



## Impact Factor

The impact factor was devised by 'Eugene Garfield', the founder of the '**Institute for Scientific Information**' (ISI), now part of '**Thomson Reuters**'. Impact factors are calculated yearly for those journals that are indexed in 'Thomson Reuters' '**Journal Citation Reports**' (JCR). JCR provides quantitative tools for evaluating, categorizing and comparing journals. The impact factor (IF) is a measure of average number of citations to the articles published in science and social science journals. It is a measure of the frequency with which the average article in a journal has been cited in a given period of time. The annual *JCR* impact factor is a ratio between citations and recent citable items published. The impact factor for a journal is calculated based on a three-year period and can be considered to be the average number of times published papers are cited upto two years after publication. In general high impact factor journals are recognized as the most influential as compared to the other journals published in the same field. The IF is used to compare different journals within a certain field. The 'Institute for Scientific Information' indexes more than 11,000 science and social science journals.

### A) Calculation of yearly impact factor based on three year period.

X=Total cites in 2009

Y= 2009 cites to articles published in 1907-08 (This is subset of X)

Z= Number of articles published in 1907-08

IF=Y/Z=2009 impact factor

### Actual Calculation of impact factor in 2009

Cites in 2009 to articles published in:

2008 = 456

2007 = 468

**Total = 924**

Number of articles published in:

2008 = 80

2007 = 74

**Total = 154**

Impact factor = cites to recent articles/number of recent articles =  $924/154=6.0$

### B) Calculation of five year impact factor

X= Citations in 2011 over the 2006-2010

Y= Articles published over the years 2006-2010

Z= X/Y = Five year impact factor

**(Source: ISI Web of Knowledge)**

The impact factor is useful in clarifying the significance of absolute (or total) citation frequencies. 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. There have been many innovative applications of journal impact factors.

1. It is important for market research for publishers and others.
2. This is an important tool for librarians, researchers and for the librarians.
3. It is also an important tool for researcher to select a reputed journal and publish in elderly and reputed journals.



4. The impact factor can be used to provide a gross approximation about the prestige of a journal.
5. It is also a tool for sensible use and quote of data with proper care in the journals.

In general authors should keep in mind that

1. Impact factor can be calculated after completing the minimum of 3 years of publication.
2. Journal Impact Factor will be a quotient factor only and will not be a quality factor.
3. Journal Impact Factor will not be related to quality of content and quality of peer review.
4. Journal which publishes more review articles will get highest impact factors.
5. The impact factor is highly discipline dependent.
6. The impact factor could not be reproduced in an independent audit.
7. The impact factor refers to the average number of citations per paper.
8. Counting citations may be independent of the real 'impact' of the work among investigators and scientific communities.
9. Self citations and purposeful addition of the same journal article with the favorable editorial policies may cause the journals or publishers to be not considered for the evaluation of the impact factor.
10. The IF may be incorrectly applied to evaluate the significance of an individual publication or to evaluate an individual researcher.
11. A title change affects the impact factor for two years after a change is made. The old and new titles are not unified unless the titles are in the same position alphabetically.

For details authors are requested to visit

[http://thomsonreuters.com/products\\_services/science/free/essays/impact\\_factor](http://thomsonreuters.com/products_services/science/free/essays/impact_factor)

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