Reviewer's report

Title: The level of non-citation of articles within a journal as a measure of quality

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Reviewer: Martin Frank

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General
The authors Weale, Bailey, and Lear, have attempted to convince us that the level of non-citation of articles within a journal might serve as a better measure of journal quality than the impact factor. Unfortunately, their conclusion that “the measure of non-citation practices is probably no more valid than impact factor for comparing journals between fields” suggests that this paper contributes little to the discussion of how best to measure the quality of journals. It has been acknowledged by Eugene Garfield, and expanded upon by others, that impact factors are a poor measure of journal quality. Citations in the Impact Factor calculation includes citations derived from “non-source” items resulting in a higher impact factor for journals that publish abstracts, editorials, letters and news items. It is also well known that the inclusion of reviews in a journal can increase the impact factor because they tend to receive more citations than general research articles, something that has also been demonstrated in this article.

In attempting to make non-citation rates a better indicator of journal quality, the authors do demonstrate a negative correlation between impact factor and non-citation rate. Unfortunately, this is not unexpected since readers and authors tend to read and cite articles from high impact journals to a greater degree than low impact journals. In addition, many of the low impact journals are products of commercial publishers with higher subscription prices, making them less likely to be found in institutional libraries. Both the impact factor and non-citation rates are a function of the number of eyes that actually see the article.

The authors suggest that the impact factor should represent the median number of citations to articles, not the mean. I would strongly urge them to undertake the study since successful demonstration might encourage ISI to include that measure in their Journal Citation Reports. The authors also suggest that “it may be most appropriate to use the level of non-citation of original articles as the measure of a journal’s quality.” Instead of speculating, I would urge the authors to do the study and incorporate it into this paper.

The bottom line is as stated by the authors, “articles are, of course, best assessed by reading them.” The reason being that even bad articles get cited and if they are outright wrong, they are likely to get numerous citations as others seek to disprove or rebut the articles findings. Indeed, as the authors note, citation of an article may be defined by the utility of the work to another author, not its quality. It is for that reason methods papers generally are highly cited.

One of the biggest problems with the use of impact factors as a measure of quality and the use of non-citation of articles as defined in this manuscript is that both use a two-year citation window. It fails to recognize that many papers are useful to others well beyond their initial first or second year of publication. In many fields, articles are cited for many years after the first two years, often times receiving a spike of citation as new discoveries are published in similar or related fields. It is for that reason that ISI and bibliometricians should be exploring other measures of quality and utility that take into account the citation half-life of an article.
Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Reject because too small an advance to publish in any journal

**Level of interest:** Too insignificant to warrant publication in any journal

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

None