

An Effective Study on Basic Measures of Indexing in Journals

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Abstract--- *An indexed journal database for any discipline is needed to organize the research articles in a systematic way. It works as a simple bibliometric. An understanding of basic concepts and practices of indexed journal is a must for any author before publishing the article. In this modern era there are various publishers that the authors can approach to publish their articles, thesis, reports, books etc. These publishers have several subject matter experts in various domains who review the submitted articles carefully before publishing the work of the author. Also, indexing reflects the high-quality work of the author which is calculated considering various factors and formulas.*

Keywords--- *Citation, Journal, Article, Review, Index, Impact Factor (IF), Publish.*

I. INTRODUCTION

A journal can be indexed in various databases, depending on the subject domain. These databases index the journals based on various disciplines, such as the citation index and other specialized index. Once a journal is indexed in any related type of database, it is quickly made available to all the registered users for that database journal. Some journal databases will index only titles, some indexes full articles while some other journals will index only the abstract and/or references. Currently in most of the journal databases there are several journal abstracting and indexing services available to the public users. Some are affiliated to the institutions, while some are provided by publishers. An index citation is like bibliography, it allows user to establish which articles have been cited how many numbers of time and how often. Every journal has 'Indexing' menu where the publisher displays the entire journal's indexed information. In present generation most of the academic organization have a keen look on publication counts and obtains the subjective opinion of peers. Many committees in terms of hiring, tenure, and promotion rely heavily on citation analysis in order to find out more about objective assessment of an author's work. Indexing and abstracting services of journal facilitates the scholars in a very broader approach to disseminate the appropriate information by pointing researchers to articles that are relevant to their subject domain.

II. INDEXING- HISTORY, CONCEPT AND PRACTICES

Since many years the huge collection of information is stored in computer or in a set of cards in some order, either in alphabetical, chronological or in any type of organized format. Indexing acts as a pointer to a list of stored data. Here we have outlined few of the major prominences on how indexing came into effect for journals:

A concordance is a chronologic alphabetical list of the foremost vital words utilized in a book or within the content body, that lists each instances of every word. Solely the foremost vital works have had concordances ready for them, like the holy books of any faith or the works of renowned authors like William Shakespeare, James

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Augustine Aloysius Joyce or Latin and Greek authors, this is often due to the dearth of time, issue and expense concerned in making a concordance within the earlier centuries.

Printed book indexes started in the 1460s, almost from the beginning of the printing era. Various developments in medicine were aided by indexes to medical texts and herbals. The first printed concordance for Bible was published in 1544.

Alexander Cruden in 1700 was the author of an early concordance to the Bible that was followed by Samuel Johnson creating an authoritative dictionary of the English language, which was the first index to the English language.

In 1877, the index society in London came up with the aim of publishing and distributing “photographic copies” of unprinted lists and indexes for the universal literatures. Later in 1957 emerged the society of indexers.

In the epoch, classification of journals is to be recognized as an extremely resourced and authoritative supply of data that has got to be highlighted among several alternative publications journals that measures journal jammed within the publication world. Journals ought to guarantee to boost their visibility, convenience and audience in any extremely indexed journals. One amongst the suggestions by the journals are able to do this can be by obtaining their publication indexed by one or additional leading journal databases.

Purpose of practising indexing is to help in faster learning, acknowledging, understanding of profound prominence of the subject, intellectual persons and interrelationship among them. Also, it helps in discovering the facts from previous discoveries.

III. INDEXING AGENCIES

A journal should be widely available to the public, recognized as an authoritative, high-quality supply of knowledge and guarantee increase in its prominence. Indexing and abstracting services facilitate the promulgation of knowledge by guiding the researchers to articles that are relevant to their field. Once a journal is launched which has good track record and features a timely publication and possesses real substantial content, it's acceptable to contact indexing and abstracting services for any further process by the indexing agencies. Presently there are varied indexing agencies, a few of the vital ones are mentioned below:

Web of Science is a web subscription based mostly citation assortment service that was initially made by the Institute for Scientific Information (ISI), later maintained by Clarivate Analytics that supports varied disciplines like social science, science, arts, humanities.

Scopus is an abstract and citation database by Elsevier launched in 2004. Elsevier is an data or information and analytics company from Dutch and one among the world's major suppliers of scientific, technical, and medical information. It was established in 1880 as a firm, that publishes all the journals indexed in Scopus database. Scopus is a peer-reviewed journal within the subject fields like life sciences, social sciences, physical sciences and health sciences.

Google Scholar is a freely accessible web search engine that indexes the scholarly literature across a series of publishing formats and disciplines. Released in November 2004, the Google Scholar index includes most peer-reviewed online educational journals, books, conference papers, dissertations, technical reports, and other alternative scholarly literature.

IV. INDEXING PARAMETERS

Indexing parameters are used to verify the impact of a journal during a given field of research and additionally to spot the suitable journal for the author to publish the article. It is reported annually in Journal Citation Reports. The sole metric offered for several years is journal impact factor. The extremely hierarchal ranked journal has the very best impact factor.

Scholars have used standard research metrics, like scholarly output and citation counts, to derive formulas to measure and assess author and journal impact in new ways.

There are varied databases listed that offer basic statistics like number of articles revealed and published each year, range of citations to the journal annually and number of references created annually. A few of them is listed below:

V. IMPACT FACTOR

The first metric created for scholarly journals was Journal Impact factor. Eugene Garfield first apprehended the thought of bearing the idea of impact factor in 1955. It is accustomed to confirming the impact of a specific journal to a given field of research associated additionally to work within which journal an author would like to publish. It is reported according every year in the Journal Citation Reports.

The **impact factor (IF)** is a simple straightforward calculation to find the frequency with which the common average article in an exceedingly journal has been cited in aspecific year. It is used to measure the rank of a journal by calculating the number of times the article is cited. The calculation relies on two consecutive years and involves dividing variety of times the articles were cited by the entire number of articles that are citable. Impact factor is calculated when finishing a minimum of three years of publication. For this reason, journal **IF** cannot be calculated for brand spanking new journals. The journal with the best **IF** is that the one that revealed the foremost usually cited articles over a period of two years. The **IF** doesn't apply to individual articles or individual scientists, it applies solely to journals.

VI. EIGEN FACTOR SCORE

The Eigenfactor Score evolved from the Metrics Eigenfactor Project in 2008, a bibliometric research conducted by Prof Carl Bergstrom. The Eigenfactor Score measures the amount of times the articles from the journal printed within the past five years are cited in every Journal Citation Report (JCR) year.

Eigenfactor Score is largely a magnitude relation of amount of citations to total number of articles. It eliminates self-citations. Any reference from one article in a journal to a different article from an equivalent journal isn't counted.

h-index

The **h-index** is a numerical indicator for the productivity and influence of a pursuit research work. It absolutely was invented by Jorge Hirsch in 2005, who formed a numerical indication for the contribution in research should make within the individual domain.

The **h-index** is outlined because the most maximum value of h such that the author has published h papers that every paper has been cited a minimum of h time. This index works properly just for comparison the work of person within the same domain field.

g-index

The **g-index** was projected by Leo Egghe. It's an associate improvement to the h-index. The **g-index** is calculated to support the distribution of citations received by a researcher's publication, specified for a group of articles in a hierarchal decreasing order of the amount of citations that they need to be received. The **g-index** is the largest distinctive range specified the highest g articles received along with it, has a minimum of g to the power 2 numbers of citations.

m-index

The **m-index** is outlined as h/n , where n is total range of years from the primary published revealed paper of the scientist; additionally, referred to as m-quotient. **m-index** is another variant of the h-index that displays h-index of the journal per annum since its initial publication. The m-index inherently assumes unbroken research analysis activity since the primary publication.

i10-index

i10-index was created by Google Scholar in Gregorian calendar month 2011 and it is utilized in Google Scholar's My Citations feature. **i10-index** refers to the amount of publications that has a minimum of ten citations. **i10-index** will give you the count of your online published article's citations and how many were cited by other authors for more than 10 times. If the published article has been referred by more than 10 authors and citations in their research articles infers that the published article is having a separate core value as far as the quality of article metrics is concerned. This straightforward simple measure is employed solely by Google Scholar.

h5-index

The **h5-index** is formed by Google Scholar, and is just like the h-index. The largest and important number h such that h articles revealed or published within the past five years, have got each a minimum of h citations. Thus, associate degree **h5-index** of sixty means the journal has revealed sixty articles within the past five years which each have sixty or additional citations.

h5-median

An h5-median relies on h5-index, however here it measures the median (or middle) worth value of the citations, that's for h variety of citations.

SNIP

Source Normalized Impact per Paper (SNIP) is one of the advanced metrics that essentially helps in numeration of field-specific variations in citation practices. Its operation is modelled by scruting every journal's citations per publication with the citation potential of its specific field; it's outlined because the set of publications citing that

journal. SNIP thence measures discourse citation impact and allows for direct comparison of journals in several subject fields, since the worth of one citation is bigger for journals in their individual fields wherever citations unlikely, and the other way around. SNIP is calculated annually by knowledge and is freely out there at Scopus.

VII. VARIOUS REVIEW METHOD

The submitted articles in any journal is reviewed by an article board of subject consultants who review, and value submitted articles before accepting them for publication. Submitted articles are evaluated by victimization criteria which incorporates excellence, novelty and significance of the research analysis or ideas. To shield and maintain the standard of content by which they publish journals using this method. All the members of the editorial board are listed at the start of every journal issue. If you're looking for scholarly bookish or peer-reviewed articles in a database, then you will be able to limit your results to peer-reviewed articles. We will additionally seek for journal title in Ulrichsweb, which incorporates basic data concerning every publication, together with whether or not it's peer-reviewed or refereed. There are primarily 2 kinds of peer review that must be understood: closed review and open review.

Closed peer review is a system where the identities of the reviewers aren't disclosed within the journal or to authors, and therefore the identities of authors might not be disclosed, throughout the review method to the reviewers. The reviewers will obtain the authors once publication.

Closed review works in 3 ways: singleblind, doubleblind and tripleblind.

Single blind review works by revealing the names of authors to reviewers whereas author has no plan regarding the names of reviewers. In double blind, reviewers and author don't grasp one another. In triple blind, reviewers, author and handling authors all 3 are anonymous to each one in their group. It's solely the Journal Manager who is aware of all the identities.

Open peer review operates in an additional clear manner for peer reviewer. It identifies authors and reviewers who are reciprocally disclosed. This review methodology is progressively turning into standard and is commonly applied by open access journals.

Another most necessary form of review is post publication review. In contrast to the previous publication reviews, where peer-review takes place before publication, post-publication uses associate 'open identity' principle. In this, all reviewers submit their feedback publicly, underneath their name and anyone visiting the article page will see all peer review reports, names and comments and be a part of a similar activity. This peer review follows associate open and clear method, that aims to limit editorial bias whereas increasing the speed of publication.

VIII. OPEN ACCESS PUBLICATIONS

Most of the publishers have rights to articles in their journal. Any reader, who desires to access the article, should pay to acquire for accessing them. Anyone who desires to use this article information in any approach should get permission from the concerned involved publisher and infrequently need to pay an extra fee.

Although several researchers who access the required journals via their establishment assume it's free, but it is not. The establishment has typically been concerned in long negotiations round the value of their website license. Moreover, reprocess of such content is additionally restricted.

Paying for access to journals might be within the realm of print or business enterprise publishing, where providing articles to every reader needs the assembly of physical copies of articles. However, within the online community, where distribution is as wide because of the internet's reach, it hardly is sensible.

Open Access refers to resources that are freely available on the market for viewing and/or using of digital information online. Open access scholar literature is freed from charge and infrequently carries less restrictive copyrights and licensing barriers than historically published works, for each of the users and the authors. **Open Access** seeks to come back scholar publication to its original purpose: to unfold data and permit that data to be designed upon. Value barriers must not forestall any intellectual from obtaining access of the research analysis work they have.

IX. ADVANTAGES OF INDEXING

- The indexed journal gets higher visibility.
- Indexed journals get quality research papers from the authors.
- Journal impact issues gets increased.
- Improvises authority and importance of the journal in various subject discipline.
- It reflects journal's reputation.
- Indexing helps the citation impact per publication of institution, country, productivity etc., and thus enhances its productivity. This makes it a good tool for measuring the quality of research data.

Each indexing parameters discussed above have their limitations to mention a few:

In impact factor a small number of papers published in a journal may have received a large proportion of the citations. Citation practice depends very much on the subject area, along with the result that a high impact factor for one discipline may look extremely low in comparison with another. Also, while calculating impact factor, self-citations are not counted.

In impact issue a tiny low variety of papers printed in a very high journal might have received an outsized proportion of the citations. Citation implication depends considerably on the topic space, alongside the result that a high impact issue for one discipline might look very low compared with another. Also, while calculating impact factor, self-citations are not counted.

The h-index place newcomers at a drawback situation since each publication output and determined citation rates are going to be comparatively low. It's worth might not increase with an increase in citations. This indicator is predicated on long-run observations. Problem arises in finding relevant reference standards for comparison even in the same subject field.

The g-index is limited in discriminating power because it is defined to be integers. This means that several researchers may receive the same g-index although they have significantly different numbers of citations. The fact g-

index are integers and many authors may get the same g-index value, makes it difficult to differentiate performance. g-index is not a relevant indicator when evaluating a small group of authors. Self-citation in g-index is ignored and excluded.

The g-index is restricted in discriminating power as a result of it's outlined to be integers. This implies that many researchers could receive identical g-index though they need considerably totally different numbers of citations. The actual fact g-index are integers and lots of authors could get identical g-index price, makes it tough to differentiate performance. g-index isn't a relevant indicator once evaluating a little cluster of authors. Self-citation in g-index is ignored and excluded.

X. INDEXING STANDARDS

All academic indexes require journals to follow certain publishing standards. To meet basic indexing requirements journals should have:

- An International Standard Serial Number (ISSN)
- Digital Object Identifiers (DOIs)
- A copyright policy
- An established publishing schedules

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