Chapter 7
Altmetrics Research on the Global Output: A Scientometric Analysis

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ABSTRACT

The chapter describes the research publications on altmetrics research during 2012-2019. A total of 461 publications were brought out on this area over period of study. 25.81% of the publications were published in the year 2018. It is analyzed that information science and library science areas hold the majority 293 (63.55%) of the publications, and the University of Wolverhampton has contributed the highest number (40; 8.67%) of the publications in the field of altmetrics. The study found that lowest relative growth rate (RGR; 0.04) was found in 2008. 2010, 2012, and 2014 RGR rose up to 0.75 in 1990, and the average mean value of relative growth rate (RGR) is 0.15. The highest number of publications (293; 63.55%) accumulated from information science library science. This area has been ranked first among 25 research fields listed in the study.

INTRODUCTION

The term “Bibliometrics” introduced by Pritchard (1969) is often used to assess scientific research through quantitative studies on research publications. Bibliometrics is “the branch of library science concerned with the application of mathematical and statistical analysis to bibliography; the statistical analysis of books, articles, or
other publications” (Oxford English Dictionary, 2012). The Bibliometric methods are very useful for measuring the dissemination of knowledge in the natural sciences, but they are less effective in some applied fields, such as engineering (Van Raan, 2003). Bibliometric studies are helpful in evaluating library services, collection development, policy refinement, decision making, resource allocation and even weeding. Data produced by bibliometric methods provide a scientific basis to library administrators for decision making. Bibliometrics has been considered useful for curriculum analysis (Juznic & Urbanija, 2003) and for an appraisal of research output quality (Middleton, 2005).

REVIEW OF LITERATURE

Seglen and Aksnes (2000) analyzed the relationship between research group size and scientific productivity within the highly cooperative research environment characteristic of contemporary biomedical science, an investigation of Norwegian Microbiology was undertaken. Dalpe (2002), observed that assess its quality for bibliometric studies attempting to analyse the evolution of biotechnology research, to map leading organizations, and to study the interaction between science and technology. This study analyses the research output in India in neurosciences during the period 1999-2008 and the analyses included research growth, rank, global publications’ share, citation impact, share of international collaborative papers and major collaborative partner countries and patterns of research communication in most productive journals (Adarsha Bala and Gupta, 2010).

A total number of 2810 publications were obtained in the study period. The study reveals that the majority number of records was published in 2015, followed by 603 records published in 2014, 554 records have published in 2013, 508 record have published in 2012, and 473 records were published in 2011. The document type wise research publication in solar energy, the articles has a predominant place with 90.1 per cent, and followed by review 5.3 per cent, article; proceedings papers has third place with 3.6 per cent, Editorial Material and other types least percent number of have published (Rangasamy and Umadevi, 2011).

Bakthavachalam Elango (2017) this study reveals that 55 per cent of publications were citable articles; average number of authors per article was 4.57; 136 per cent increase in impact factor and reviews received highest citations per paper. Harvard University had most number of publications, whereas University of Cambridge had highest CPP among the most productive institutes. Saravanan, and Baskaran (2018) analyzed the map the number of publications, growth rate and doubling time, scattering of publication over journals, and its impact on publication output, authorship patterns and Global citation score of bioremediation research publication...
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