

# Research on Indian Journal of Fiber and Textile Research: A Scientometrics Study Conducted During 2013-2017

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**Abstract** This paper analyses the articles published from 2013 – 2017 by Indian Journal of Fiber and textile research. The data were retrieved from India Citation Index during the period. The study analyze 925 articles were published by the IJFTR journal and the highest number of research papers were published in the form of articles. The highest citation value is 166 in the year 2009 .This IJFTR journal tries to give a clear picture of the research articles publication growth rate that gradually increased year by year, and are indexed at Indian Citation Index.

**Keywords:** Research, Indian Citation Index, relative growth rate, textile

## I. INTRODUCTION

The term Scientometrics was two Russian coined the Russian term 'naukometriya', the Russian equivalent of the term Scientometrics (Nalimov & Mulechenko, 1969; Nalimov, 1970). Scientometrics is a discipline that uses mathematical methods to quantify the scientific research personnel and achievements to reveal the process of scientific development, and can provide scientific basis for scientific decision making and management (Qiu et al., 2017)

Indian journal of fiber and textile research was started in the year 1976, this journal published on both fundamental and applied research in various branches of textile and technology and allied areas such as Production and properties of natural and synthetic fiber, yarn and fabrics; physics and chemistry of fiber forming polymer; testing and quality control; Application of microprocessors; instrumentation; application of nanotechnology in textile; and industrial engineering. This journal provides immediate open access to its content on the principle that making research freely available to the public supports a grater global exchange of knowledge. Indian journal of fiber and textile research is a single blind peer review quarterly journal.

### OBJECTIVE OF THE STUDY

- To determine the year wise distribution of articles
- To analyze the year wise journal research impact indicator
- To identify the journal current index
- To identify the average citation per year
- To find out the publications rate according to article, citation and self citation

## II. REVIEW OF LITERATURE

(2013) conducted bibliometric study on Research productivity of Alagappa University during 1999-2011. The study analyses the productivity of authors, subject-wise and institution-wise collaboration and ranking of authors in research contribution of Alagappa University during 1999-2011. In this study, the Relative growth rate (RGR) was found to be a fluctuating trend. The doubling time (DT) was found to be increased and decreased trend in this study.

Baskaran, C & Sivakami, N. (2014) carried out a bibliometric analysis on Swine influenza research output. In this study, a total of 2360 articles were downloaded from Pubmed database using the search term" Swine\*". The study focuses publication frequency, country, and institution productivity. Analysis shows that majority of the scientists preferred to publish research papers in multiple authorship. It also analyses the characteristics of most Journal of Advances in Library and Information Science, Vol.7, No 1.Jan-Mar. 2018, pp-103-108 Journal of Solar Energy Engineering, and Transactions of the ASME: A Scientometric Analysis/S. Radhakrishnan & C. Baskaran 104 productive institutions, languages and journals.

Baskaran, C. (2013) examined the Research growth trend and author collaboration of Alagappa University in India during 1999-2011, the study analyses the authorship Productivity, Discipline-wise and institution-wise collaboration and ranking of authors. In this study, The Degree of collaboration and its means value is found to be 0.963. The top three institutions with Alagappa University are Central Electro Chemical Research Institute, National Cheng King University and Anna University.

Vinodkumar Goutham and Rajani Mishra analysed the 1041 articles collected from ICI for the period of 2004-2013. The study attempts to measures year wise distribution

of publication output, co authorship index, collaborative coefficient and collaborating Universities and Institutes.

P.Panneerselvam examined the research performance of central Universities in India this article is a study about research performance of Central Universities in India. The data were collected from Indian Citation Index, which compiled records for the period 2015-2016. There are 47 central universities are functioning across the country. Article publications which are indexed at Indian Citation Index were taken for the study as university wise, individual author performance, dominant subject, citation, citation per article, etc. This article trying to give a clear picture of research performance of central universities based on the publications, which are indexed at Indian Citation Index.

Shankar Reddy Kolle and Shankarappa T H analysis of articles published during the period of 2009-2015 by University of Horticultural Sciences, Bagalkot, Karnataka, India was undertaken, to reveal the year wise distribution of articles, citations, types of publications, prolific authors, preferred journals, authorship pattern and degree of collaboration. A total of 170 articles were published by the university and majority of the articles were written by more than three authors. Tatagar, M. (10; 6.47%), Kotikal, Y. K. (10; 5.88), Mesta, R. (10; 5.88%) were the most prolific authors for the period. Majority of the articles were contributed by the multiple authors and the value of degree of collaboration was 0.994. Environment and Ecology (23; 13.53%), Asian Journal of Horticulture (19; 11.18%), Karnataka Journal of Agricultural Sciences (10; 5.88%) were the most preferred journals by the scientists working in the UHS, Bagalkot for the publication of their research findings respectively

### III. RESULT AND DISCUSSION

During the period of 2003- 2017, Indian Journal of Fiber and Textile research has published 995 article with these five years, a minimum of 53 articles in 2010 and maximum of 76 articles in the year of 2006.

Table 1 Year wise distribution

| Year | No. of articles | Percentage |
|------|-----------------|------------|
| 2003 | -               |            |
| 2004 | 67              | 7.24       |
| 2005 | 65              | 7.027      |
| 2006 | 76              | 8.21       |
| 2007 | 67              | 7.24       |
| 2008 | 59              | 6.38       |
| 2009 | 54              | 5.9        |
| 2010 | 53              | 5.7        |
| 2011 | 58              | 6.3        |
| 2012 | 59              | 6.4        |
| 2013 | 64              | 7.0        |
| 2014 | 66              | 7.1        |
| 2015 | 66              | 7.1        |
| 2016 | 66              | 7.1        |
| 2017 | 69              | 7.1        |

Table 1 shows the growth rate of articles published in the Indian Journal of Fiber and Textile Research over the previous period it has been calculated. The IJFTR from the year 2004 is 7.2, the final year 2017 is 7.45, the growth gradually increased but in the middle there were some fluctuations.

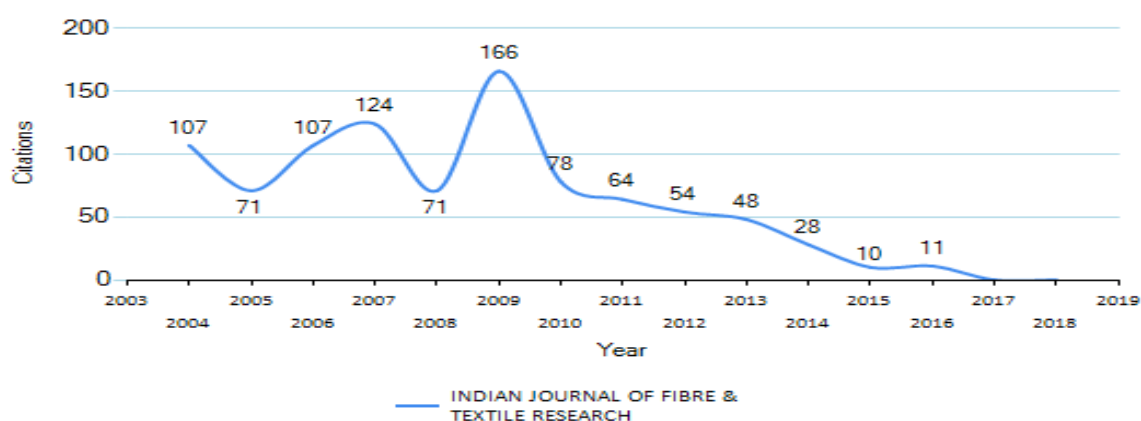


Figure 1 Citation wise distribution

Figure 1 highlights the growth rate of citation during the study period 2003-2017. The IJFTR citation from the year 2003 is 939, the final year 2016 is 11, and the middle year

2009 the citation value is 166, but the citation growth gradually decreased from over the years.

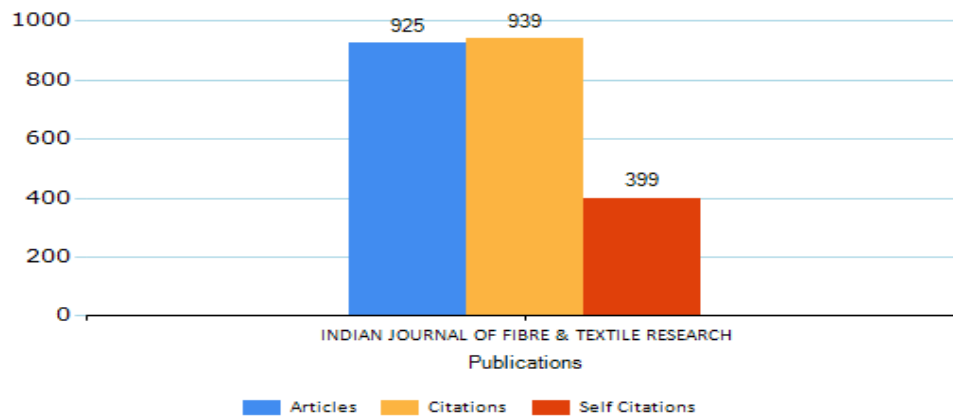


Figure 2 Publication wise distributions

Figure 2 shows that article, citation and self citation in the journal “Indian Journal of Fiber and Textile Research” during the year 2003- 2017 925 articles were published in IJFTR and citation value is 939 followed by 399 self citation.

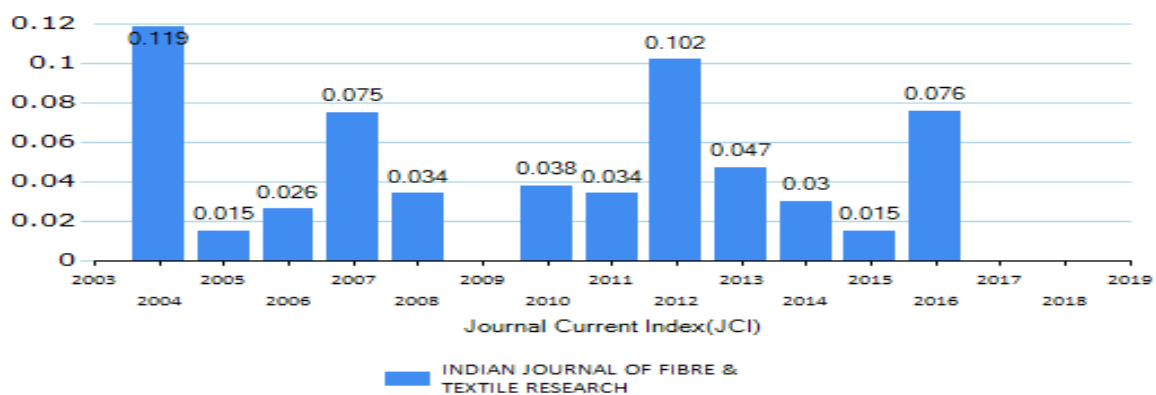


Figure 3 Journal Current Index

Figure 3 observed in the JCI (Journal Current Index) in Indian journal of Fiber and Textile Research, JCI value is high in the year 2004 is 0.119 and 2012 is 0.102 and the final year 2016 is 0.076.

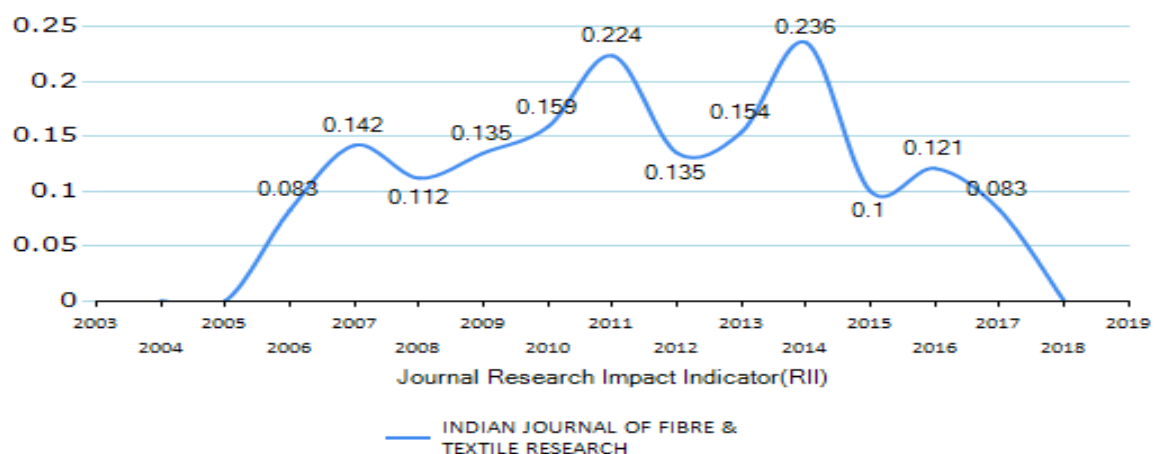


Figure 4 Journal Research Impact Indicators (RII)

Figure 4 shows journal research impact indicator (RII) during the period 2005- 2017. The rate value is high in the period of 2014 the value is 0.236 and the final 2017 RII value is 0.083.

## IV. CONCLUSION

Indian Journal of Fiber and Textile research has published 925 articles during the period of 2003-2017 with an yearly average of 62 out of 925 articles, minimum articles of 53 (5.7) were published in the year 2010 and the maximum of

76 articles (8.2) were published in the year of 2006. The growth rate shows as increasing trend from the year 2004 and it is 7.24 and final year 2016 is 7.45. The time series analysis technique reveals the estimated future growth of articles in journal "Indian Journal of Fiber and Textile is positive in relations by the year wise publications.

## V. REFERENCES

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