

Where should I publish my scholarly research article?

Why to publish?

Research is essential to carry science forward by the way of innovations and dissemination of findings in the form of publications. Experiences and findings can be shared among scholars and people around the globe so that similar and new thoughts can be generated. Publications also help in knowledge building, improve one's curriculum vitae, academic and career advancement. They directly or indirectly enhance institute's reputation and gets financial benefit in form of grants.¹

Open-access journals

Open-access journals are scholarly journals that are available online to the reader "without financial, legal or technical barriers other than those inseparable from gaining access to the internet itself".² Some open-access journals are subsidized and are financed by an academic institution, academic association or a government agency. Most other are financed by payment of article processing fees from submitting authors, many typically available to the researcher by their institution or funding agency. Open-access journals may be considered as Journals entirely open-access, journals with all research articles or some research articles open-access (hybrid open-access journals), journals with delayed open-access (delayed open-access journals), journals with some articles open-access and the other delayed access, journals permitting self-archiving of articles. The publisher of an open-access journal is known as an "open-access publisher", and the process, "open-access publishing".

The core idea of open-access articles are freely available for everyone including readers and libraries without paying for an individual article or journal subscription fees. For authors publishing open-access can help to open up their research to wider readers. Ultimately, an increased number of readers can convert into an increased number of citations for the author. Open-access can help the scientists from developing countries to participate in the international research community arena. The single most disadvantage of open-access is the publication costs. It is the responsibility of authors- usually through their employer or research grant to cover publication costs. In times due to funding cuts, economic adversities, or non-availability of funds especially in the developing countries can discourage researchers from going open-access. Sometimes publishers may be encouraged to publish more number of articles, since a large portion of their revenue comes in from of publication fees. This may provide negative impact on overall quality.

Peer-review process

A scientific publication is considered scholarly if it is authored by academic or professional researchers and targeting at an academic or related audience. Before being considered for publication most scholarly articles are referred or peer-reviewed by experts in the same subject field. Thus an article usually undergoes an official editorial double blind process that involves review and approval by author's peer. Generally articles are evaluated by two anonymous independent

Volume 1 Issue 4 - 2014

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Received: July 26, 2014 | **Published:** July 28, 2014

assessors who are looking for originality, validity, and quality. The process of peer review seeks to maintain the quality and integrity of the content to a particular journal.

Indexing of journal

Indexation of a journal is considered as a reflection of its quality.³ Since 1879, Index Medicus had been considered as most comprehensive index of medical scientific research journal articles. Over the year, many other popular indexation services that are, Medline, PubMed, EMBASE, and SCOPUS etc. have been developed. There are also various regional and national versions of Index Medicus such as African Index Medicus, Index Medicus for Eastern Mediterranean Region; Western Pacific Region Index Medicus etc. are available.

A related issue Impact Factor (IF) is awarded to a journal, if it is indexed in Thompson Reuters Journal Citation Reports. In fact, not all journals indexed even in reputed Index Medicus/MEDLINE, PubMed, EMBASE etc. are indexed in Thompson Reuters Journal Citation Reports. Similarly, not all journals indexed in Thompson Reuters Journal Citation Reports have an IF, but are listed in Index Medicus/MEDLINE, PubMed, and EMBASE etc. This brings us some unanswerable questions like, which indexation is best and most valid? How to compare the quality of journals indexed in different indexation services? Are new indexation services equally relevant? In which indexation services a journal indexed would be considered as "indexed"? Medical Council of India (MCI) also recommends indexed publications for teaching faculty in medical colleges for promotion.³ What does it actually mean? These are some questions remains to be answered. Selection of high quality journal becomes a difficult decision for authors as there is no clarity on these issues.

Impact factor (IF)

Impact factor of an academic journal is a measure reflecting the average number of citations to recent articles published in a Thompson Reuters Journal Citation Reports indexed journal.⁴ It is frequently used as proxy for the relative importance of a journal within its field. Journal awarded with higher IF assumed to be more important than those with lower ones. The IF was first mentioned by Eugene Garfield the year 1955. In early 1960s, along with Irwing H Sher, Garfield⁵ created the journal IF to help select journals for the Science Citation Index (SCI). IFs are calculated yearly starting from

the year 1975 only for those journals that are indexed in Thompson Reuters Journal Citation Reports. A journal's IF is calculated basing on two elements: the numerator, which is the number of citations in the current year to any "citable items" published in a journal in the

previous two years, and the denominator, which is the number of "citable items" published in the same two years.⁵ For example, IF for 2013, which will be analysed and published in the year 2014, can be calculated using the equation below

$$IF = \frac{\text{Total number of citations in 2013 to all citable articles published in a journal in the year 2011 and 2012}}{\text{Total number of citable articles published in same journal in the year 2011 and 2012}}$$

Limitations of impact factor

Impact factor varies with academic disciplines or the number of citations in the field. Thus, IF cannot be compared between disciplines. Journals must be indexed in Thompson Reuters Journal Citation Reports database to get an IF value. A new journal with either new or existing volumes will receive an IF only after being indexed for three years. One highly cited article in a journal can stand next to many non-cited articles in that same journal, yet journal will receive a reasonable IF, whereas the real scientific impact of the whole journal may not be that high. In addition, reviewed journals or journals publishing more number of review articles are usually cited more frequently than the research ones, thereby resulting in higher IF. The reason for that review articles are interesting, easy to read and understand, thus are more utilized and cited.⁶ In order to increase journal's IF, some editors are modifying editorial policies to increase IF by maximizing numerator and minimizing the denominator. They are stressing upon more review articles to be published, than the original research articles, case reports etc.⁷ Some editors are also publishing potentially cited papers at the beginning of the year to give more time for citation. Sometimes they force authors to cite papers from their journals.⁸ Despite the large number of indexed journals, numerous periodicals are not interested in it or not chosen by Thompson Reuters Journal Citation Reports indexed journal.

H-Index

In response to limitations and misuse of IF, some initiatives for assessing research papers have been introduced. One such commonly used indicator is H-index, which measures the impact of an individual article rather than the whole journal. The H or Hirsch-index was suggested by Hirsch, a physicist at University of California, as a tool for determining theoretical physicists' relative quality.⁹ The index is based on the set of the scientist's most cited papers and the number citations that they have received in other publications. The high H-index means the author has a relatively high number of highly cited papers. The H-index grows as citations accumulate and thus it depends on the "academic age" of a researcher. Hirsch said it may be used as one measure, not as primary basis for evaluating people for awards or promotion.¹⁰

Conclusion

To conclude, the scholarly research manuscripts may be published

in peer-reviewed open-access journals. The journals may be indexed and abstracted in reputed databases like Index Medicus/MEDLINE, Pub med, EMBASE, and Science Citation Index etc. Publication fees are sometimes major limiting factor especially for low and middle-income countries. Thus, the journals which have no or low publication charges may be chosen. A journal with high impact factor may be considered for publication, but it should not be the sole criteria for selection.

Acknowledgments

None.

Conflicts of interest

Author declares that there is no conflict of interest.

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