

Asian Journal of Information Science And Technology (AJIST): A Bibliometric Study

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Abstract- *The present study aims to analysis the journal “Asian Journal of Information Science and Technology (AJIST)” by applied a bibliometric method of analysis. The study covers the growth of literature and authorship patterns of the journal. Further, it analyzes various other bibliometrics aspects such as subject wise distribution of article, intuition wise distribution article, country and state wise distribution of article, bibliographical wise distribution of citation and self citation.*

Keywords- Bibliometrics, Authorship Patten, Research Publications, Self-citation.

I. INTRODUCTION

Bibliometrics analysis is a branch of bibliometrics where the unit of study on documents publication patterns and bibliographic references. Bibliometrics is valuable tool for describing and promoting scientific productivity (McBurney and Novak, 2002)¹. The Alan Pritchard defined term Bibliometrics the application of mathematics and statistical methods to books and other media of communication” (Pritchard, 1969)². The productivity of publications in the context of scientific output is measured in terms of published literature. These studies are used to identify the pattern of publication, authorship, citations and journal coverage with the hope that such studies can give an insight into the dynamics of the domain under consideration. This study is an attempt to analyse the authorship patterns, type of publications, the number of citations used per article, and length of papers etc., in the field of library and information science research.

II. SOURCE JOURNAL

“Asian Journal of Information Science and Technology (AJIST)” has been selected as the source journal for this study. It is quarterly library and information science journal published by The Research Publication, India. It contains research papers in English dealings with all-aspects of fundamental research in library and information science

So for the journal has published 8 volumes, but to determine the publication pattern, the number of contribution published during the first five year 2011-2015 (i.e., from Vol. 1 to 5) has been taken for this study.

III. OBJECTIVES OF THE STUDY

The objectives of the present study are listed below:

- To find out the Chronological wise distribution of articles/publications.
- To study the Authorship pattern.
- To determined the Subject-wise distribution of articles in library and information science research publications.
- To know Institute wise distribution of articles.
- To observe the Geographical wise distribution of publication.
- To study Bibliographical and year wise distribution of citation.
- To calculate the average length of articles.
- To estimate the pattern of Self – Citation.

IV. HYPOTHESES

1. Multi author contribution papers are higher in number compared to single author papers.
2. There is a considerable level of variation in different branches in library and information research publications or articles.

V. METHODOLOGY

For this study the volume 1-5 (2011-2015) was taken into consideration. Data were collected with adequate detail such as title of article, name of the contributors, and their address and affiliations details for each article. At the same time, the reference appended by the respective authors at the end of each article were also counted and tabulated. Finally, all the collected data were analysed for making observations.

VI. DATA ANALYSIS

Table 1 Chronological wise distribution of articles

S. No	Volume Number	Year	Number of Publication/article	Percentage
1.	1	2011	23	21.30
2.	2	2012	24	22.22
3.	3	2013	29	26.85
4.	4	2014	19	17.59
5.	5	2015	13	12.04
Total			108	100

Table 1 gives the chronological wise distribution of articles in source journal. The number varies form years to year. Out of 108 articles, the maximum number or articles published in the year 2013 which share 26.85 percent to the total publication. The minimum number of articles (13) are in the year of 2015.

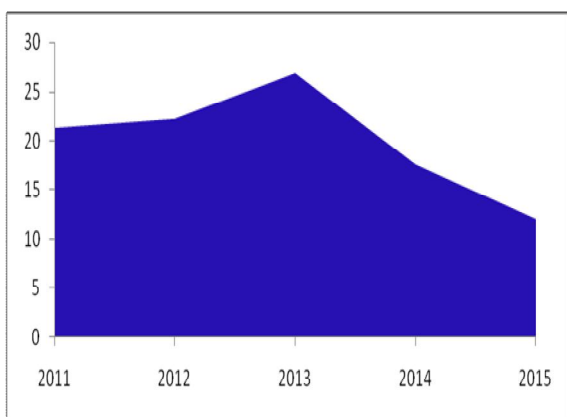


Table 2 Authorship pattern

S.NO	Year	No. of Author				total	percentage
		Single author	Two authors	Three authors	More than three authors		
1.	2011	8	10	3	2	23	21.30
2.	2012	4	14	5	1	24	22.22
3.	2013	3	15	11	-	29	26.85
4.	2014	4	12	1	2	19	17.59
5.	2015	3	8	1	1	13	12.04
Table		22-(20.37)	59-(53.70)	21-(19.44)	6-(5.5)	108	100

Table 2 indicates the authorship pattern in the journal “Asian Journal of Information Science and Technology (AJIST)”. It could be observed that more than two authors collaborated papers occupied the first position (53.70%) in respect to total number of articles published during the period of analysis. Single author papers come next in order (20.37%) of sharing the total output during the period of examination. Three authors contributed papers occupy the third position (19.44%) with regard to total output noted during the study. More than three authors collaborated papers occupy the fourth position (5.5%) with respect to total number of papers recorded in the study period.

Table 3 Ranking of authorship pattern

Rank	Authorship pattern	Number of contribution	Percent of contribution	Cumulative of contribution	Percent of Cumulative contribution
2	Single author	22	20.37	22	20.37
1	Two authors	59	54.62	81	74.99
3	Three authors	21	19.44	102	94.43
4	More than three authors	6	5.6	108	100

Table 3 indicates the ranking of the authorship pattern. Two author collaborative papers occupies the first rank. Single author papers come next in order of sharing to the total output during the period of examination. Three authors paper come under the third position and more than three authors paper comes under fourth rank in this study. It indicate that majority of the authors prefer to publish their paper jointly with others.

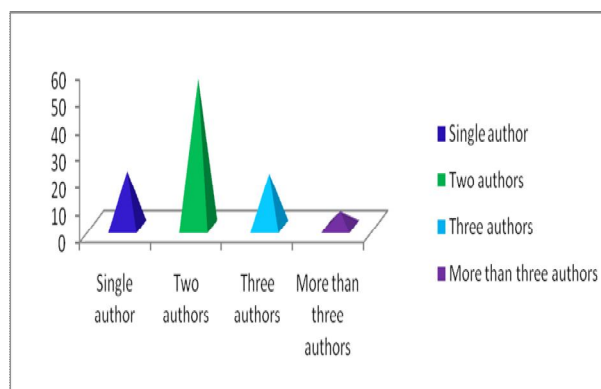


Table 4 Single Vs Multi – Authored Articles in Library and Information science Research

Year	Single author contribution		Multi authored contribution		Total
	Articles	Percentage	Articles	Percentage	
2011-2015	22	20.37	86	79.63	108

Table 4 shows that the distribution of single and multi authored articles published in the field of library and information science. It is found that 20.37 percent of the articles are published by single author and 79.63 percent of the articles are by multi authors. It is evident from the table that single author contributions are very less in number compared to multi authored papers. It could be learnt from the above discussion that majority of the authors prefer to publish their paper jointly with others.

Table 5 Subject wise distribution of article in “Asian Journal of Information Science and Technology (AJIST)”

S.No	Subject	No. of Articles	Percentage
1.	User studies / Information seeking behavior	26	24.07
2.	Scientometrics and bibliometrics	26	24.07
3.	Information Communication Technology	14	12.26
4.	Library Management	12	11.11
5.	Collection Development	7	6.48
6.	Internet & E- resources / Digital Library	18	16.67
7.	Information Literacy	2	1.85
8.	Information sources and services	3	2.78
Total		108	100

Table 5 reveals that Subject wise distribution of article in “Asian Journal of Information Science and Technology (AJIST)”. It is observed from the table that out of 108 articles published during the study period, majority (24.07%) of the paper published in User studies/ information seeking behavior and Scientometrics/Bibliometrics. It is followed by (16.67%) of the paper published in Internet & E-resources / Digital library. It is also shows that (12.26 %) of them paper published “Information Communication Technology” and 11.11 percent of the papers published in Library Management.

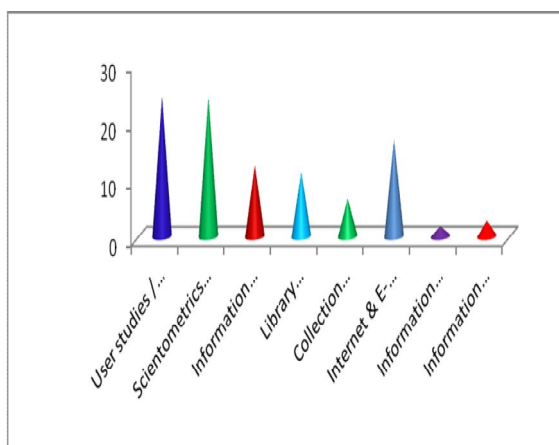


Table 6 Institution wise distribution of article 2011-2015

S.No	Institution	No. of contribution	Percentage	Cumulative percentage	Rank
1.	Annamalai university	17	15.74	15.74	1
2.	Bharathiar university	9	8.33	24.07	2
3.	Manonmaniam sundaranar university	8	7.41	31.48	3
4.	Karpagam university	8	7.41	38.89	3
5.	Bharathidasan university	5	4.63	43.52	4
6.	North eastern hill university	3	2.78	46.3	
7.	Bengal engineering and science university	3	2.78	49.08	
8.	Bishop Heber college	2	1.85	50.93	
9.	Karnataka veterinary animal and fisheries science university	2	1.85	52.78	
10.	BB Ambedkar university	2	1.85	54.63	
11.	Kongunadu arts and science college	2	1.85	56.48	
12.	Pondicherry university	2	1.85	58.33	
13.	Alagappa university	2	1.85	60.18	
14.	Banarasa hindu university	2	1.85	62.03	
15.	Karunya university	2	1.85	63.88	
16.	Periyar university	2	1.85	65.73	
17.	Benne state university	2	1.85	67.58	

18.	AJ college of pharmacy	1	0.93	68.51
19.	African Nazarene university	1	0.93	69.44
20.	Western delta university	1	0.93	70.37
21.	Indian pharmacopoeia commission	1	0.93	71.3
22.	Taisolarin university	1	0.93	72.23
23.	CK college of engineering and technology	1	0.93	73.19
24.	Periyar maniammai university	1	0.93	74.12
25.	Tumjur university	1	0.93	75.05
26.	Center for information technology	1	0.93	75.98
27.	KS institute of technology	1	0.93	76.91
28.	Caledonin college of engineering	1	0.93	77.84
29.	Sathi mariamman engineering college	1	0.93	78.77
30.	Vinayaka missions university	2	1.85	80.62
31.	SA jain college	1	0.93	81.55
32.	Srimad andavan arts and science college	1	0.93	82.48
33.	Coimbatore institute of engineering and technology	1	0.93	83.41
34.	Pioneer kumaraswamy college	1	0.93	84.34
35.	University of madras	2	1.85	86.19
36.	Velammal engineering college	2	1.85	88.04
37.	Alum karibasapp institute of management	1	0.93	88.97
38.	Angal college of engineering and technology	1	0.93	89.9
39.	GKVK	1	0.93	90.83
40.	Savar adhar Chandra high school	1	0.93	91.76
41.	KL university	1	0.93	92.69
42.	Indian institute of information technology	1	0.93	93.62
43.	University of culcutta	1	0.93	94.55
44.	Gulbarga university	1	0.93	95.48
45.	Dr. M.G.R medical university	1	0.93	96.41
46.	Shrimata vaishno devi university	1	0.93	97.34
47.	Narayana guru college of engineering	1	0.93	98.27
48.	CARE group of institutions	1	0.93	99.2
49.	Rev. Jacob memorialchristian college	1	0.93	100

Table 6 shows the institution wise distribution of articles in “Asian Journal of Information Science and Technology (AJIST)”. It is observed from the table that Annamalai University Ranks first in order sharing 17.59 % of the total publication of research articles in source journal. It is followed by Bharathiar University 8.33%, Manonmaniam Sundaranar University 7.41 %, Karpagam University 7.41% Bharathidasan University 4.63%, of the total research articles published over the study period.

Table-7 Country wise distribution of articles

S.No	Rank	Country	No. of contribution	percentage
1.	1	India	101	93.52
2.	2	Nigeria	4	3.70
3.	3	Bangladesh	1	0.93
4.	3	Saudi Arabia	1	0.93
5.	3	Kenya	1	0.93
Total			108	100

Table – 7 show that country wise distribution of articles published during the study period. Out of 108 total publication, majority 101 (93.52%) articles contributed by India and 4 (3.70%) of them by African countries.

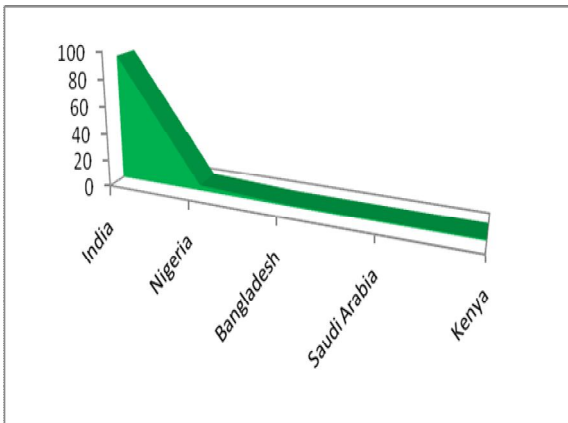


Table 8 State wise distribution of articles

S. No	Rank	State	No. of contribution	percentage
1.	1	Tamilnadu	75	74.26
2.	2	Karnataka	7	6.93
3.	2	Uttar Pradesh	7	6.93
4.	3	West Bengal	3	2.97
5.	3	Meghalaya	3	2.97
6.	4	Pondicherry	2	1.98
7.		Haryana	1	0.99
8.		Jammu and Kashmir	1	0.99
9.		Arunachala Pradesh	1	0.99
10.		Calcutta	1	0.99
		Total	101	100

Table 8 shows that State wise distribution of articles published during the study period. Out of 101 total Indian publication, majority 75 (69.44%) articles contributed by Tamil Nadu, each seven publication contributed by Karnataka and Uttar Pradesh.

Table 9 Bibliographical wise distribution of citations

S. No	Forms documents of	Total citation	Percentage
1	Journal	716	80.63
2	Book	103	11.60
3	Conference Proceeding	45	5.07
4	Thesis	8	0.90
5	Report	5	0.56
6	Year book	3	0.34
7	Hand book	8	0.90
	Total	888	100

Table 9 shows the bibliographical wise distribution of citation. Citation were divided in to the following categories namely Journal, Book, Conference Proceedings, Thesis, Report, Project, Year Book, Hand Book. Though various other forms were present but the convenience they were merged in to the above limited numbers. Table represents list of the cited documents. It has been seen that Journals are predominantly in all the years followed by Books. Out of the total citation, Journals constitute (80.63%) whereas Year Books constitute only 0.34%.

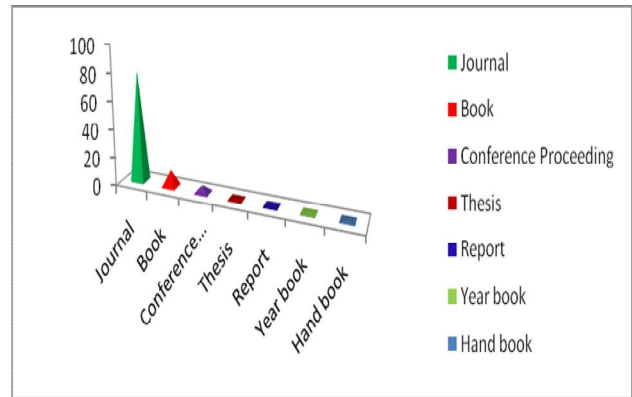


Table 10 Years wise distribution of citation

S. No	Vol. No	Year	Number of Citation	Percentage	Cumulative no. of Citation	Percent of Cumulative Citation
1.	1	2011	126	14.19	126	14.19
2.	2	2012	180	20.27	306	34.46
3.	3	2013	231	26.01	537	60.47
4.	4	2014	201	22.64	738	83.11
5.	5	2015	150	16.89	888	100
		Total	888	100		

Table 10 shows that the Year wise distribution of citations. Citation per year is varying from year to year. The higher number of citation per articles available in the year of 2013 and lowest number of citation available is in the year 2011.

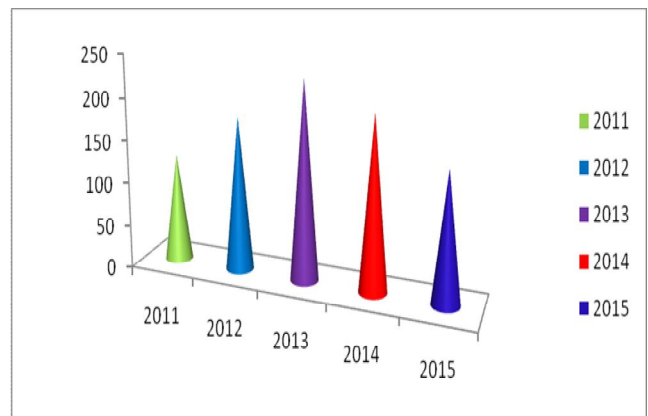


Table 11 Average length of article (2011-2015)

Year	No. Articles of	Cumulative no. of articles	Pages	Cumulative no. of Pages	Average page per articles
2011	23	23	134	134	5
2012	24	47	119	253	5
2013	29	76	153	406	5
2014	19	95	127	533	7
2015	13	108	82	615	6
Total	108		615		28

Table 11 shows that length of articles for the year 2011-2015. It is observed from the table the highest average page per article 7.0 in the year of 2014 and lowest average page per articles is 5.0 in the year of 2011, 2012 and 2013.

Table 12 Pattern of Self citation

S. No.	Subject wise distribution	Number of self citation	Percentage
1.	User studies / Information seeking behavior	32	3.60
2.	Scientometrics and bibliometric	34	3.83
3.	Information Communication Technology	21	2.36
4.	Library Management	19	2.14
5.	Collection Development	5	0.56
6.	Internet & E- resources / Digital Library	9	1.01
7.	Information Literacy	1	0.11
8.	Information sources and services	5	0.56
	Total	126	14.17

Table 12 indicates Self citation used by various areas "Asian journal of information science and technology (AJIST)". It is inferred that library and information science researchers used 888 citation out of these self citation made by them account to 126 and it takes 14.17% of the total citations.

VII. FINDINGS

- The result shows that chronological wise distribution of articles the maximum number of articles published the year 2013.
- It is found from the study that majority of the papers were two authors publication with the percentage of 53.70% during the study period.
- Regarding to ranking of authorship pattern, two authors paper occupies the first rank.
- It is found that, out of 108 total articles published during the study period, maximum number of articles each (26) published in the subject of user studies / information seeking behavior and Scientometrics / bibliometrics.
- Regarding to institution wise distribution of articles, maximum number of articles are contributed by Annamalai University, Tamilnadu with sharing 15.74 percent of the total publication.
- The findings of country wise distribution of articles shows that out of 108 total articles published during the study period, 101 articles were published by our country, India
- Regarding to bibliographical wise distribution of citation, the highest 80.63 percent of the citations belongs to "Journal" documents.
- The findings of year wise distribution of citation shows that the highest 231 citations available in the year of 2013 out of 888 total citations during the study period.
- It is found that higher average page per articles is 7 in the year 2014.
- Regarding to pattern of self citation, out of 126 self citation, scientometrics and bibliometrics covered 34 self citations with 3.83 percent.

VIII. CONCLUSION

Bibliometric study is one of the basic and strong areas of the research in the field of library and information science. Bibliometric studies do provide some guidelines for the librarians and information scientist in the decision making process in their acquisition policy. These finding are much helpful for librarians and information scientists while taking decision regarding to subscription of periodical to a library.

From the above study, it could be understood that the user studies and bibliometrics are major areas of research in library and information science where number of research articles have been published. The findings of the study has given a clear picture to the subject experts and research scholars to select their research area for his Ph.D programme as well as to send a research proposal to get financial assistance from the funding agencies.

It is also evident from the study that even though the UGC has given more points to single author publication but majority of the research scholars and subject experts are very interesting and preferring to do their research in jointly with others, definitely it will support and enhance the inter disciplinary research in the field of library and information science.

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