

SCIENTOMETRIC ANALYSIS OF COLLECTION BUILDING (2010-2014)

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ABSTRACT: - *The present study attempts on the Scientometric analysis of Journal Collection Building. It is based on the references appended to International Journal of “Collection building” during 2010-2014. The present study is based on 1665 references appended to 105 articles contributed by the authors in Collection Building. It was found that journals citations are more in number than the other citations. In authorship pattern it was found that solo research is predominant then collaborative research. The study shows the period of Collection building is 5 years approximately.*

KEYWORDS- Scientometrics, Distribution of Contributions, Degree of collaboration, Collection Building.

INTRODUCTION

Scientometricians explain about input and outputs resource in terms of organizational structure. They develop benchmarks to evaluate the quality of information resources and packages of information for decision making in science. Scientometrics is the study dealing with the quantification of written communications, which helps, in the measurement of the published knowledge. It throws light on the pattern of growth literature, Inter relationship among different branches of knowledge, productivity, authorship patten, and degree of collaboration, pattern of collection building, and their use. The

present study is based on the references appended to International Journal of “Collection building” during 2010-2014.

REVIEW OF LITERATURE

Khaparde V S (2013) her paper conducted the Bibliometric Analysis of Research Publication of Department of Chemistry, Dr. Babasaheb Ambedkar Marathwada University, from 1975 to 2012. 774 research publications were analysed from 144 journals. The study examines year-wise distribution of papers, authorship pattern, journal in which author published.

Madhu Bala, Mahender Pratap Singh (2014)

Analyzed 316 scholarly communications published in the Indian Journal of Biochemistry & Bio-Physics. The analysis cover mainly the number of articles, form of document cited, most cited Journals etc. Study reveals that single author contributed 18 (5.7%) while the rest of 162 (51.3%) articles were contributed by Multi authors. The contributions in this Journal from India are slightly more than those from the other countries.

A scientometrics analysis of 829 articles published in "Indian Journal of Physics" has also been done by Nattar, S during by the year 2004 to 2008. In his study he showed that highest numbers of papers were written by co-authors and contributions of paper in this journal from India is slightly more than from other foreign countries.

SOURCE JOURNAL

Collection building has been selected as the source journal for the present study.

OBJECTIVES OF THE STUDY

The main objectives of the present study are:

- To examine the distribution of the contrition Volume wise.
- To find out authorship pattern of contributions.
- To find out authorship pattern of contributions Volume wise.

- To find out Degree of collaboration year wise.
- To find out the contribution Institution wise.
- To find out the Geographical distribution of contributors of articles.
- To find out the types of publication cited volume wise.
- To find out the average citation per contribution in each volume.
- To find out the average pages per volume & per contribution.

SCOPE & LIMITATON

The present study is based on 5 volumes, 20 issues of Collection Building during 2010-2014. The present study is based on over all 1665 citations appended to 105 articles.

DATA ANALYSIS

Table No. 1 Distribution of contributions (Volume-wise)

Year	Volume No.	No. Of Issue	No. Of Contributions	Percentage
2010	29	4	23	18.71
2011	30	4	22	19.35
2012	31	4	22	20.00
2013	32	4	20	20.65
2014	33	4	18	21.29
Total	155	20	105	100.0

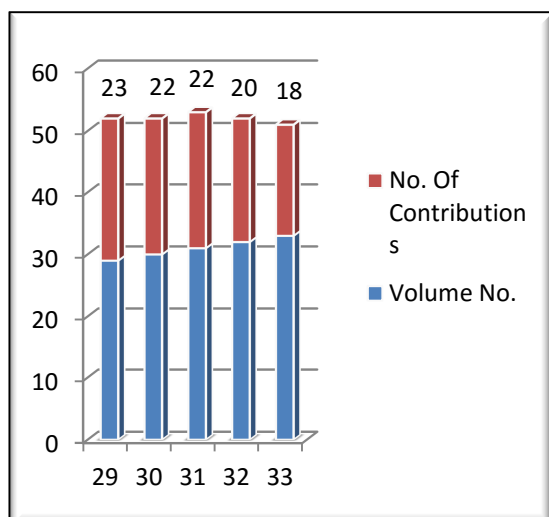


Figure No. 1 Distribution of contributions (Volume-wise)

Table No.1 and figure No. 1 shows the Distribution of contributions (Volume- wise). out of the total 105 contributions majority of the contributions i.e. 23 contributions were contributed in 2010 were as minimum contributions i.e. 18 contributions were contributed in 2014.

Table No. 2 Authorship pattern of contributions

No. of Author	No. of contribution	No. of Authorship	Percentage
Single author	63	63	40.38
Two author	31	62	39.74
Three author	10	30	19.23
More than three author	1	1	0.64
Total	105	156	100.00

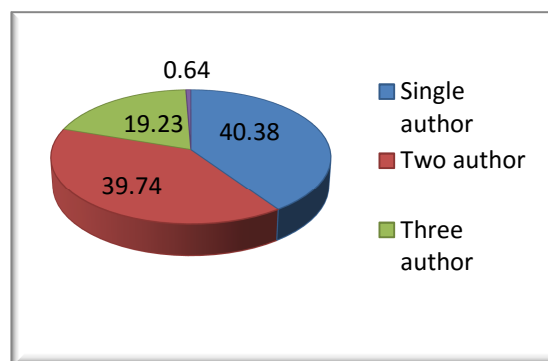


Figure No. 2 Authorship pattern of contributions

The distribution of Authorship pattern is given in the Table No.2. The table shows the single authorship is predominant then multi authors. Table No. 2 & Figure no. 2 indicatives the majority of the contributions are contributed by single author.

Table No. 3 Authorship pattern of contribution (Volume- wise)

Volume No.	Single Author	Two Author	Three Author	More than three author	Total Article
29	17	5	1	0	23
30	11	2	2	1	22
31	11	3	3	0	22
32	11	2	2	0	20
33	13	2	2	0	18
Total	63	14	10	1	105

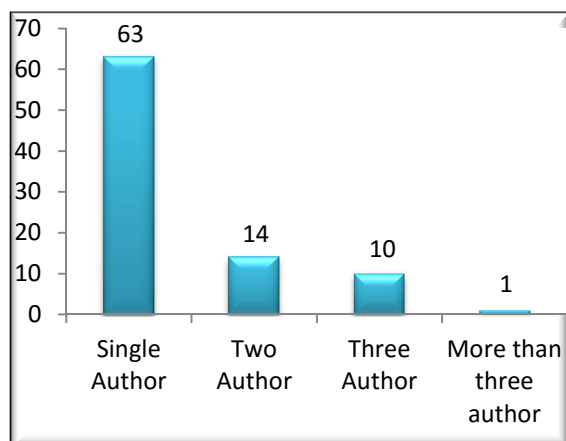


Figure no. 3 Authorship pattern of contributions

Table No. 3 shows the authorship pattern of contributions (Volume- wise). Distributions of contribution by a single author in volume no. 29 indicate that the maximum percentage is of single authors. Two author's contributions in volume no. 29 show the highest percentage. Table No. 3 & figure no. 3 indicates the majority of the contributions are contributed by single author.

Degree of collaboration in the international journal of "Collection Building"
the formula given by k. Subramanyam is useful for determining the collaboration in quantitative terms. The study followed the same formula which is mathematically put as;

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

Where,

C= Degree of collaboration

NM= Number of multi authored papers

NS= Number of single authored papers

In the present study

NM=25

NS= 63

$$= \frac{25}{25 + 63} = \frac{25}{88} = 0.28$$

Those, C= 0.28

Thus the degree of collaboration if the international journal of "Collection building" is 0.28 which clearly indicates its dominance upon individual contribution.

Table No. 4 Degree of collaboration.

Year	Total no. of article	Total no. of author	No. of single authored articles	% of article	No. Of multi authored articles	% of articles	Degree of collaboration
2010	23	23	17	26.98	6	24	0.26
2011	22	22	11	17.46	5	20	0.31
2012	22	22	11	17.46	6	24	0.35
2013	20	20	11	17.46	4	16	0.26
2014	18	18	13	20.63	4	16	0.23
Total	105	105	63	100	25	100	0.28

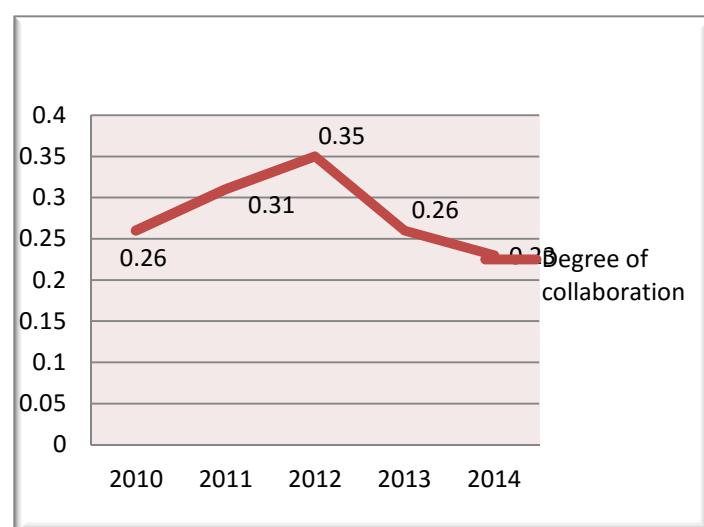


Figure no. 4 Year wise Degree of Collaboration

Table No. 5 Shows the Contributions (Institution wise).

Volume No.	Year	University	Institution	College	Not mentioned	Total
29	2010	25	1	3	1	30
30	2011	24	7	0	2	33
31	2012	28	2	2	4	36
32	2013	28	2	0	1	31
33	2014	21	2	3	0	26
	Total	126	14	8	8	156

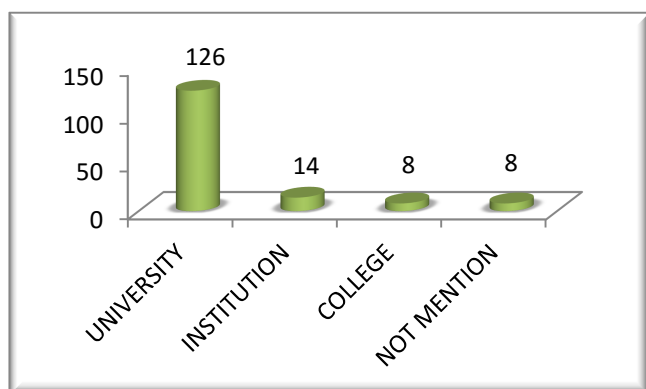
**Figure no. 5 Contributions (Institution wise)**

Table No. 5 shows distribution of institutions volume wise contributions. University wise at the national level followed by colleges. It was seen that university wise contribution in maximum (126) than institution wise (14) and (8) contributions were contributed by the colleges. Table No. 5 shows that the highest number of contributions are of university level.

Table No. 6 Geographical Distribution of contributions at international level

Sr. No.	Name of Country	No. of Contribution	Percent age
1	USA	102	65.38
2	India	16	10.26
3	Finland	1	0.64
4	Canada	12	7.69
5	Iran	1	0.64
6	Nigeria	3	1.92
7	Belgium	1	0.64
8	Africa	5	3.21
9	West Indies	3	1.92
10	Australia	4	2.56
11	Croatia	1	0.64
12	Kenya	2	1.28
13	Poland	1	0.64
14	Saudi arabia	2	1.28
15	greece	1	0.64
16	Spain	1	0.64
	Total	156	100

Table No. 6 shows the Geographical distribution of contributions at international level. Table No. 6 indicates that the majority of the contributions were contributed by USA (65.38) were as the minimum contributions were contributed by (0.64) respectively.

**Table No. 7 Types of publication cited
(Volume wise)**

Volume No.	Year	Books	Journals	Others
29	2010	35	138	136
30	2011	25	130	83
31	2012	23	153	104
32	2013	62	191	130
33	2014	130	170	155
	Total	275	782	608

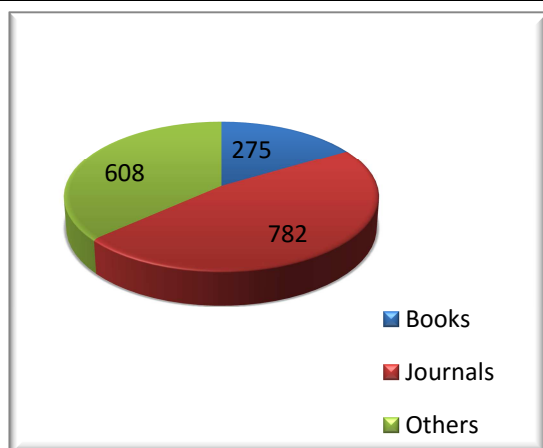
**Figure no. 7 Types of publication cited
(Volume wise)**

Table No. 7 shows the types of publication cited volume wise. Total 105 contributions majority of the citations are the Journal citations (782) and minimum are book citations.(275) and (608) other citations.

**Table No. 8 Average citation per contribution
in each volume**

Volume No.	No. of Contribution	No. of Citation	Percentage
29	23	309	18.56
30	22	238	14.29
31	22	280	16.82
32	20	383	23.00
33	18	455	27.33
Total	155	1665	100

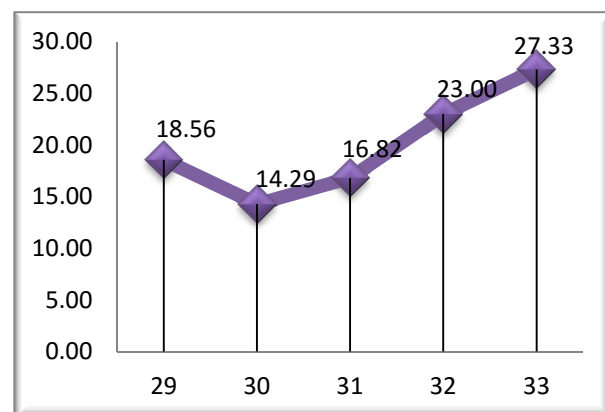
**Figure No. 8 Average citation per
contribution in each volume**

Table No. 8 shows the average citation per contribution in each volume, total 105 contributions were contributed. Maximum numbers of citations were contributed by volume no. 33 (27.33) and the minimum (14.29) contributions were contributed by volume no. 30.

**Table No. 9 Average pages (per volume
& per contributions)**

Volume No.	Total Pages	No. Of Article	Percentage
29	161	23	20.23
30	183	22	22.99
31	165	22	20.73
32	153	20	19.22
33	134	18	16.83
Total	796	105	100.00

The Table No. 9 shows the average pages (per volume & per contributions). The maximum pages were covered in volume no. 30 (22.99) & minimum pages were covered in volume no. 33 (16.83).

FINDINGS

The findings are based on the analysis of collected data appended in 105 articles and 1665 references in journal Collection building.

- Volume Number 29 (2010) has maximum articles contributed.
- Majority of the contributions are contributed by single author.
- The degree of collaboration in Collection Building is 0.28
- Among the contributions, the maximum number of contributors is from the Universities
- All the contributions are with citations. It is observed that the journals are more cited documents.

CONCLUSION

Scientometrics analysis is the major techniques of Bibliometrics which is used in the further study. Considering published literature present study has used quantitative method. Scientometric is relatively new subject of information. It helps to evaluate information & to handle the information in libraries and information centers by the quantitative analyzed information. It deals with the mathematical and statistical analysis. This is an umbrella term used for many studies where quantitative method or techniques are used to investigate various aspect of written document.

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