.08
Total	33	25	24	23	24	129	100

Table 4 shows the distribution of subject areas of the articles. The maximum number of paper i.e. 25 articles (19.38%) are related to Information services, 20(15.50%) to library and Internet, 14(10.85%) to digital library and 13(10.08%) papers distributed from electronic resources as well as others. There were small percentage of subject distributed for instance 12(9.30%), 10(7.75%), 6(4.65%) and 2(1.55%) to information literacy as well as public library, academic libraries, special library, and library automation as well as WebOPACs/OPACs.

Table 5: Institution Type with Which the Authors of Articles Were Affiliated

Authors Affiliated with	Year					No. of Articles	%
	2006	2007	2008	2009	2010		
Academic/Research Institutes	7	6	6	6	7	32	24.81
Faculty Members	10	13	14	10	11	58	44.96
Research Scholars	2	1	0	0	2	5	3.88
Special Library	3	2	0	2	0	7	5.43
Government Departments	3	1	1	2	2	9	6.98
Information/Documents Centers	3	2	3	3	2	13	10.08
Others	5	0	0	0	0	5	3.88
Total	33	25	24	23	24	129	100

Table 5 shows the type of institutions with which the authors of the articles were affiliated. 58 articles (44.96%) were from authors affiliated with faculty members. This is followed by Academic/Research Institutes with 32(24.81%), Information/Documentation Centers 13(10.08%), Government Departments 9(6.98%). Only 5 articles (3.88%) were contributed from Research Scholars and others.

Table 6: Length of Articles

No. of Pages	Year					No. of Articles	%
	2006	2007	2008	2009	2010		
01--04	6	1	3	1	2	13	10.08
05--09	20	15	10	9	15	69	53.49
10--14	6	7	6	9	4	32	24.81
15--19	0	0	3	3	3	9	6.98
20--24	0	2	1	1	0	4	3.1
25--29	0	0	1	0	0	1	0.78
Total	33	25	24	23	24	129	100

The Table 6 shows the details about the page length of the articles. 69 articles (53.49%) are 05-09 pages in length, 32(24.81%) 10-14 pages, 13(10.08%) 01- 04 pages, 9(6.98%) 15-19 pages. There is one article (0.78%) in the range of 25-29 pages.

Table 7: Citation Analysis

Citations	Year					No. of Articles	%
	2006	2007	2008	2009	2010		
01--09	9	6	4	7	7	33	25.58
10--19	10	6	4	5	3	28	21.71
20--29	5	6	4	3	7	25	19.38
30--39	1	2	2	5	4	14	10.85
40--49	2	0	2	1	1	6	4.65
50--59	1	0	0	0	2	3	2.33
60--69	0	0	1	0	0	1	0.78
70--79	1	0	0	0	0	1	0.78
> 80	0	1	1	1	0	3	2.33
NIL	4	4	6	1	0	15	11.63
Total	33	25	24	23	24	129	100

Table 7 shows the details of the number of citations appearing at the end of articles. Of the 129 articles published in the period, 33(25.58%) have citations between 01-09 in

numbers, 28 (21.71%) between 10-19, 25(19.38) between 20-29, and 15(11.63%) have no citations.

Table 8: Distribution of Citations

Year	Volume	No. of Articles Issue-wise				No. of Citations	%
		1	2	3	4		
2006	32	110	121	121	208	560	21.93
2007	33	66	222	46	106	440	17.23
2008	34	170	205	85	59	519	20.33
2009	35	91	122	224	80	517	20.25
2010	36	140	165	103	109	517	20.25
Total	5 Years	577	835	579	562	2553	100

Table 8 shows that volume numbers 32-36 of the journal have 129 articles with 2,553 citations altogether. Of these citations, volume number 32 has the highest number of citations, 560 (21.93%) and volume number 33 has the lowest number of citations, 440 (17.23%).

Table 9: Sources of Citations

Sources of Citations	Year					No. of Articles	%
	2006	2007	2008	2009	2010		
Journals	134	141	84	167	117	643	25.19
Books/monographs	110	72	110	78	111	481	18.84
Online search/websites	156	126	166	145	175	768	30.08
Conference/seminar/workshops etc.	23	13	23	30	31	120	4.7
Report(Govt./Projects/Commission/Committee)	81	61	95	69	32	338	13.24
Reference Books	36	7	15	12	12	82	3.21
Thesis/Dissertations	4	11	7	5	28	55	2.15
Newspapers/Magazines	6	6	6	5	4	27	1.06
Others	10	3	13	6	7	39	1.53
Total	560	440	519	517	517	2553	100

Table 9 shows that the majority of the authors preferred to use online search/websites as the source of reference or citation, which accounts for a 768(30.08%) out of the total 2,553 citations. The second highest used source is journal with 643(25.19%) citations. It is followed by books/monographs with 481(18.84%).

Table 10: Contributions by Country

Ranks	Name of Country	No. of Contributions	%
1	USA	34	26.36
2	South Africa	16	12.4
3	China	11	8.53
3	India	11	8.53
3	UK	11	8.53
4	South Korea	9	6.98
5	Canada	8	6.2
6	Australia	7	5.43
6	Germany	7	5.43
7	Iran	6	4.65
7	New Zealand	6	4.65
8	The Netherlands	5	3.88
8	Italy	5	3.88
8	Nigeria	5	3.88
9	Belgium	4	3.1
9	Norway	4	3.1
10	Israel	3	2.33
10	Japan	3	2.33
10	North Korea	3	2.33
10	Portugal	3	2.33
10	Sweden	3	2.33
11	Zimbabwe	3	2.33
	7 countries with 2		
12	Authors	14	10.85
	11 countries with 1		
13	Authors	11	8.53

Bibliometrically, the value of place of publication point to the nationality of a document. Place of publication is the best guide available to nationality of a document. Table 9 shows the contributions in volume nos. 32-36 of the journal by country. The study indicates that while the USA takes top position with its contribution 34(26.36%), South Africa 16(12.40%), China, India and U.K. 11(8.53%), South Korea 9(6.98%) and Canada 8(6.20%). Authors from Australia and Germany 7(5.43), Iran and New Zealand 6(4.65) and The Netherland, Italy and Nigeria have contributed 5(3.88%) separately.

Table 11: Ranked List of Cited Journals

Ranks	Name of Journals	No. of Citation	%
1	D-Lib Magazine	16	2.49
1	Libri	16	2.49
2	Journal of the American Society for Information Science	15	2.33
3	South African Journal of Libraries and Information Science,	13	2.02
4	Library Management	12	1.87
4	Library Review	12	1.87
5	IFLA Journal	11	1.71
5	Innovation	11	1.71
6	College & Research Libraries	9	1.4
6	Journal of Academic Librarianship	9	1.4
6	Journal of Documentation	9	1.4
7	Information Research	8	1.24
7	International Information & Library Review	8	1.24
7	Learned Publishing	8	1.24
7	Nigerian Libraries	8	1.24
7	Reference Services Review	8	1.24
8	African Journal of Libraries, Archives and Information Science	7	1.09
8	College & Research Libraries News	7	1.09
9	Information Development	6	0.93
9	Journal of Information Science	6	0.93
9	Journal of the Medical Library Association	6	0.93
9	Library Trends	6	0.93
9	New Library World	6	0.93
9	Online Information Review	6	0.93
9	Portal: Libraries and the Academy	6	0.93
9	Research Strategies	6	0.93
10	Harvard Business Review	5	0.78
10	Interlending & Document Supply	5	0.78
10	Library Collection, Acquisition and Technical Services	5	0.78
10	Library Journal	5	0.78
10	Science & Technology Librarianship	5	0.78
10	Scientometrics	5	0.78

10	The bottom line. Managing Library Finances	5	0.78
11	American Society for Information Science and Technology	4	0.62
11	Ariadne	4	0.62
11	Journal of Knowledge Management	4	0.62
11	Library and Information Science Research	4	0.62
11	Library and Information Update	4	0.62
11	Library Quarterly	4	0.62
11	Pakistan Library and Information Science Journal	4	0.62
11	Performance Measurement and Metric	4	0.62
11	Publishing Research Quarterly	4	0.62
11	The Electronic Library	4	0.62
12	American Libraries	3	0.47
12	Archives Science Bulletin	3	0.47
12	Canadian Journal of Communication	3	0.47
12	Computers in Libraries	3	0.47
12	Journal of Digital Information	3	0.47
12	Journal of Information Ethics	3	0.47
12	Journal of Librarianship and Information Science	3	0.47
12	Knowledge Quest	3	0.47
12	Scandinavian Public Library Quarterly	3	0.47
12	School Library Journal	3	0.47
12	Training and Development	3	0.47
13	47 Titles with 2 citation	94	14.62
14	206 Titles with 1 citation	206	32.04
Total		643	100

Table 11 shows the frequency of journals cited in issue nos. 32-36 of the IFLA Journal. D-Lib Magazine and Libri have ranks first with 16 citations (2.49%) each. Journal of the American Society for Information Science rank second with 15 citations (2.33%). The third most often cited journals are South African Journal of Libraries and Information Science, with 13 citations (2.02%).

Conclusion

The publishing trend totally depends on the output of contributors, patterns of contributions and the quality of research. The year 2006 shows the maximum number of contributions to the IFLA Journal. This study reveals that the categories of article distributions are remarkable in this technical paper. The majority of the articles were contributed by single authors. And most authors were faculty members or researchers affiliated with academic or research institutions and information/documents officers. The

United States has contributed more articles than any other countries, such as South Africa, China, India, U.K., Korea, Canada, Australia, The Netherlands etc. IFLA Journal is notably a scholarly journal that stipulates or induces fruitful research for the library and information profession.

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