

A Bibliometric Study of Botany Journals Represented in the Directory of Open Access Journals

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Abstract - This paper presents a Bibliometrics study of Botany journals represented in the Directory of Open Access Journals (DOAJ). A total of 75 Botany journals were identified from DOAJ, This study used the bibliometric technique for analyzed various parameter like year wise distribution, Subject wise, country-wise and language-wise distribution of Botany journals archived in Directory of Open Access Journals (DOAJ).

Keywords: DOAJ, Bibliometrics Study, Open Access, Online Journals, Botany

I. INTRODUCTION

Bibliometrics analysis is an emerging thrust research area of Library and Information Science field. It is a quantitative method for examining a various aspect of data and very standard method among the research scholar for their research field because in every field of knowledge the research scholar is interested in doing research area and find out the utility of their contribution through citations. It is playing a key role in their research work because it contains the latest information about current developments in any field of knowledge. This study is an assist for students, research scholar, and faculty for knowing available journal in DOAJ.

Open Access literature is free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, basically calls for scholarly publications to be made freely available to libraries and end users. Open access journal can relieve cost pressures on libraries. Open access journal can reduce the cost structure of the entire scholarly publishing enterprise.

A. Directory of Open Access Journals (DOAJ)

DOAJ is an online directory that indexes and provides access to high quality, open access, peer-reviewed journals. The Directory of Open Access Journals, which is maintained by Lund University Libraries, is the most important directory of open access journals. Open Access research journals, periodicals, and their articles' metadata. The Directory aims to be comprehensive and cover all open access academic journals that use an appropriate quality control system and is not limited to particular languages or

subject areas. The Directory aims to increase the visibility and ease of use of open access academic journals regardless of size and country of origin thereby promoting their visibility, usage, and impact.

II. REVIEW OF LITERATURE

Savitha, (2017) determined the number of free e-journal in the field of Microbiology available on DOAJ. For this study the author as adopted bibliometric method and analyzed on the basis of country-wise distribution, language-wise distribution and subject heading wise distribution.

Nagaraj and Bhandi, (2016) mainly studied the usage and awareness of Physics researchers on Open Access Journals in Raman Research Institute. They used a survey method using the structured questionnaire as a tool. The study revealed that the majority of users are satisfied with the available Open access resources.

Neera Bansal, (2014) studied 44 Music journals were accessed through DOAJ. All music journals are analyzed on the basis of their originating country, language and year of publication.

Nisha and Ahmad, (2014) studied the trends of open access chemistry journals appeared in the Directory of Open Access Journals (DOAJ) and analysis was carried out on the basis of subject coverage, decade and year, country of origin, publisher, language, format and Indian contribution to OA journals

Pujar, (2014) made a study on Library and information science journals covered in Directory of open access journals and he analyzed the present status of open access journals is based on various parameters like country wise distributions, the language of publication and currency of open access publication etc.

Hulagabali, (2012) made a study on library and information science journals archived in DOAJ and he year-wise, country-wise and language-wise distribution of LIS journals archived in Directory of Open Access Journals (DOAJ) using bibliometric techniques.

III. OBJECTIVES OF THIS STUDY

Objectives of the study as follows

1. To find out number of free e-journals offered by DOAJ on Botany.
2. To Identify the year wise growth of open access journals in Botany
3. To Identify the Subject wise distribution of Botany on DOAJ
4. To trace the country-wise distribution of Botany journals.
5. To find out the language wise distribution of e-journals.
6. To Identify the Language pattern
7. To examine the mode of open access journals

IV. NEED OF THE STUDY

Know the growing trends of open access journals/archives in the field of Botany. Its given new dimensions and understanding about open access journals in Botany. However, the present study aims to highlight aspects which are related to the source of publication and their language. It is evident to understand as which are the countries who are publishing Botany journals with open accessibility. Thus, to trace this trend, the popular open access database i.e. DOAJ is selected. The present study may further encourage the

researchers to understand the country wise and language wise distribution of Botany Open access journals.

V. HYPOTHESES

The following hypotheses were formulated for the present study.

1. Most of Botany Journals published in the English language.
2. Single language publication is more comparing to multiple languages.
3. All the Botany journals are published in the developed country.

VI. METHODOLOGY

Bibliometric method is going to use for the present study, Directory of open access journals is browsed for the present study. A total of 75 Botany journals were analyzed. The data was entered in MS Excel and analyzed according to the objectives of the study.

VII. DATA ANALYSIS AND INTERPRETATION

A total of 75 Botany open access journals were analyzed based on the objectives of the study. The following tables are presented below.

TABLE I YEAR-WISE DISTRIBUTION OF DOAJ JOURNALS IN BOTANY

S. No.	Year	No. of Journals	%	Cumulative Journals	Cumulative Percentage
1	2003	2	2.67	2	2.67
2	2004	4	5.33	6	8
3	2005	1	1.33	7	9.33
4	2006	2	2.67	9	12
5	2007	1	1.33	10	13.33
6	2008	5	6.67	15	20
7	2009	3	4	18	24
8	2010	4	5.33	22	29.33
9	2011	3	4	25	33.33
10	2012	5	6.67	30	40
11	2013	7	9.33	37	49.33
12	2014	1	1.33	38	50.67
13	2015	9	12	47	62.67
14	2016	12	16	59	78.67
15	2017	11	14.67	70	93.34
16	2018	5	6.67	75	100
Total		75	100		

Table I stated the year wise Growth of open access journal. From this table the highest number 12(16%) journals were identified in the year 2016. Followed by in 2017 there are

11(14.67%). Next to this in 2015 there are 9(12%) were identified and only one Journal is added in the year 2005 and 2014

TABLE II LANGUAGE WISE DISTRIBUTION OF JOURNALS ON DOAJ

S. No.	Language	No. of Journals	Percentage	Cumulative No. of Journal	Cumulative Percentage
1	English	72	54.54	72	54.54
2	French	4	3.03	76	57.57
3	Portuguese	11	8.33	87	65.90
4	Turkey	1	0.75	88	66.66
3	German	1	0.75	89	67.42
4	Indonesia	2	1.51	91	68.93
5	Castillian	18	13.63	109	82.57
6	Valencian	1	0.75	110	83.33
7	Valencian	1	0.75	111	84.09
8	Spanish	16	12.12	127	96.21
9	Russian	3	2.27	130	98.48
10	Ukrainian	1	0.75	131	99.24
11	Slovenian	1	0.75	132	100

Table II reveals that the English language with 72(54.54%) journals is the most popular language of in Botany field that has appeared in DOAJ. Followed by Castilian Language with 18(12.03.63%), Spanish language with 16 journals

constituting 12.12% and Portuguese language with 11 journals constituting (8.33%) of the total major languages in Open access journals in Botany.

TABLE III LANGUAGE PATTERN OF PUBLICATION OF JOURNALS

S. No.	Language Pattern	No. of Journals	%	Cumulative Journals	Cumulative Percentage
1	One language	46	61.33	46	61.33
2	Two language	13	17.33	59	78.66
3	Three language	9	12	68	90.66
4	More than three language	7	9.33	75	100
		75	100		

Table III shows that Language wise pattern of publication of journals, Single language publication is in first place with 46(61.33%) followed by 13(17.33%) in two languages,

9(12%) in three languages and 7 journals are published more than 3 languages.

TABLE IV COUNTRY WISE DISTRIBUTIONS OF E-JOURNALS ON BOTANY

S. No.	Name of the Country	No of Journal	Percentage
1	Argentina	3	4
2	Bangladesh	1	1.33
3	Brazil	11	14.67
4	Bulgaria	3	4
5	China	1	1.33
6	Colombia	1	1.33
7	Costa Rica	1	1.33
8	Cuba	1	1.33
9	France	4	5.33
10	Germany	4	5.33
11	India	2	2.67
12	Indonesia	3	4
13	Iran	1	1.33

14	Italy	4	5.33
15	Korea	1	1.33
16	Mexico	2	2.67
17	Morocco	1	1.33
18	Netherland	1	1.33
19	Peru	1	1.33
20	Poland	5	6.67
21	Romania	2	2.67
22	Russian Federation	2	2.67
23	Slovenia	1	1.33
24	Spain	5	6.66
25	Sweden	1	1.33
26	Switzerland	1	1.33
27	Thailand	1	1.33
28	Turkey	1	1.33
29	Ukraine	2	2.67
30	United Kingdom	7	9.33
31.	USA	1	1.3
Total		75	100

Table IV represents that Country-wise distribution of Journals, the result of this table shows that Brazil publications contributed the highest number of Open Access Journals, i.e. 11 (14.67%) by occupying 1st Rank, followed by United Kingdom publications with 7 (9.33%) and Poland and Spain publications with 5 (6.67%) citations and two journals are contributed by India.

TABLE V SUBJECT WISE DISTRIBUTION OF JOURNALS

S. No.	Subject	Rank	No. of journals	Percentage
1	Botany	1	20	0.27
2	Biology	2	15	0.20
3	Zoology	3	12	0.17
4	Science	4	8	0.11
5	Plant Culture	5	6	0.09
6	Agriculture	6	4	0.06
7	Physiology	7	1	0.01
8	Pharmacy and material media	7	1	0.01
9	Paleontology	7	1	0.01
10	Others system of medicine	7	1	0.01
11	Organic Chemistry	7	1	0.01
12	Microbiology	7	1	0.01
13	Forestry	7	1	0.01
14	Ecology	7	1	0.01
15	Chemistry	7	1	0.01
16	Biotechnology	7	1	0.01
	Total		75	

Table V shows that subject wise distribution of journal in DOAJ, out of 75 journals 20(0.27%) journals published in Botany. Biology having a 2nd place with 15 (0.20%) journal publication, followed by 12 (0.17%) journals in zoology respectively.

TABLE VI MODE OF JOURNALS

S. No.	Mode	No of journal	Percentage
1	Print version	9	12%
2	Online version	23	30.67%
3	Print and Online version	43	57.33%
		108	100

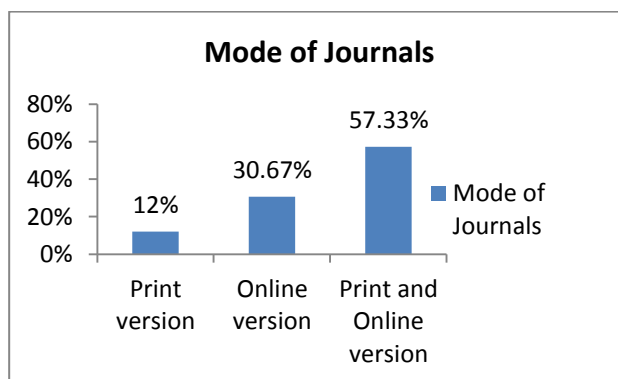


Fig. 1 Mode of Journals

Table VI and Figure 1 Shows the mode of journals in DOAJ, out of 75 journals, 43(57.33) journals were published in both print and Online version, followed by only 23(30.67%) journals were published in purely online and also some journals 9(12%) published in Print version.

TABLE VII ARTICLE PROCESSING CHARGES

APC Charges for Journals	No. of Journals	Percentage
Yes	29	40
No.	46	60
Total	100	100

Table VII reveals the Article Processing Charges applied by the publishers to the author. It shows that majority of the publishers are publishing at free of cost I.e. 60% and remaining 29 journals are cost-based publishing.

VIII. FINDINGS

The following findings can be drawn from the present study.

1. It is observed in table I that the highest number 12(16%) journals were identified in the year 2016 and only one Journal is added in the year 2005 and 2014.
2. It was observed in table 2 English language is the most popular language with 72(54.54%) journals in Botany
3. It is observed in table III, that single language publication is in first place with 46 (61.33%) then two and three language publications.
4. It is observed in table IV that the highest numbers of publication in Brazil occupying 1st place, Indian contribution are very less.
5. It is observed in table 5 that most of the journals are published in botany, biology and zoology subject.

IX. CONCLUSION

DOAJ provide open access journal for everyone. The present study analyzed Botany journals available in DOAJ. A total of 75 journals were analyzed by using citation analysis techniques. The English language occupies first

place and Brazil published highest number of Journals when compared to India.

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