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**A BIBLIOMETRIC SURVEY OF THE LITERATURE PUBLISHED BY  
WEB OF SCIENCE ON 'CONSORTIA' FROM 1989-2016**

**Dr. Vilas A. Kale**

Librarian

Swatantrya Sainik Suryabhanji

Pawar College, Purna (Jn.)

Dist. Parbhani (MS).

**Dr. Rahul K. Deshmukh**

Assistant Librarian

Rajiv Gandhi College of Food

Technology, Parbhani (MS).

**Mr. Gajanan P. Khiste**

Information Scientist

Dr. Babasaheb Ambedkar

Marathwada University, Aurangabad (MS).

**Abstract :** Consortium is becoming a prime way for online resource sharing & Thomson Reuters Web of Science is a premier research platform, helping to find, analyze, and share information in the sciences, social sciences, arts, and humanities. Therefore, the present study discusses the "Consortia" as reflected in Web of Science for the period from 1989–2016. This study investigates the highly productive authors, Document Type wise, Country wise, Language wise, Publication year wise, Research area wise, Source Title or Journal wise.

**Introduction**

Information Communication Technology has become an integral part of all aspects of the library. Well & proper implementation of ICT in library results into better resource sharing. With the changing dimensions of library resources the modes of resource sharing has been also changes. E-resources playing a vital role in online resource sharing E-journal is one of the most important type of e-resource. In this digital age, that trend today is forming library consortium for sharing of electronic resources. Today e-ShodhSindhu, INDEST, AICTE, FORSA are some of the important consortia in India. Therefore considering the importance of Consortia the study is taken for research purpose.

**Consortia**

Consortia could be described as group of organization who come together to fulfill a combined objective i.e. usually requires cooperation and the sharing of resources. The word consortia are originated from the Latin in early 19<sup>th</sup> century in the sense of partnership.

**Web of Science**

Web of Science, provides access to the world's leading citation databases. It searches over 10,000 journals from over 45 different languages across the sciences, social sciences, and arts and humanities with back files to 1900. The citations (or footnotes) allow one to navigate forward, backward, and through journal articles and both journal and book-based proceedings. Its Analyze Tool also helps in finding hidden trends and patterns, gain insight into emerging fields of research, identify leading researchers, institutions, and journals, and trace the history of a particular field of study. The access to Web of Science is available on perpetual access basis to members subscribing prior to 2016, and new members were provided access to 20 year back-files on lease basis.

**Objectives of the Study**

The main objective of the present study is to identify the analysis of publication of consortia as reflected in web of science. Other objectives of the study are to examine the:

- Highly productive authors
- Highly preferred journals by scientists
- Year wise documents publications
- Country wise documents publication
- Document type wise publication
- Language wise publication
- Highly Productive Institutions by publications
- Research Area wise highest publications

### Scope & Limitation of Study

This Study is limited to search results on the Title of 'Consortia' in Web of Science database during 1989 to 2016. Document types and number of documents in the title 'Consortia' term used.

### Methods and Materials

The growth of publications in the 'Consortia' was derived from the Web of Science Electronic Database published by Thomson Reuters Web of Science for the period from 1989–2016. During the period, a total of 1062 records were found for the keyword 'Consortia'. Necessary data was tabulated into separate sheets in terms of authorship pattern, geographical distribution of contributors, ranking list of journals and collaborative measures.

### Review of Related Literature

Baskaran C. and Sivakami N. (2014) Quantitative analysis is carried out to identify the literature growth, authorship pattern, collaboration and journal distribution on Swine influenza disease research based on data obtained from Pubmed databases for a period from 2006–2010. A total of 2360 articles were downloaded from Pubmed database using the search term "Swine\*" subjected to bibliometric data analysis techniques.

Gawli Datta, Khiste Gajanan, Maske D.B.(2017) explained information about consortia, need of consortia, objectives of consortia movement of consortia based approach, consortia projects in university agriculture libraries.

Khiste G.P.& Paithankar R.R.(2017) discusses the "Bibliometric" as reflected in Web of Science for the period from 1989–2016. This study investigates the highly productive authors, Document Type wise, Country wise, Language wise, Publication year wise, Research area wise, Source Title or Journal wise. Documents by Language wise.

Khiste G.P.& Paithankar R.R. (2017) explained "Bibliometric" as reflected in SCOPUS for the period from 2008–2016. This study investigates the highly productive authors, Document Type, Geographical distribution by country.

Kumar Amit (2017) explores the growth and development of the periodical literature published by Emerald on the concept 'Library Consortia' and to provide the bibliography for ready reference on the subject from the study. Bibliographic data obtained from the Emerald database ([www.emeraldinsight.com](http://www.emeraldinsight.com)) using keywords like 'Library Consortia', 'Library Consortium', 'Consortia' and 'Consortium' etc. and recorded in MS-Excel-2010 sheet for analysis and interpretation purpose. The study finds 107 different categories of items have been published by Emerald during 1990 to 2016 in the respective discipline and 1999 and 2003 with 18.18% and 8.41 respectively were the most productive years in context of the total no. of literature (articles/research papers) published. Furthermore, it was found that Emerald has published more research papers in compare to the other categories of literature.

Rahul K. Deshmukh & Pratibha Taksande (2015) A Study of correlation between college Librarian and his research productivity .

Veer D.K., Kadam Santosh & Kale, R.D. (2009) explain considering the increasing e-importance of e-consortia in the digital era. Present paper highlights on the meaning & objectives of consortium with its benefits. The paper also points out the growth of consortium in India.

### Chronological Analysis:

The author has analysed the data related to 'Consortia' based literature chronologically during 1989 to 2016 and presented in the Table 1.

**Table No.1**  
**Year wise documents published on ‘Consortia’**

Sr. No.	Year	Documents	Percentage
1	2016	120	11.30%
2	2015	94	8.85%
3	2014	88	8.29%
4	2013	71	6.69%
5	2012	62	5.84%
6	2011	55	5.18%
7	2010	76	7.16%
8	2009	46	4.33%
9	2008	41	3.86%
10	2007	37	3.48%
11	2006	25	2.35%
12	2005	30	2.83%
13	2004	26	2.45%
14	2003	30	2.83%
15	2002	29	2.73%
16	2001	25	2.35%
17	2000	26	2.45%
18	1999	18	1.70%
19	1998	20	1.88%
20	1997	23	2.17%
21	1996	23	2.17%
22	1995	22	2.07%
23	1994	16	1.51%
24	1993	17	1.60%
25	1992	10	0.94%
26	1991	10	0.94%
27	1990	13	1.22%
28	1989	9	0.85%
	<b>Total</b>	<b>1062</b>	<b>100</b>

Table No.1 shows that year-wise distribution of Documents. The highest number of documents were published in the year 2016 i.e., 120 (11.30 %) followed by 94 (8.85%) documents were published in the year 2015 & lowest number of documents i.e. 9 (0.85%) were published in the year 1989.

**Productive Authors:**

The author has analysed the data related to productive authors and it is presented in the Table 2.

**Table No.2**

**Top 5 Authors which wrote highest documents on the topic ‘Consortia’**

Sr. No.	Author	Documents	Rank
1	Anonymous	19	1
2	Oza AM	19	1
3	Fleming GF	14	2
4	Wang L	12	3
5	Mohan SV	11	4
6	Jimenez DJ	8	5
7	Mackay H	8	5
8	Orphan VJ	8	5
9	Sarma PN	8	5
10	Van Elsas JD	8	5

Table 2 shows that highly top five productive authors. It is observed that Anonymous & Oza AM ranks first who has contributed maximum number of 19 documents and on 5<sup>th</sup> Rank 8 documents published by Jimenez DJ, Mackay H., Orphan VJ, Sarma PN & Van Elsas JD.

**Geographical Distribution:**

The data related to Consortia has been analysed by top Ten countries and presented it in the table 3.

**Table No.3**

**Consortia Literature: Country wise Analysis**

Sr. No	Country	Documents
1	USA	378
2	India	87
3	Germany	76
4	Canada	69
5	England	66
6	Peoples R China	64
7	Spain	49
8	Japan	46
9	France	45
10	Netherlands	38

Table 3 depicts the geographical distribution of documents by country wise. USA tops the list with 378 documents, followed by India with 87 documents to its credit & Netherlands contribution to Consortia is 38 documents during 1989–2016 which is ranked on Tenth positions.

**Document Type wise:**

**Table No.4**

**Document types and number of documents Published on Consortia**

Sr. No.	Document Type	No. of Documents	Percentage
1	Article	830	78.15%
2	Meeting Abstract	89	8.38%
3	Editorial Material	57	5.37%
4	Proceedings Paper	44	4.14%
5	Review	39	3.67%
6	News Item	19	1.79%
7	Book Review	11	1.04%
8	Correction	8	0.75%
9	Letter	8	0.75%
10	Book Chapter	1	0.09%
11	Note	1	0.09%
		<b>1107</b>	<b>100</b>

Table No.4 shows that the maximum number of documents published under the category of article is 830 (78.15%), whereas 89 (8.38%) under the category Meeting Abstract. There are 57 (5.37%) Editorial Material and the Proceedings Paper are 44 (4.14%). A small number of contributions are categorized under Book Chapter & Note are respectively.

**Language wise Analysis:**

There are hundreds of languages are there in the world, the data are analysed by language to know the languages in which highest documents contributed in Web of Science on Consortia. The related information indicates by Table 5.

**Table No.5**

**Documents on Consortia: Language wise Analysis**

Sr. No	Language wise	Documents	Percentage
1	English	1045	98.40%
2	Spanish	8	0.75%
3	Portuguese	4	0.38%
4	German	3	0.28%
5	French	1	0.09%
6	Italian	1	0.09%

The Table 5 indicates that English is the most preferred language for publication of 1045 (98.40%) documents on Consortia followed by in Spanish publishing 8 documents.

**Subject wise Analysis:**

The author has analysed the compiled data by top 10 subjects and presented it in the TableNo.6.

**Table No.6**  
**Analysis of Consortia by Subject wise**

Sr. No.	Subject	No. of Documents
1	Biotechnology Applied Microbiology	248
2	Environmental Sciences Ecology	184
3	Microbiology	162
4	Engineering	138
5	Information Science Library Science	75
6	Energy Fuels	71
7	Business Economics	63
8	Chemistry	62
9	Science Technology Other Topics	56
10	Agriculture	55

Table No. 6 presents the subject-wise categorization of the documents retrieved. Subject-wise analysis indicates that maximum number of contributions was in the area of Biotechnology Applied Microbiology i.e. 248 followed by Environmental Sciences Ecology with 184 documents & Agriculture is on Tenth rank with 55 documents.

**Sources of Ranking:**

The sources are nothing but in which documents the highest number of documents has been published on the term “Consortia”. The related information is being presented in the Table 7.

**Table No. 7**

**Highest Ranking Sources in which highest number of documents published on Consortia**

Sr. No	Sources	Documents	Rank
1	Applied and Environmental Microbiology	35	1
2	Bioresource Technology	27	2
3	Applied Microbiology and Biotechnology	24	3
4	International Journal of Hydrogen Energy	22	4
5	Water Science and Technology	17	5
6	Environmental Microbiology	15	6
7	Water Research	15	6
8	Abstracts of Papers of the American Chemical Society	14	7
9	International Biodeterioration Biodegradation	14	7
10	Microbial Ecology	13	8

As per Table No.7 Applied and Environmental Microbiology ranks first with 35 documents to its credit, followed by Bioresource Technology ranking on second with 27 documents & Microbial Ecology is on Eighth rank with 13 documents.

### Access Type

Among total 1062 documents retrieved on Consortia in web of science database. The access type of documents is described in Table No.8

**Table No.8 Document Access Type**

Sr. No.	Access Type	Documents	Percentage
1	Subscription base access	982	92.47%
2	Open access	80	7.53%
	<b>Total=</b>	<b>1062</b>	<b>100</b>

Table No.8 indicates that 982 (92.47%) documents are subscription base access & 80 (7.53%) documents are open access only.

### Collaborative Platform:

Author wants to know how many documents were published on the title “Consortia” and their affiliating institutions. The data is analysed accordingly and presented in the Table 9.

**Table No.9**

#### Affiliation wise Distribution of Documents

Sr. No.	Institution	Documents
1	Univ Calif Berkeley	26
2	NCI	25
3	Univ N Carolina	22
4	Univ Chicago	20
5	Harvard Univ	18
6	Princess Margaret Hosp	16
7	Univ Washington	16
8	Chinese Acad Sci	15
9	Univ Toronto	15
10	Univ So Calif	14

Table No. 9 presents the list of top ten Affiliation contributions on the Consortia. The institution affiliation from the address field is taken as the data for this categorization. Univ Calif Berkeley contributed 26 documents which is the highest while NCI has 25 documents to its credit. Univ So Calif is contributed 14 documents.

### Findings & Conclusion

- The Total 1062 documents published during 1989 to 2016 on ‘consortia’ by title in web of science database.
- The highest number of documents were published in the year 2016 i.e., 120 (11.30 %) & lowest number of documents i.e. 9 (0.85%) were published in the year 1989.
- Geographical distribution of documents by country wise. USA tops the list with 378 documents & Netherlands contribution to Consortia is 5 documents during 1989–2016 which is ranked on Tenth positions

- Maximum number of documents published under the category of article is 830 (78.15%), whereas 89 (8.38%) under the category Meeting Abstract. There are 57 (5.37%) Editorial Material and the Proceedings Paper are 44 (4.14%). A small number of contributions are categorized under Book Chapter & Note are respectively.
- English is the most preferred language for publication of 1045 (98.40%) documents on Consortia followed by in Spanish publishing 8 documents.
- Maximum number of contributions was in the area of Biotechnology Applied Microbiology i.e. 248 & Agriculture is on Tenth rank with 55 documents.

The data suggest that there was a significant research activity in the field of consortia during the study period. The contribution of authors indicates a healthy pattern of progress in this field.

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