Bibliometric Analysis of contributions in the Journal of Dairying, Foods and Home Sciences from 2003-2012

Shanta S, Betageri
Assistant Librarian,
Regional Campus Library, KVAFSU, Hebbal,
Banglore. Karnataka, India.
Shantabetageri@gmail.com

Abstract

This paper presents the findings of a bibliometric study one of the renowned Journal of Dairying, Foods and Home Sciences into consideration with an aim to analyses the contributions of the author and the citations cited by various articles appeared in it. The present paper covers the bibliometric analysis of year wise distribution of articles, subject wise distribution of articles and authorship of contributions. The present study analysis 34 issues containing 542 articles published in the said journal from 2003-2012. Highest number (65) of articles is published in 2013. Most of the articles 283(52%) are 1-4 pages long.

Keywords

Bibliometric study; Journal of dairying Foods and Home Sciences; Citations.

Electronic access

The journal is available at www.jalis.in

Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 4. No.1. 2015. pp. 86-89

INTRODUCTION

Literature is the through content expressed by the author in published writings. It is the sensitive indicators of the emerging new ideas in any discipline. The primary role of literature is to record and transmit innovative ideas or discoveries in any specific field of knowledge that bring in advancement of knowledge and further development of a subject as well. Therefore, a careful evaluation of literature may indicate a complete picture of the discipline towards development. The term ‘ Bibliometric ’ was coined by Pritchard in 1969, and he defined that ‘ bibliometric is the application of mathematical and statistical methods for measuring quantitative and qualitative changes in collections of books, journals, and other publications’. By using quantitative analysis it is possible to measure the scattering of articles to different journals and also make it possible to measure growth and obsolescence of literature in different subjects.Bibliometrics is an emerging thrust area of research and has now become a well established part of information research and a quantitative approach to the description of documents.

The most used bibliometric methods such as citation analysis, bibliographic coupling, coward analysis and co-citation analysis can be used to map the knowledge structure and the use of literature. Bibliometric techniques have evolved over time and are continuing to do so. The counting of papers with attribution by country, by institution and by author, the counting of citations, to measure the impact of published work on the scientific community etc. In,1948,the Father of Indian library scientist, Dr. S.R.Rangnathan, coined the term librametry”, Which histrorically appeared first and was intended to modernize the services of librarianship. Bibliometrics is analogous to Ranganathan’s librametrics, the Russian concept scientometrics, informatrics and subdisciplines like econometrics, psychometrics, sociometrics, biometrics, technometrics, chemometrics and climetrics, where methematics and statistics are applied to study and solve problems in their respective fields. Scientometrics is now used for the application of quantitative methods to the history of science and overlaps with bibliometrics to a considerable extent.

ABOUT THE JOURNAL

Journal of Dairying, Foods and Home Sciences(JDFHS) is an official publication of the Agricultural Research Communication Centre. This journal provides forum for the scientific community

to publish their original research articles/short communications in the field of dairying, food, nutrition, rural development, women development etc. and focuses on new developments. The journal is being published for the last thirty two years and is being scanned in the important indexing and abstracting journal of the world.
In order to examine the characteristics and trends of articles published in Journal of Dairying, Food and Home Science, a total of 542 articles from the following years were collected for analysis:

- 2003-20010 during Dr. V. D. Mudgal was the editor .
- 20011-2012 during Dr. Ghanshiam Singh Rajorhia was the editor.

REVIEW OF LITERATURE

Bibliometrics is the quantitative analysis of research publications. Bibliometric analysis is used in the study of scholarly communication. Vijay & Ragjavan have done citation analysis, a set of items (authors, documents, journals etc.) for the journal " Journal of Food Science and technology". Thanuskodi studies many bibliometric aspects of papers in Journal of Library Philosophy and Practice form 2005-2009 and Kulkarni, Poshett, & Narwade carried out a bibliometric analysis of the journal Indian Journal of Pharmaceutical Education and Research revealed that journals were the pre-dominant citation source followed by books. Analysis shows that majority of the scientists preferred to publish research papers in multiple authorships and there is considerable time lag in publication of articles from the date of receipt of the papers (Kulkarni, Poshett, & Narwade, 2009).. Tsay and shu conducted some statistical analysis on the citation patterns of the Journal of Documentation and found that journal articles were the most cited documents. Journals are the indicators of literature growth in any field of knowledge. They emerge as the main channel for transmitting knowledge.

NEED FOR THE STUDY

Periodicals are the indicators of literature growth in any field of knowledge. They emerge as the main channel for transmitting knowledge. Due to the escalating cost of the periodicals and lack of adequate library budgets, the selection of any particular journal for a library should be done carefully. Therefore, the library authorities are forced to reduce the number of journal subscription.

OBJECTIVES OF THE STUDY

The principal objective of the present study is to conduct a bibliometric study of the papers reported in the Journal of Dairying food and Home science from 2003-2012 under the following objectives:

- To study year-wise distribution of papers
- To examine and study the volume wise distribution of contributions
- To examine the average number of citations per volume
- To study the subject coverage of articles
- To find out the authorship pattern of contributors
- To study the length of articles

METHODOLOGY

The present study Makes an attempt to analyses the bibliographic attributes of the articles published by Journal of Dairying, Foods and Home Sciences from 2003-2012: 10 Volumes (vol. 21 to 32) containing 32 issues have been taken up for the study. The information like authors, states, contributions institutions is extracted from Journal of Dairying, Foods and Home Sciences website published by Agricultural Research communication Centre, Karnal, Haryana, India..The collected data have been analysed and is presented in the form of tables and figures.

DATA ANALYSIS AND INTERPRETATION

The articles published in the Journal of Dairying, Food and Home Science was manually scanned and all needed data has been recorded on a data input sheet designed for the purpose. For presenting the data in graphic the MS-Excel was used. The collected data was subjected to the analysis as per the objectives of the study.

Table 1: Year wise Distribution of articles

Year	No. of Articles	Percentage
2003	55	10
2004	42	08
2005	54	10
2006	55	10
2007	48	09
2008	50	09
2009	56	11
2010	48	09
2011	63	12
2012	65	12
Total	536	100

During the period 2003 to 2012 , 542 articles were published. Table 1 ,shows the monthly wise contributions of the journal of dairy, food and home science. 2012 year 31 volume shows the highest number of total 65 contributions. 2003 year 23 volume shows the lowest number of contributions.

Table2: Distribution of Contributions (Volume wise)

Year	Vol. No	No. of Issues	No. of Contributions	%
2003	22	3	55	10
2004	23	3	42	08
2005	24	3	54	10
2006	25	3	55	10
2007	26	3	48	09
2008	27	3	56	10
2009	28	3	56	10
2010	29	3	48	09
2011	30	4	63	12
2012	31	4	65	12
Total	10	32	542	100

The total number of contributions in the ten volume was 542. The year 2012 & 2011 shows the highest number of contributions 65(12%) & lowest contributions are in the year2004 showed the 42 (8%).

Table 3: Authorship Pattern of Contributions

No, of Authors	No. of contributions	Total No of Authorship	%
1	20	20	1
2	201	402	25
3	194	582	37
4	77	308	20
5	38	190	12
6	12	072	5
Total	542	1574	100

Productivity pattern of authors in Journal of dairy, foods and Home science was determined by analyzing the data Table 3, workout the percentage of productivity of the authors either single or in collaborative work. On analysis of the data , majority of the papers were found to be three authored. Papers with three authors constitute the bulk of the publications (37%). Papers authored by two author constituted of (25 %) .Paper with four authors constitute the bulk of publications (20%). Papers with five authors constituted of (12%). Papers with six authors constituted of (12%). The productivity of papers with single author is negligible with the percentage of contribution is 1 %.

Table 4: Subject Distribution of Articles

Subjects	No. of articles	Percentage
Fruits and Vegetables	95	18
Food grains	125	23
Dairy Products	66	12
Dairy Farming	29	05
Animal Husbandry	35	06
Rural Development	38	07
Dairy management	30	06
Nutrient value of food	44	08
Food Package and preservation	33	06
Other	47	09
Total	542	100

Table 4 Shows that a majority of contributions appeared under food grains (23%) and fruits and vegetables (18%), dairy products shows (12%), nutrient value of food shows 8 % rural development concern contributions shows 7 %. Animal husbandry, dairy management andfood package and preservation concern contributions shows 6%. In the field of dairy farming shows lowest contributions(5%).

Table 5: Distribution of Citations(Volume wise)

Year	Vol. No	No. of Citations	%
2003	22	498	09
2004	23	563	11
2005	24	416	08
2006	25	622	12
2007	26	384	07
2008	27	541	10
2009	28	543	10
2010	29	469	09
2011	30	560	10
2012	31	731	14
Total	10	5327	100

Table 5 indicates the range and percentage of citations per volume. The volume 31 having a maximum citations 731(14%). This is followed volume 25 having a 622 (12%) citations, volume 23(11%) citations. Volume 29 (08%) contains lowest number of citations.

Table 6: Length Wise Articles

Pages	Year										Total	%
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
1-4	27	17	27	37	22	35	35	22	26	35	283	52
5-8	25	21	26	14	21	20	20	22	31	25	225	42
8-Above	03	04	01	04	05	01	01	04	06	05	34	06

Most of the articles 283(52%) are 1-4 pages long, followed by 225 (42%) articles with 5-8 pages, and the remaining 34 (6%) articles have the length of above 8 pages.

Table 7: Articles and references

Particulars	**No. of Contributions**	**%**
With reference	493	91
Without references	049	09
Total	542	100

Nearly all contributions have references 493 (91%) and contributions without references 49 (9%).

Table 8: Forma of documents cited

Forms of documents	**Total No. of citation**	**%**
Journals	3053	57
Books	564	11
Seminar/Conference	431	08
Dissertations	965	18
Others	334	06
Total	5327	100

Majority of the articles preferred journals as the source of information which occupied the top position with the highest number of citations 3053 (57%) of the total 5327 citations. This is followed by 965 (18%) occupied by dissertations. It is followed by books 564(11%), seminar/conference 431(8%) and others 334(6%).

FINDINGS

The journal has a long term history of 32 years, of which this study examined ten (2003-2012).In this long period the journal has keep up its main aim of acting as a medium for communication of all sorts of information to scientists, researchers and business mans. The present study reveals that the highest number of articles have appeared in the area of Food grains and fruits and vegetables.

REFERENCES

1. Das,Tappas Kumar.(2013), "A biblionetric analysis of contributions in the journal 'Library Trends', *Library Philosophy and Practice* (e-journal), paper 1014

2. Kulkarni, A., Poshett, B., & Narwade, G. (2009). Indian Journal of Pharmaceutical Education and Research (1996-2006) – a bibliometric analysis. *Annals of Library and Information Studies , 56* (4), 242-248.

3. Kunwar P Singh, Aarti Jain, and Parveen Babbar.(2011). DESIDOC Bulletin of Information Technology: A Bibliometric Study. *SRELS Journal of Information Management*, 48, (1) pp.57-68.

4. Ranganathan, S.R."Library and its Scope" DRTC Annual Seminar 702 (1969: 285-301)

5. Thanuskodi S.(2010,October). Bibliometric analysis of the Journal Library Philosophy and Practice from 2005-2009. *Library Philosophy and Practice*, pp1-6

6. Vijayakumar P,Indian Journal of Biochemistry and biophysics (2001-2010): A Bibliometric Analysis . National Seminar on ELITE 2011 9-10 December, pp 672-678.

7. Vijay, K R & Raghavan,I. (2007). Journal of Food Science and Technology: A Bibliometric study, *Annals of Library and Information Studies*, Vol 54, No 4, pp 207-212.

8. www.webpages.uidaho.edu/~mbolin/thanuskodi-lpp.htm