

Bibliometric Study of Nanotechnology, Science and Application (2014-2018)

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Abstract:

A bibliometric analysis of the Nanotechnology, Science and Application journal for the period of 2014-2018 has been conducted. The present study deals a bibliometric analysis of 34 papers published in the Nanotechnology, Science and Application Journal on SCOPUS during the period 2014- 2018. Data is collected and analyzed by using the MS-Excel software. The study focused on various aspects: such as document types, of publications and citations, year-wise, authorship pattern, institutions involved, most prolific authors of the journal. The study revealed that most of the papers (85.29%) of papers were contributed by multiple authors. United States is the top producing country with 1 Rank publications of the total output. All the articles were published in English language. The study demonstrates and elaborates on the various aspects of the Journal, such as its distribution of article by year, authorship patterns, distribution of contributions by institution, and geographical distributions of authors.

INTRODUCTION:

Any areas publication productivity is the top most measure in flexing the research's performance capability by various and regional areas. Research publications are the embodiments of the intellectual thought contents expressed in published literature whose key objective is to transmit innovative ideas or information to any specific field of knowledge the further development of a subject or a discipline. In this respect Bibliometric study is regarded as one of the crucial areas of research in the field of Library and Information Science. Bibliometric is a research method used in Library and information science. It is a quantitative study of publication, authorship, and insight into the dynamic of growth of knowledge in the areas under consideration. This can lead to better organization of information resources, which is essential for effective and efficient use. Bibliometric has attained sophistication and complexity with a national, international and interdisciplinary character. (Thanuskodi,2010)

According to Huang et al. (2006), bibliometric data has been used to describe and evaluate countries, universities, research institute, journals, specific research topic and specific discipline.

In the Present Paper an attempt has been made to study the research productivity, authorship pattern, geographical distribution of articles and keywords etc.

REVIEW OF LITERATURE

Various authors have done bibliometric analysis of papers published in various journals in different fields. Thanuskodi,(2010) has done bibliometric analysis of the journal 'Library Philosophy and Practice' from 2005-2009.

Wankhede, Kakde and Khandare (2015) studied the urban library journal on doaj period 2010 – 2014. The study focused on various aspects: such as document types, of publications and citations, year-wise, authorship pattern, institutions involved, most prolific authors of the journal. The study revealed that most of the papers (33.33%) of papers were contributed by multiple authors. United States is the top producing country with 100% publications of the total output. All the articles were published in English language. Their email address in the paper. The study demonstrates and elaborates on the various aspects of the Journal, such as its distribution of article by year, authorship patterns,

Wankhede and Sonwane (2016) studied international journal of operations & production management paper attempts to highlights the quantitative assessment of status of the Journal by way of analyzing the various features of Journal “International Journal of Operations & Production Management”. During 2009-2013 a total of 277 Articles were published in the Journal “International Journal of Operations & Production Management” by researchers in various countries.

Khandare and Sonwane (2015) studied Internet use in library and information science on doaj The study focuses on various aspect of the journal such as document types, growth of papers (year wise), authorship pattern, institutions involved, citation analysis, most prolific authors of the journal, mean page length and number of references.

Journal of Nanotechnology, Science and Application

An international, peer-reviewed, open access journal that focuses on the science of nanotechnology in a wide range of industrial and academic applications. Publish by Dove Press Ltd : Auckland, New Zealand.

The journal is characterized by the rapid reporting of reviews, original research, and application studies across all sectors, including engineering, optics, bio-medicine, cosmetics, textiles, resource sustainability and science. Applied research into nano-materials, particles, nano-structures and fabrication, diagnostics and analytics, drug delivery and toxicology constitute the primary direction of the journal.

OBJECTIVE OF THE STUDY

The present study has been taken to identify the pattern of productivity of Nanotechnology, The main objectives of this study deals with are as follows:

1. To find out the year wise distribution of articles.
2. To study the authorship pattern.
3. To study the geographical distribution of authors.
4. To study the language of articles.
5. To find out the most productive authors in the field.
6. To find out organization – wise distribution of publication.
7. To find out the channels of communications used by the scientists.
8. To find out the high frequency keywords.

SCOPE AND LIMITATION:

The present study is only limited to Nanotechnology, Science and Application Journal. the present paper, 2014 to 2018. The papers presented in the Journal are analyzed using bibliometric analysis technique. The present study is limited to the total numbers of 34 papers published during 2014 to 2018.

RESULTS AND DISCUSSION:

In the views of the objectives of the present study, analysis of “Nanotechnology, Science and Application Journal” Is presented further.

YEAR WISE OF DISTRIBUTION OF ARTICLES

Table No 1 year wise of distribution of articles

Sr. No.	Year	Frequency	Percentage
1	2018	2	5.88
2	2017	15	44.12
3	2016	5	14.71
4	2015	6	17.65
5	2014	6	17.65
Total		34	100



Table No. 1 and chart No. 1 shows the distribution of papers in “open access online journal on Nanotechnology, Science and Application journal” by the year 2014-2018. The journal published 34 papers during the period 2014-2018. The highest number of papers were published in the year 2017 contributing 15(44.12%) papers, followed by 2 papers (5.88%) in the year 2018, 5 papers(14.71%) were published in the year 2016, and in the year 2014,2015 published 6 paper respectively. it is shown in Figure.

AUTHORSHIP PATTERN

Table No. 2 shows Authorship pattern

Sr. No.	Authorship Pattern	Frequency	Percentage
1	Single Author	5	14.71
2	Two Author	5	14.71
3	Three Author	2	5.88
4	Four Author	5	14.71
5	Five Author	6	17.65
6	More Than Five Author	11	32.35
Total		34	100

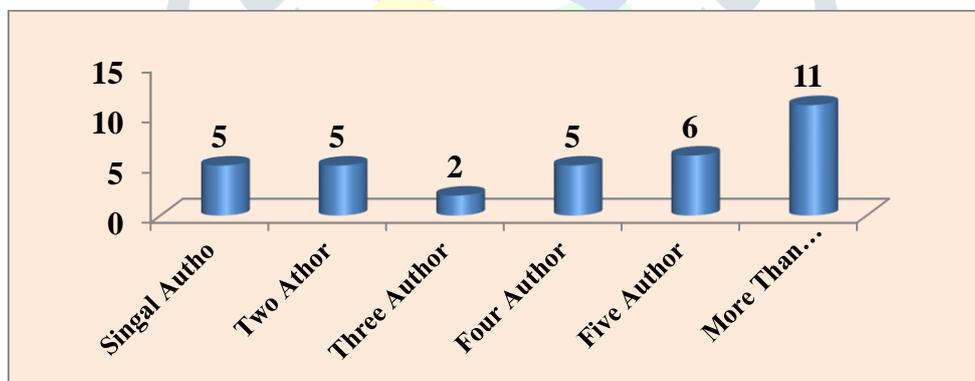


Table 2 shows the authorship patterns of the articles published during the period of study. Of the 34 articles, the largest number of articles had been published by More than Five authors 11 (32.35%). This is followed by corporate authors 5 (14.71%), three authors 2 (5.88%), four Author 5 (14.71) and Single Author authors 5(14.71%).

MOST PRODUCTIVE AUTHORS

It can be observed that, the most productive authors are 152 authors published 34 articles with collaboration respectively.

DOCUMENT TYPE DISTRIBUTION

Table No. 3 Document Type Distribution

Sr. No.	Type of Document	Frequency	Percentage
1	Article	23	67.65
2	Review	10	29.41
3	Erratum	1	2.94
Total		34	100

It was found that the Article is the major Document of used with Frequency count, of 23 (67.65%) of total document used, where as the Revive is used in 10 (29.41%) and Erratum 1(2.94).

AFFILIATION WISE DISTRIBUTION

Table No. 4 Affiliation wise distribution

Sr. No.	Affiliation	Frequency	Rank
1	University Putra Malaysia	3	1
2	Rensselaer Polytechnic Institute	2	2
3	One Time Cited Affiliation (68 X 1)	68	3
Total		73	

It can be observed from Table No. 3 that, there were 34 organizations involved in research activity. The organizations that have contributed in the publication during 2014-2018. University Putra Malaysia topped the list with 3 publication followed by Rensselaer Polytechnic Institute with 2 publications and 68 institutions with Single publication.

KEYWORD WISE DISTRIBUTION

Table No. 5 Keyword Wise Distribution

Sr. No.	Keyword	Frequency	Rank
1	Controlled Study	16	1
2	Particle Size	16	1
3	Nonhuman	12	2
4	Unclassified Drug	9	3
5	Human	8	4
6	Synthesis	8	4
7	Nanocomposite	7	5
8	Nanomaterial	7	5
9	Nanoparticle	7	5
10	Nanotechnology	7	5
11	Physical Chemistry	7	5
12	Silver Nanoparticle	7	5
13	Surface Property	7	5
14	Zeta Potential	7	5
15	Chemical Structure	6	6
16	Cytotoxicity	6	6
17	Cell Viability	5	7
18	Drug Delivery System	5	7
19	Four Cited Keyword (14 X 4)	56	8
20	Three Time Cited (20 X 3)	60	9
21	Two Time Cited Keword (60 X 2)	120	10
22	One Time Cited Keyword (46 X 1)	46	11
Total		429	

It can be observed from Table No.5 that, the high frequency keywords were Controlled Study (16), Particle Size (16), Nonhuman (12), Unclassified Drug (9) Human (8), this is the top five keyword.

LANGUAGE WISE DISTRIBUTION

Table No.6 Language wise distribution

Sr. No.	Language of Document	Frequency
1	English	34
Total		34

Table No.6 shows language wise distribution of Nanotechnology, Science and Application Total 34 Articles were publish in English language on SCOPUS.

GEOGRAPHICAL COUNTRY WISE DISTRIBUTION

Table No. 7 Geographical Country Wise Distribution

Sr. No.	Country	Frequency	Rank
1	United States	9	1
2	India	6	2
3	Brazil	4	3
4	France	4	3
5	China	3	4
6	Malaysia	3	4
7	Canada	2	5
8	United Kingdom	2	5
9	One Time Cited Country (17 X 1)	17	6
Total		50	

The table no. 7 shows that United States scored the top position with 9 Articles; Second rank goes to India with 6 Articles, followed by the third rank goes to Brazil with 4 citations respectively.

CONCLUSION:

This single journal study helps to characterize the source journal Nanotechnology, Science and Application journal in various parameters like growth and author, authorship patterns, author productivity, single and multi authored paper by year geographical distribution of articles, etc. The Findings helps to determine the importance or significance of journal in LIS field. It is anticipated help to that the results of this study will serve as a model for single journal bibliometric studies of journal of similar nature.

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