

ANALYSIS OF BIBLIOMETRIC TERM IN SCOPUS

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ABSTRACT

At present Bibliometric Study is a dynamic area of research in which majority of research work is being done. Scopus is a premier research platform, helping to find, analyze, and share information in the sciences, social sciences, arts, and humanities. The present study discusses the "Bibliometric" as reflected in SCOPUS for the period from 2008–2016. This study investigates the highly productive authors, Document Type, Geographical distribution by country.

Keywords: Bibliometric, SCOPUS.

1. INTRODUCTION

Bibliometrics is a truly interdisciplinary research field; bibliometric comprises mathematics, social sciences. Initially, bibliometric study was a simple statistical method of counting to evaluate and quantify the growth of a subject. Bibliometric techniques are now being used for a variety of purpose like determination of various scientific indicators, evaluation of scientific output, selection of journals for the libraries, forecasting the research potential of a particular field and so on. Bibliometrics

has become a standard tool of science policy and research management in the past decades. Many extensive bibliometric studies of important science fields have appeared during the last two decades. The aims of these studies were to measure national research performance in the international contexts or to describe the development of a science field with the help of bibliometrics. Therefore considering the importance of Bibliometric the study is taken for research purpose.

2. BIBLIOMETRIC

The word 'bibliometric' has been derived from the Latin and Greek words 'biblio' and 'metrics' respectively which refer to the application of mathematics to the study of bibliography. The word "bibliometrics" constitutes one of the major thrust areas of research in the field of library and information science. It utilizes quantitative analysis and statistics to describe patterns of publications within a

given field or body of literature. The term statistical bibliography was first employed by E.W. Hulme in 1923, to refer to the application of quantitative techniques to libraries. The word bibliometrics appeared in print in 1969 in Alan Pitchard's article statistical bibliography or bibliometrics in the December issue of the Journal of Documentation.

3. SCOPUS

Scopus launched in November 2004. It is the largest abstract and citation database of peer-reviewed literature, featuring smart

tools to track, analyze and visualize research. With over 21,500 titles from more than 5,000 international publishers, Scopus

delivers the most comprehensive overview of the world's research output in the fields

of science, technology, medicine, social science and arts and humanities.

4. PURPOSE OF STUDY

To analysis of Bibliometric term in SCOPUS database in various angel by Author wise, Document Type wise, Country wise, Publication year wise , Research area wise , Source wise.

- i. To Study the Document types and number of documents in which bibliometric term used.
- ii. To find out highly productive authors on bibliometric term.
- iii. To Know Document Type geographical distribution by country on Bibliometric term.
- iv. To Identify Publication year wise documents published in Scopus on Bibliometric.
- v. To get information Writing of Research areas.
- vi. To know highly preferred journals by the Scientists for writing research papers on Bibliometric term.

5. SCOPE & LIMITATION OF STUDY

This Study is limited to search results on the term of 'Bibliometric ' in SCOPUS database during 2008 to 2016.

Document types and number of documents in which bibliometric term used

6. METHODS AND MATERIALS

The growth of publications in the Bibliometric research was derived from the SCOPUS published by Elsevier. During the period 2008–2016, a total of 5439 records were found for the keyword 'Bibliometric'.

Necessary data was tabulated into separate sheets in terms of authorship pattern, geographical distribution of contributors, ranking list of Sources and collaborative measures.

7. REVIEW OF RELATED LITERATURE

Ani, O. E., Ngulube, P., & Onyancha, O. B. (2017) discussed in paper used bibliometrics to examine patterns of publication output in library and information science (LIS) research in Nigerian universities from 2000 to 2014 in terms of the trend in publication output in LIS research, the most visible (productive) universities and authors, the most cited universities and authors, and publication sources. The Web of Science was used as the source of the data. The findings of the study revealed a fluctuating and

unpredictable trend in the annual publication output in LIS research in Nigeria. The University of Ibadan, University of Nigeria, and Delta State University were found to be the three most visible (productive) universities in LIS research. Based on the findings of this study, it is recommended that there should be increased investment in LIS research by Nigerian universities towards a steady increase in sustained quality publication output to support national development.

Aswathy S. and Gopikuttan A. (2014) at present spacecraft propulsion is a dynamic area of research in which majority of research work is being done. Thomson

Reuters Web of Knowledge is a premier research platform, helping to find, analyze, and share information in the sciences, social sciences, arts, and humanities. The data for

the present analysis has been retrieved for a period of 14 years during 1999 to 2012 from this database. This study aims to analyze the Indian contribution in the subject area. The study also analyses year-wise, language-wise, document type-wise distribution and

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.

Hadagali, Gururaj S., Kumbar, B. D. and Keshava (2014) discusses the scientific productivity of polymer science research as reflected in J-Gate for the period from 2000–2009. This study investigates the authorship pattern, geographical distribution of contributors, highly productive authors,

Jeong, Geum Hee & Huh, Sun (2017) the aim of this study was to analyze the bibliometric characteristics of publications from North Korea indexed in the Web of Science Core Collection from 1988 to 2016. The Web of Science Core Collection was searched using the terms “North Korea” OR “Democratic People’s Republic of Korea” OR “DPRK” in the address field of the basic search on February 2, 2017. The country of the co-authors, affiliations, journals, annual number of

also the country-wise analysis which provides the percentage of Indian share to this subject. The analysis also includes institution-wise categorization; Degree of Collaboration and also verifies the fitness of Bradford’s Law of Scattering.

Findings – A number of research questions pertaining to publication frequency, country, and institution productivity and collaborative were proposed and answered. Analysis shows that majority of the scientists preferred to publish research papers in multiple authorship. It also analyses the characteristics of most productive institutions, languages and journals.

highly preferred journals by the scientists, sectoral distribution, Degree of Collaboration (DC) and Collaborative Coefficient (CC) and growth pattern of polymer science research by calculating relative growth rate and doubling time for publication.

publications, and research fields were analyzed. Additionally, the articles by North Korean authors only were analyzed for the same parameters. A total of 318 articles from North Korea were found. The main research fields were physics, mathematics, and materials science. The categories of the journal titles corresponded to the research fields. The rapid increase in the number of articles in 2015 and 2016 was remarkable, although this increase started from a very small baseline number of publications.

8. ANALYSIS AND RESULTS

Table No.1
Types of Documents available on Bibliometric

Sr. No.	Document Type	No. of Documents
1	Article	4025
2	Conference Paper	618
3	Review	478
4	Book Chapter	71
5	Article in Press	64
6	Letter	55
7	Editorial	47
8	Note	27
9	Conference Review	22
10	Book	13
11	Short Survey	12
12	Erratum	7
	Total =	5439

Table No.1 shows that the maximum number of papers published under the category of article is 4025, whereas 618 under the category Conference Paper. There

are 478 Review and the Book Chapter is 71. A small number of contributions are categorized under are Book, Short Survey, Erratum respectively.

Table No.2
Top 10 Authors which write highest documents on the term Bibliometric

Sr. No.	Author Name	No. of Documents
1	Ho, Y.S.	76
2	Bornmann, L.	58
3	Abramo, G.	45
4	D'Angelo, C.A.	44
5	Aleixandre-Benavent, R.	38
6	Sweileh, W.M.	37
7	Zyoud, S.H.	37
8	Al-Jabi, S.W.	35
9	Waltman, L.	34
10	Franceschini, F.	28

Table 2 depicts highly productive authors. It is observed that Ho Y.S. ranks first who has contributed a maximum number of 76 articles, followed by

Bornmann, L. with 58 articles and on 10th Rank 28 articles published by Franceschini, F.

Table No.3 Top 20 Country which highest documents on Bibliometric term

Sr. No.	Country	Documents
1	United States	817
2	Spain	685
3	China	680
4	Brazil	381
5	United Kingdom	358
6	Germany	327
7	Italy	256
8	Netherlands	233
9	Taiwan	226
10	India	197
11	Canada	196
12	Australia	184
13	France	158
14	Sweden	105
15	Belgium	87
16	Japan	87
17	Russian Federation	83
18	Switzerland	83
19	Cuba	78
20	South Korea	75

Table 3 depicts the geographical distribution of authors. Among 5439 articles, United States tops the list with 817 articles, followed by Spain with 685 articles to its credit. China published 680 articles

and Brazil produced 381 articles. India's contribution to Bibliometric research is 197 articles during 2008–2016 which is ranked on Tenth and South Korea published 75 articles with rank twenty positions.

Table No.4
Year wise documents published in Scopus on Bibliometric

Sr. No.	Publication Year	Documents
1	2016	944
2	2015	872
3	2014	775
4	2013	691
5	2012	568
6	2011	488
7	2010	431
8	2009	419
9	2008	251
	Total =	5439

Table No.4 shows that year-wise distribution of Documents. The highest number of documents was published in the year 2016 i.e., 944 and the next one with 872 documents was published in the year

2015 & lowest number of documents 251 was published in the year 2008. The present study indicates that there is an increase in the research articles year by year.

Table No.5

Top -20 Research area used highest number of Bibliometric term

Sr. no.	Research area	Documents
1	Social Sciences	2029
2	Computer Science	1688
3	Medicine	1334
4	Business, Management and Accounting	559
5	Decision Sciences	477
6	Engineering	402
7	Mathematics	348
8	Environmental Science	268
9	Agricultural and Biological Sciences	262
10	Biochemistry, Genetics and Molecular Biology	222
11	Arts and Humanities	217
12	Psychology	189
13	Economics, Econometrics and Finance	138
14	Earth and Planetary Sciences	120
15	Nursing	112
16	Pharmacology, Toxicology and Pharmaceutics	99
17	Health Professions	96
18	Multidisciplinary	86
19	Chemistry	77
20	Energy	76
21	Materials Science	69
22	Physics and Astronomy	69
23	Chemical Engineering	63
24	Neuroscience	61
25	Immunology and Microbiology	49
26	Dentistry	38
27	Veterinary	7
	Total =	9155

Table No. 5 presents the subject-wise categorization of the documents retrieved. Subject-wise analysis indicates that maximum number of contributions was in the area of Social Sciences i.e. 2029 followed by Computer science with 1688

records .The document contribution in the area of Veterinary is less i.e. 7. The Total no. 5439 of original documents in SCOPUS on Bibliometric term and whenever from Table No.5 the Subject wise Total 9155 documents are available. The differences

between documents are shows because by in more than one subjects.
subject wise many documents overlapping

Table No. 6

Highest ranking Sources in which highest number of documents published on Bibliometric term.

Sr. No.	Highest Ranking Sources	Documents
1	Scientometrics	622
2	Journal of Informatics	136
3	Journal of The American Society For Information Science And Technology	87
4	Plos one	69
5	Revista Espanola De Documentation Cientifica	52
6	Research Evaluation	45
7	Espacios	43
8	Library Philosophy and Practice	40
9	Journal of the Association For Information Science and Technology	37
10	Lecture Notes in Computer Science	33

Table 6 indicates that highest ranking sources in which documents was published. As per Table No.6 Scientometrics ranks first with 622 articles to its credit, followed by

Journal of informetrics ranking on second with 136 articles. Lecture Notes in Computer Science is on ten ranks with 33 articles.

Table No.7

Institution-Wise Distribution of Documents

Sr. No.	Institution	Documents
1	Universidad de Granada	138
2	Leiden University	118
3	Consejo Superior de Investigaciones Científicas	106
4	Chinese Academy of Sciences	84
5	Universitat de ValEncia	77
6	Asia University Taiwan	77
7	Peking University	74
8	Wuhan University	66
9	Universidade Federal de Santa Catarina	64
10	Universidade de Sao Paulo - USP	56

Table 7 presents the list of top ten organization contributions on the subject Bibliometric. The institution affiliation from

the address field is taken as the data for this categorization. Among 160 organizations the top listed institutions are only considered

in this study. Universidad de Granada contributed 138 articles which is the highest while Leiden University has 118 articles to

its credit & Universidad de Sao Paulo - USP contributed 56 articles.

9. CONCLUSION

In Scopus, under the category Bibliometric, 5439 items were retrieved among which maximum number of articles was contributed in the year 2016 and minimum in 2008. Subject-wise analysis indicates that maximum number of contributions was in Social Sciences i.e. 2029 & Minimum in Veterinary with 7 records. Document-wise study reveals that the maximum numbers of papers published are under the category “article”. Institution-wise distribution shows that Universidad de Granada contributed 138 articles which are the highest while Leiden University has 118 articles to its credit & Universidad de Sao

Paulo - USP contributed 56 articles. Country-wise analysis indicates that United States tops the list with 817 articles, followed by Spain with 685 articles to its credit. China published 680 articles and Brazil produced 381 articles. India’s contribution to Bibliometric research is 197 articles during 2008–2016 which is ranked on Tenth and South Korea published 75 articles with rank twenty positions. The data suggest that there was a significant research activity in the field of Bibliometric during the study period. The contributions of authors indicate a healthy pattern of progress in this field.

10. REFERENCES

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