Policies of scholarly journal accreditation in Indonesia

Prakoso Bhairawa Putera1,2, Suryanto Suryanto1, Sinta Ningrum1, Ida Widianingsih1, Yan Rianto3

1Faculty of Social and Political Sciences, Universitas Padjadjaran, Bandung; 2Research Center for Science, Technology and Innovation Policy & Management, Indonesian Institute of Sciences, Jakarta Selatan; 3Deputy for Life Sciences, Indonesian Institute of Sciences, Jakarta Selatan, Indonesia

Introduction

It was known that there were 5,900 scientific journals in Indonesia in 2013. Those journals were grouped into three classes, namely non-accredited journals (5,579 titles), accredited journals (342 titles), and international journals (16 titles), and most journals are published by universities, faculties, or departments [1]. In June 2019, the number of scientific journals increased to more than 14,000. Among them, only a few journals are indexed in international databases. Up to 2019, there were 49 journals in Scopus, 63 in Web of Science master journal list, and 1,358 in Directory of Open Access Journals (DOAJ) [2]. In July 2021, the number of journals in SCImago (https://www.scimagojr.com), which included Scopus journals, was 69; in Web of Science Master Journal List, 88; and in DOAJ, 1,867. It showed that there had been a remarkable improvement in the journal qualities. It may be possible not only by the editors' and researchers' devotion to the journals but also by the national policies of scholarly journal accreditation in Indonesia. Also, the Indonesian government has provided some support for journal publishing. It is necessary to review the scholarly journal accreditation policies to improve its system. This essay aims to explain the history of policies of scholarly journal accreditation, to clarify the current national accreditation policies, and to show trends in the journal accreditation in Indonesia

History of Policies of Scholarly Journal Accreditation in Indonesia

Since 1975, the Indonesian Institute of Sciences (LIPI) has evaluated and monitored scientific journals and other forms of publications in Indonesia. The assessment emphasizes the content and substance of publications. This framework recognized three categories of publications: scientific, semi-scientific, popular, and a mixture thereof [3]. However, the development of this straightforward assessment framework was not accompanied by success in raising the prestige of journals or establishing a tradition of high-quality publications. Therefore, in the early 1990s, the Directorate of Research Development and Community Service–Directorate General of Higher Education formed a team to examine the situation of about 300 scientific journals.
Policies of scholarly journal accreditation in Indonesia

Currently, Indonesia has a national accreditation policy for scientific journals. The purpose of this arrangement is to increase the relevance, quantity, and quality of scientific publications of Indonesian scientists to support the nation's competitiveness at the international level. Accreditation in this regulation plays the role of an assessment activity for quality assurance of scholarly journals through objective manuscript screening, appropriate management, and timely publication of scholarly journals [5].

A proposal for accreditation of a scholarly journal is handled by considering whether the scholarly journal fulfilled the following conditions: 1) It contains articles that significantly advance science, technology, and/or art based on the results of research, engineering, and/or studies containing original findings and/or thoughts without plagiarism; 2) presents a qualified journal editorial board in accordance with the field of science that represents the fields of science, technology, and/or art; 3) involves qualified peer reviewers in accordance with the journal's scientific field from various universities and/or research and development agencies and different industries from within and/or abroad who screen manuscripts objectively; 4) utilizes Indonesian and/or an official language of the United Nations; 5) maintains consistency of writing style and appearance format; 6) is managed and published electronically through information and communication technology networks; 7) is published according to a schedule; and 8) has an e-ISSN (electronic international standard serial number) and a DOI (digital object identifier) [6].

Meanwhile, for the evaluation of accreditation, eight elements of the scholarly journal accreditation assessment are used, namely: the name of the scholarly journal/journal title, aims, and scope; publishing institutions/publisher; journal editing and management/editorial and journal management; article substance/quality of articles; writing style; appearance/format of PDFs and the e-journal; periodicity/regularity; and dissemination (Table 2) [3].

Furthermore, journal managers are eligible to propose accreditation of scholarly journals to the Director General of Research and Development Strengthening, at the Ministry of Research, Technology, and Higher Education. Proposals are made through the submission system for accreditation of scientific periodicals on the Arjuna website at the address http://arjuna.ristekbrin.go.id/ [7].

The results of the accreditation of scholarly journals are divided into six groups, as follows: rank 1 (score: 85–100), rank 2 (score: 70–85), rank 3 (score: 60–70), rank 4 (score: 50–60), rank 5 (score: 40–50), and rank 6 (score: 30–40). Each scholarly journal's accreditation rating is evaluated periodically (at least once every 5 years).

The Scholarly Journal Accreditation Team for evaluating scholarly journals was formed and determined by the Director-General of Research and Development Strengthening at the Ministry of Research, Technology, and Higher Education. The team members come from institutions that foster careers of lecturers, institutions that foster careers of researchers, institutions that foster careers of engineers, and career development agencies for other functional positions, comprising a total of seven people. The Scholarly Journals Accreditation Team evaluates journals based on predetermined assessment indicators (Table 2) [3].
Table 1. Dynamics of scholarly journal accreditation policies in Indonesia

| Year | Regulatory | Institution responsible for scholarly journal accreditation | Scope of scholarly journal accreditation |
|------|------------|-------------------------------------------------------------|------------------------------------------|
| 1975 | Unknown    | Indonesian Institute of Sciences                            | Scientific magazines/journals published within the scope of R&D institutions |
| 2000 | Guidelines for Submission of Proposals for Accreditation of Scholarly Journals in 2000 | Directorate of Research Development and Community Service, Directorate General of Higher Education, Ministry of National Education and National Accreditation Board | Scientific magazines/journals published within the scope of higher education |
| 2005 | Regulation of the Head of the Indonesian Institute of Sciences Number 01/E/2005 concerning Guidelines for Accreditation of Scientific Magazines/Journals | Indonesian Institute of Sciences | Scientific magazines/journals published within the scope of R&D institutions |
| 2006 | Decree of the Director-General of Higher Education, Ministry of National Education Number 11/DIKTI/Kep/2006 concerning Guidelines for Accreditation of Scientific Magazines/Journals | Director General of Higher Education, Ministry of National Education | Scientific magazines/journals published within the scope of higher education |
| 2011 | Regulation of the Head of the Indonesian Institute of Sciences Number 04/DIKTI/Kep/2011 concerning Guidelines for Accreditation of Scientific Magazines/Journals | Indonesian Institute of Sciences | Scientific magazines/journals published within the scope of higher education |
| 2014 | Regulation of the Head of the Indonesian Institute of Sciences Number 3 of 2014 concerning Guidelines for Accreditation of Scientific Periodicals | Indonesian Institute of Sciences | Scientific magazines/journals published within the scope of higher education |
| 2018 | Regulation of the Minister of Research, Technology and Higher Education Number 9 of 2018 concerning Accreditation of Scientific Journals | Ministry of Research, Technology and Higher Education | Scientific magazines/journals published within the scope of R&D institutions and universities |

(Continued to the next page)
### Elements of scholarly journal accreditation assessment

| 1975 | 2000 | 2005 | 2006 | 2011 | 2014 | 2018 |
|------|------|------|------|------|------|------|
| Content and substance of the publication | Name of periodical (5), institutional publisher (5), editor (30), stability of appearance (10), style of writing (10), substance (25), periodicity (12), and post-publishing obligations (7) | Name of periodical (5), institutional publisher (13), editor/editorial board (12), stability of appearance (9), writing style (11), substance of content (36), periodicity (10), and post-publishing obligations (3) | Substance (36), editor and reviewer (17), writing style (15), publishing institution (5), editing (21), appearance (9), writing style (11), substance of content (36), periodicity (10), and post-publishing obligations (3) | Name of scientific periodicals (3), institutional publishers (4), editing and management of publications (17), article substance (39), writing style (12), appearance (8), periodicity (6), and dissemination (11) | Name of scientific periodicals (3), institutional publishers (4), editing and management of publications (17), article substance (39), writing style (12), appearance (8), periodicity (6), and dissemination (11) | Name of scholarly journals (3), publishing institution (4), journal editing and management (17), article substance (39), writing style (12), appearance (8), periodicity (6), and dissemination (11) |
| Scholarly journal accreditation classification | Scientific, semi-popular, and popular science, as well as a mixture of the three | Accredited fair (C) 60–69; accredited good (B) 70–79; and accredited very good (A) 80–100 | Nationally accredited scientific periodical rank A (> 85), nationally accredited scientific magazines/ journals (> 70), unaccredited scientific magazines/ journals ( < 70) | Nationally accredited scientific periodical rank A (> 85), nationally accredited scientific magazines/ journals ( > 70) | Nationally accredited scientific periodical rank A (> 85), nationally accredited scientific magazines/ journals ( > 70) | Sinta 1 accreditation (85 ≤ n ≤ 100); Sinta 2 accreditation (70 ≤ n < 85); Sinta 3 accreditation (60 ≤ n < 70); Sinta 4 accreditation (50 ≤ n < 60); Sinta 5 accreditation (40 ≤ n < 50); and Sinta 6 accreditation (30 ≤ n < 40) |
Trends in the Accreditation of Scholarly Journals

To date, as of July 2021, there are 5,990 accredited scholarly journals in Indonesia [8]. The trend of adding accredited scholarly journals in Indonesia can be seen in Fig. 1 [9]. These accredited scholarly journals are published by 1,396 institutions in 343 cities throughout Indonesia. The accredited scholarly journals in Indonesia are dominated by the fields of education (746 journals), social sciences (283 journals), law (242 journals), business, management, and accounting (223 journals), and agricultural and biological sciences (145 journals) [8].

The top three regions of Indonesia in terms of the distribution of accredited scholarly journals are East Java Province, with 1,008 accredited journals; Central Java, with 723 accredited journals; and Special Capital District of Jakarta/Daerah Khusus Ibukota Jakarta Province, with 660 accredited journals. The institution that manages the most accredited journals is Semarang State University, which manages 120 accredited journals, followed by Diponegoro University, which manages 82 accredited journals, and Ganesha Education University, which manages 81 accredited journals. For the categorization of the ranking evaluation results, a recent report found that 97 journals had a rank of 1; 910 journals had a rank of 2; 1,165 journals had a rank of 3; 1,991 journals had a rank of 4; 1,598 journals had a rank of 5; and 229 journals had a rank of 6 [10].

In Indonesia, the repository system for scientific publications is openly accessible through two platforms: the National Scientific Repository (RIN) and, as a real-time option, http://rin.lipi.go.id/. The RIN is used to store, preserve, cite, analyze, and share research data, and acts as an online medium for managing, storing and sharing research data [11] that is accessed through the “Digital Referral Guard” (GARUDA; https://garuda.ristekbrin.go.id/). GARUDA currently provides 1,404,765 articles, originating from 2,269 publishers, 12,184 journals, and 160 organizations that hold conferences [12]. Accredited scholarly journals are deposited in the national repository system and can be accessed via https://sinta.ristekbrin.go.id/journals.

Conclusion

The government of Indonesia has made efforts to develop policies for the accreditation of scholarly journals to provide quality references in Indonesia. Official accreditation of scholarly journals in Indonesia began in 1975. Up to 2017, there was a dualistic management of accreditation. It was only in 2018 that the accreditation system for scholarly journals was integrated into the Ministry of Research, Technology and Higher Education. The government of Indonesia additionally provides a repository system, which is openly accessible through http://rin.lipi.go.id, https://garuda.ristekbrin.go.id/, and https://sinta.ristekbrin.go.id/journals. For the evaluation of accreditation, eight elements are used. The results of the accreditation classified scholarly journals into six groups according to the evaluation score. The number of accredited journals has increased year by year, and it reached 5,990 in July 2021 from 333 in 2017. There may be a continuous increase in the number of accredited journals in the future. The above accreditation system is believed to increase the article quality and style and format of scholarly journals in Indonesia.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.
Funding

The authors received no financial support for this study.

References

1. Wiryawan KG. The current status of science journals in Indonesia. Sci Ed 2014;1:71-5. https://doi.org/10.6087/kcse.2014.1.71
2. Wiryawan KG. Establishment of the Indonesian Association of Scientific Journal Editors. Sci Ed 2019;6:148-50. https://doi.org/10.6087/kcse.176
3. Ministry of Research, Technology, and Higher Education. Scholarly journals accreditation guidelines of 2018. Jakarta: Ministry of Research, Technology, and Higher Education; 2018.
4. Indonesian Institute of Sciences; Indonesian Editing Association; Office of the Ministry of State for Research and Technology. Instrument for evaluation of scientific periodical accreditation. Jakarta: Office of the Minister of State for Research and Technology; 2000.
5. Regulation of the Ministry of Research, Technology and Higher Education of the Republic of Indonesia Number 9 of 2018 concerning Accreditation of Scholarly Journals [Internet]. Jakarta: Ministry of Research, Technology and Higher Education of the Republic of Indonesia; 2018 [cited 2021 Jul 5]. Available from: https://peraturan.bpk.go.id/Home/Details/140402/permen-ristekdikti-no-9-tahun-2018
6. Lukman L, Dimyati M, Rianto Y, et al. Proposal of the S-score for measuring the performance of researchers, institutions, and journals in Indonesia. Sci Ed 2018;5:135-41. https://doi.org/10.6087/kcse.138
7. Ministry of Research and Technology; National Agency for Research and Innovation. Guidelines for National Journal Accreditation (Arjuna). Jakarta: Ministry of Research and Technology; National Research and Innovation Agency; 2019.
8. Ministry of Research and Technology; National Agency for Research and Innovation. Journals statistics [Internet]. Sinta Indonesia; 2021 [cited 2021 Jul 6]. Available from: https://sinta.ristekbrin.go.id/journals/analyze
9. Ministry of Research and Technology; National Agency for Research and Innovation. Final report of Head of Sub-Directorate for Scientific Journal Facilitation. Jakarta: Ministry of Research and Technology; National Research and Innovation Agency; 2020.
10. Ministry of Research and Technology; National Agency for Research and Innovation. Accredited journal ranking results [Internet]. Sinta Indonesia; 2021 [cited 2021 Jul 6]. Available from: https://sinta.ristekbrin.go.id/journals
11. National Scientific Repository; Indonesian Institute of Sciences. RIN Dataverse [Internet]. National Scientific Repository; 2021 [cited 2021 Jul 6]. Available from: https://data.lipi.go.id/
12. Ministry of Research and Technology; National Agency for Research and Innovation. Garda Rujukan Digital [Internet]. Jakarta: Ministry of Research and Technology; National Agency for Research and Innovation; 2018 [cited 2021 Jul 6]. Available from: https://garuda.ristekbrin.go.id/