

Peer Review

Review of: "Evaluation of Indonesia's Scientific Publication Performance: Quantity, Quality, Open Access, and Comparison with ASEAN Countries"

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Comment 1. Page 6. Citations can be amplified by relational friendship, self-proceeding, and network effects. They can't be concluded as exclusively or dominantly linked to quality levels of published articles. Links between citation and quality levels of published articles remain partial because they are shared between attractive articles with high quality on one hand, and articles benefiting from induced citations without particular quality distinction on the other hand. Moreover, many articles with high quality remain few or not cited because they are highly specialized, and/or their authors are fully invested in scientific research, making them not find time for relational development or for the promotion of their published papers. These bibliometric trends provide different dimensions for further discussion of manuscript results (Conclusions and recommendations).

Comment 2. Page 7. The points of the scatter plot in **Figure 2** should be labelled by corresponding countries to make it readable.

Comment 3. Page 8. A positive correlation between the number of articles and that of open access could be indicative of two points concerning a quantitative strategy: (i) More financial resources to pay for open access; (ii) a trend to publish more and to impact more through more citations favoured by open access policies. However, these quantitative-quantitative criteria and associated strategies don't inform about the quality of published articles. The citation level is **not sufficient** to conclude about manuscript quality or the scientific reputation of a (co-)author. This additional point could be presented to enrich the discussion (Extension of the section Conclusions and recommendations).

Comment 4. Page 8. The ability/possibility to publish more can be linked to two opposite factors: (i) higher competence of some authors; (ii) a wider relational network for another category of authors. What is dominant among these two factors? The first factor (i) is of a neutral aspect and doesn't induce citations, whereas the second one (ii) (relational network) can provoke citations. These opposite aspects should be discussed in the manuscript.

Comment 5. Pages 7, 9 (Table 1). An average of 298 citations per article among 12,432 published articles means that the authors of Singapore have at least 298 articles cited 298 times, leading to H-index values of 298 (!). Such high values are only associated with the most publishing and cited authors at the world scale. An alternative (more eventual) hypothesis explaining the average value of 298 could be due to some very highly cited articles (> 5000 or > 10000 times) that influence the average citation, leading to a risk of misinterpretation: for instance, if five manuscripts are cited 2, 2, 2, 2, and 102 times, the average citation per article will be equal to 22, which doesn't reflect reality because of the effect of the outlier value 102. To better compare and interpret citations per author, the use of the median (instead of the mean) would be an appropriate way. The mean is a sensitive parameter to outliers, whereas the median is not sensitive and can provide more interpretable results. Outlier analysis could be recommended for data homogenization and preliminary classification, leading to more interpretable results.

Comment 6. Page 11. Comparison between countries can't be reliable and efficiently interpretable if the whole dataset merges both manuscripts published in national and international journals. Preliminary data classification should be made for homogenization before statistical comparisons. Two comparison analyses could be separately made: at national and international levels. Working on homogeneous datasets increases the quality of results given by statistical analysis. For information, publication fields also represent a key classification criterion for data homogenization a priori.

Declarations

Potential competing interests: No potential competing interests to declare.