Qeios

Peer Review

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

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

Isbatudinia and Passarella

This study uses data from Scilit to examine Indonesia's research output, including open access content and average citations, and compares it to other ASEAN countries, as well as others. The data show Indonesia publishes lots of (open access) articles, relative to its ASEAN neighbours, but they have lower quality. The study suggests some ways forward for Indonesia to address this.

The paper is logically ordered and well-written, but requires additional clarifications and additions to aid its narrative and readers' understanding.

Page 7. Main comment – using average citations per article is not a very useful metric and comes with a lot of caveats. Citations vary from field to field (e.g., more in life sciences, less in social sciences). So, a country with a large life science output will have more citations than one with a large social science output – the comparison is unfair. Citation counts should be normalised by field, year, and publication type (e.g., article) [see Category Normalised Citation Impact or Field Weighted Citation Impact] and potentially other factors. Average citations may be reflective of the wider situation, but it cannot be used to draw in-depth insights.

Page 1. "The results confirm that Indonesia excels in publication quantity (ranked 5th globally)." This seems dubious. Please double-check this. Figure 2 and Table 1 show Indonesia has around 54,000 articles

and does therefore appear to be the fifth largest. However, many G7 and other G20 countries have a far larger output than Indonesia. This potentially raises issues about the data quality of Scilit.

Page 2. Define ASEAN to aid readers' understanding.

Page 2. "Countries such as Singapore and Malaysia, for example, have shown high achievements in terms of publication quality, despite having smaller quantities than Indonesia." Suggested to look at World Bank or similar data for researchers per million population to demonstrate how this compares to general populations, as well as GERD values.

1.1 Literature review. Suggested reading for further context: Global Research Report – South and Southeast Asia https://clarivate.com/academia-government/wp-content/uploads/sites/3/dlm_uploads/ISI_Global_Research-Report-5_v10_RGB_SP.pdf

Page 3. "Funded articles receive more citations than unfunded ones." All articles are 'funded' in some sense. Please be more explicit about what is meant here by 'funded'.

Page 5. Open access can take many forms (gold, green, etc.). Please explicitly state what is meant by open access in this work.

Figure 1. It would be useful to highlight where some other comparator countries are (outside of ASEAN) in this distribution for context.

Figure 2. Include commas on values on the x-axis (e.g., 150,000) or present the scale in 100 thousands (e.g., 150k).

Figure 2. Lots of countries appear to have no articles but very high citations per article. This looks like a scale issue, but please check.

Page 7. The text mentions certain countries and their average number of citations, but these are not reflected on the figure. Add markers to highlight these countries for clarity.

Page 8. "This means that countries that produce more scientific articles tend to also produce more OA and preprint articles." True, but proportionally they may not be high. E.g., the US and China may produce more OA articles than Singapore, but as a proportion of all their papers, it may be lower than Singapore. The values should be normalised to understand the context (OA ratio gives this and shows a negative relationship with total articles).

Figure 3. Please explicitly state if this correlation matrix considers all countries' output.

Table 1. 'Singapore' is incorrectly spelled.

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Table 1 and Figure 4. Avoid replicating data in tables/figures. Either have only tables or graphs showing one set of data.

Page 10. "Singapore is not only significantly ahead in terms of citations but also demonstrates much greater research quality and impact than other ASEAN countries." Can you provide any context as to why that might be the case?

Page 11. "Instead, this could signal that most OA publications in Indonesia may still be in journals with low visibility and reputation." If journal data is available for these OA publications, then this point can be analysed.

Page 12. "The study results indicate that Indonesia has achieved a high volume of scientific publications, ranked fifth globally." Again, please double-check this and the data quality in Scilit.

Page 12. "Further correlation analysis indicated a negative correlation between the OA ratio and average citations per article (r=-0.44)." What is this for just the ASEAN countries? Is it better or worse than the world?

Declarations

Potential competing interests: No potential competing interests to declare.