Impact Factor: Indian Contest

Vishal R. Tandon, Annil Mahajan, Sudhaa Sharma, S K Gupta

Impact factor is an index based on the frequency with which a journal’s articles are cited in scientific publications, a marker of journal quality.(1) The impact factor of a journal reflects the frequency with which the journal’s articles are cited in the scientific literature. The impact factor for a journal is based on a three-year period, and can be considered to be the average number of times published papers are cited up to two years after publication. The impact factor 2008 for a journal would be calculated as follows

\[ \text{Impact factor 2008} = \frac{A}{B} \]

where

- \( A \) = the number of times articles published in 2006–7 were cited in indexed journals during 2008
- \( B \) = the number of articles, reviews, proceedings or notes published in 2006–7

**Merits** (1,2)

1. The use of impact factor as an index of journal quality relies on the theory that citation frequency accurately measures a journal’s importance to its end users.
2. It provides quantitative tools for ranking, evaluating, categorizing and comparing journals.
3. It eliminates some of the bias of such counts which favor large journals over small ones or frequently issued journals over less frequently issued ones and of older journals over newer ones. Particularly in the latter case such journals have a larger citable body of literature than smaller or younger journals.
4. There have been many innovative applications of journal impact factors. The most common involve market research for publishers and others.
5. It provides librarians and researchers a tool for the management of library journal collections.
6. In market research, the impact factor provides quantitative evidence for editors and publishers for positioning their journals in relation to the competition—especially others in the same subject category.
7. It may also serve to advertisers interested in evaluating the potential of a specific journal.
8. Perhaps the most important and recent use of impact is in the process of academic journal.
9. The impact factor can be used to provide a gross approximation of the prestige of journals in which individuals have been published.

**Limitations** (3,4)

1. Review articles generally are cited more frequently than typical research articles because they often serve as surrogates for earlier literature.
2. It is widely believed that method articles attract more citations than other types of articles.
3. The practice of self-citation can be considered at many levels, including author self-citation, journal self-citation, and subject category self-citation. This may increase the impact factor.
4. A title change affects the impact factor for two years after the change is made.
5. Different specialties exhibit different ranges of peak impact.
6. It does not distinguish between letters, reviews, or original research.
7. It has inadequate international coverage.
8. The coverage is very uneven.
9. Very few publications from languages other than English are included, and very few journals from the less-developed countries.
10. The number of citations to papers in a particular journal does not really directly measure the true quality of a journal, much less the scientific merit of the papers within it.

From the Editorial Team, J K Science, Journal of Medical Education and Research
Correspondence to: Dr Annil Mahajan, Editor in Chief - J K Science, Journal of Medical Education and Research

Vol. 9 No. 3, July-September 2007 107
11. It only reflects the intensity of publication or citation in that area and the current popularity of that particular topic, along with the availability of particular journals.

12. Journals with low circulation, regardless of the scientific merit of their contents, will never obtain high impact factors in an absolute sense.

13. By merely counting the frequency of citations per article and disregarding the prestige of the citing journals, the impact factor becomes merely a metric of popularity, not of prestige.

14. A journal can adopt editorial policies that increase its impact factor. These editorial policies may not solely involve improving the quality of published scientific work. Journals sometimes may publish a larger percentage of review articles. While many research articles remain uncited after 3 years, nearly all review articles receive at least one citation within three years of publication, therefore review articles can raise the impact factor of the journal.

15. Editorials in a journal do not count as publications. However, when published articles, often articles are cited, often from the same journal, those citations increase the citation count for the article.

16. An editor of a journal may encourage authors to cite articles from that journal in the papers they submit.

17. Many authors are biased to submit their research papers just on the basis of impact factor of a journal ignoring national journals and submitting only those research articles which have been rejected. This may worsen the situation for any local journals.

References


