BIBLIOMETRICS A TOOL FOR LIS RESEARCH: AN INSIGHT AMONG LIBRARY PROFESSIONALS

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ABSTRACT

Bibliometrics is a set of methods to quantitatively analyze scientific and technological literature. This method is commonly used for citation analysis and content analysis. Bibliometrics have wide applications in the research fields to explore the impact of the field, the impact of a set of researchers, or the impact of a particular paper. Bibliometrics are now used in quantitative research assessment of academic output. Historically bibliometric methods have been used to trace relationships amongst academic journal citations. Bibliometric methods are most often used by the research scholars of library and information science. The main aim of this paper is to explore the insight of LIS professionals on the use of bibliometrics for their research.

Key words: Bibliometrics, Insight of LIS professionals, Experimental Study

Introduction

Bibliometrics is a branch of library and information science. Bibliometrics is a set of methods used to study or measure texts and information. Bibliometric tools can be used to measure and compare the scientific activities at various levels of aggregation including institutions, sectors, provinces and countries. The term bibliometrics was first coined by Pritchard in 1969. An initiating example of a bibliometric study was statistical analysis of the literature of comparative anatomy from 1543 to 1860, done by including book and journal titles, and grouping them by countries of origin and periods. According to Hulme (1923) entitled "Statistical Analysis of the History of Science". His investigation was based on the entries in the English International Catalogue of Scientific Literature. Zipf's law (1949) relates to the frequency of word occurrence. Zipf derived his law from the empirical law of least effort. He said that there is relationship between the rank of the word and its frequency of textual matter, if the words are arranged in their decreasing order of frequency of occurrence in a long text. This law indicates that, "in a long textual matter if the words are arranged in their decreasing order of frequency then the rank of any given word of the text will be inversely comparative to the frequency of occurrence of the words". Another important work was Bradford's 1934 article on the distribution of literature in lubrication research. It is an important part of the theoretical foundation of bibliometrics, "Bradford's Law of Scattering". In 1948, the Father of Indian library scientist, Dr. S.R. Ranganathan, coined the term "librametry", which historically appeared first and was intended to modernize the services of librarianship. Bibliometrics is analogous to Ranganathan's librametrics.

Bibliometrics: Definition

Pritchard (1969) explained the term bibliometrics as “the application of mathematical and statistical methods to books and other media of communication". Nalimov and Mulchenko (1969) defined scientometrics as “the application of those quantitative methods which are dealing with the analysis of science viewed as an information process". Almind and Ingwersen (1997). defined of webometrics has also been introduced, "the study of web-based content with primarily quantitative methods for social science research goals using techniques that are not specific to one field of study"

Three “components” of bibliometrics

- Bibliometrics for bibliometricians (Methodology)
Bibliometrics for scientific disciplines (Scientific information)
Bibliometrics for science policy and management (science policy)

Why bibliometrics?
Necessity of a ‘metrics’ for scientific research
- Growth of scientific literature
- Challenges of “big science”
- Challenges of globalization

Purpose of the study
The study focuses on the use of bibliometrics in the field of LIS. The purpose of the study is to investigate the insight of library professionals on use of bibliometrics for their research. Insights toward bibliometrics were examined using two variables i.e
1. Opinion
2. Knowledge.

Objectives
This study aims
- To find the usefulness of Bibliometrics for LIS research
- To find the feasibility of data collection for bibliometric research
- To find the knowledge of LIS professionals on bibliometrics.

Methodology
As part of this study, a well framed questionnaire was used to collect the data from the LIS professionals to know the opinion and knowledge of them on bibliometrics. 65 questionnaires were distributed and 52 responses were received.

Limitations
This study is confined towards the insight of LIS professionals who are working in colleges situated in Chennai city on use of bibliometrics for their research.

Research Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Agree</th>
<th>Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliometrics is very useful for LIS research</td>
<td>41</td>
<td>11</td>
<td>52</td>
</tr>
<tr>
<td>Data collection is easy for Bibliometric research</td>
<td>43</td>
<td>09</td>
<td>52</td>
</tr>
<tr>
<td>Data analysis is easy</td>
<td>36</td>
<td>16</td>
<td>52</td>
</tr>
<tr>
<td>Knowledge of library professionals on data analysis is good</td>
<td>35</td>
<td>17</td>
<td>52</td>
</tr>
</tbody>
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![Graph showing the agree and disagree responses for each variable]
Findings
This research analysis reveals the following insight of LIS professionals
- Majority of the library professionals felt that Bibliometrics is a good field to pursue their research.
- Getting data is being very easy for them to do their research.
- But, to do the data analysis, they have to put more effort.
- LIS professionals need to develop their skills in analyzing the data for the betterment of the research.

Conclusions
The need for metrics in information services, science policy and research management has become widely recognized. Successful application of Bibliometrics methods have largely contributed to their increasing popularity. From the professional perspective, the widened competencies may carry a potential to increase the status of librarianship, since quantitative evaluation indicators traditionally have been held in high esteem in academia. This is of course something that can be ‘put to use’ when assisting scholars in developing strategies for dealing with new criteria for the evaluation of their research.

Bibliography