

The Improvement of Open Journal System for Successful National Journal Accreditation in Indonesia

Arta Moro Sundjaja, Yessi Handoyono

Abstract: *This paper aims to evaluate and propose improvements to the Open Journal System (OJS) based journal management to support self-evaluation of national journal accreditation. Data collection methods used were literature research, observation, documentation, and FGD (Focus Group Discussion). The evaluation method used Ms. Excel 2010 to process the empirical data into tables and graphs. Speech notes feature on Android device to change the voice (interview result) into a text. The frameworks used were the instrument of DIKTI scientific journal accreditation. The results are an audit report on the self-evaluation of national journal accreditation in BBR (Binus Business Review) journal volume 7 number 2. The audit report consists of a quality management system, user manual of OJS, and design of the journal management process using OJS.*

Index Terms: *Audit Report, Indonesian Journal Accreditation, Open Journal System Adoption, Process Improvement.*

I. INTRODUCTION

The development of the company is increasingly tight and demands the company to maintain its company's survival. Information system capabilities offer automation for the management so it will help the business process performance. The operational audits that play a role in improving effectiveness, efficiency, and economization [1].

In the implementation of the operational audit, there are also some challenges, such as time, auditor skills, and cost. Time is a challenge in the audit process because it is expected to produce results quickly or on time, so time becomes one of the challenges that affect the implementation of operational audits [2]. The auditor's expertise is also a challenge wherein the operational audit process requires an auditor who has expertise not only concerning auditing but also in business [3]. In terms of cost, management requires results where the audit cost should be efficient. Therefore, the more detailed the auditor towards a problem, especially small problems, may incur costs if investigated further. The impact of the application of QAU (Quality Assurance Unit) is the increasing number of published research papers, increased customer satisfaction and the level/rating of universities or educational institutions, and increase the effectiveness of meetings on decisions to be made with the shorter time of the

meeting [4]. Each institution of higher education must conduct research activities following Article 20 of Law No. 20 of 2003 on National Education System, which explicitly states that higher education institutions are obliged to conduct research [5]. Directorate General of Higher Education (DIKTI) is an institution under the Ministry of Education, which has the primary duty of handling and fostering public and private universities in the field of academic, research, and community service. In the publication of scientific work, DIKTI classified it into two forms: print and electronic-based. Scientists and publishers in Indonesia are required to understand the changes of the printed periodical scientific publication into electronic (e-journal). Through e-journal, scientific work can be discovered in the national and international level. Based on Head of LIPI Regulation number 3 of 2014 and Directorate General of Higher Education Regulation No. 1 of 2014 on accreditation of periodical scientific publication that regulates journal accreditation previously implemented for printed journals beginning in 2015 and effective on April 1, 2016, will be applied for journals published in electronic [6].

Management and publishing of journals are currently online using an app created by PKP (Public Knowledge Project) called OJS (Open Journals System). Utilization of OJS can improve the quality and quantity of scientific journals because the publication of journals through several innovations and policies that is more transparent to increase the indexing. The periodical scientific accreditation can be submitted online by using the National Journal Accreditation System (Arjuna), which can be accessed at <http://arjuna.dikti.go.id/>. By the end of 2015, the LIPI Scientific Documentation and Information Center (PDII) data shows there are more than 29.496 periodical publications that get ISSN (International Standard of Serial Number), and most of them are published in electronic form. Based on DIKTI data by the end of 2015, there are 172 accredited journals by DIKTI, 190 accredited journals by LIPI, and 23 international indexed journals (Scopus) [7]. DIKTI continues to improve the accessibility, visibility, management standards, and quality of periodical publications nationally, especially with the Electronic periodical publications (e-journal). Accreditation is done two times a year. The requirement of accreditation of periodical scientific publication must have ISSN in electronic and or printed form with the periodical publication must be scientific [8].

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Accreditation applies only to periodical scientific publications that have been issued for at least two consecutive years, starting from the date or month of submission of the accreditation and stating the terms of publication ethics in the journal website pages [8]. Also, in the case of issuance only for journals with a frequency of publication at least two times a year, with a minimum of 5 articles.

Binus University, as a private university upholding Tri Dharma in education, has a special division dealing with the research called RTTO (Research and Technology Transfer Office). In developing a journal to achieve national journal accreditation, RTTO uses an e-journal implementation called open journal system (OJS) which can be accessed at <http://journal.binus.ac.id/>. The OJS system is open source, allowing research division in universities to adjust the needs of journal management including design, layout, content, and more. There is OJS usage guidance on the dictates of DIKTI in a general view. The usage guidance consists of the implementation, the editors, authors, and reviewers require the guidance of each OJS. The use of OJS system in the management of journals has now been implemented in four journals managed by RTTO namely *Lingua Cultura*, *BBR* (Binus Business Review), *CommIT* (Communication and Information Technology), and *The Winners*. The *BBR* Journal (Binus Business Review) is a journal prepared for national accreditation. *BBR* is an international journal published three times a year, namely in May, August, and November. The School of Business Management and the Faculty of Economics and Communications manage the contents of the journal. The contents of the *BBR* journal contain ideas, concepts, new theories, or the development of science in Economics, Business, Management, Accounting, Finance, Tourism, and Management.

In this study, there is an urgency to develop the case study of evaluation of journal management implementation and operational quality to support self-evaluation of national journal accreditation. The case study will describe how to improve the quality of the published manuscript by identifying the existing weaknesses and can produce recommendations to achieve national journal accreditation.

II. METHODS

The research method used explorative qualitative research with case study method [9], [10]. The data collection methodology was through literature research (Library Research) and field research that includes observation (direct observation), documentation, and FGD [9], [11], [12]. The evaluation methodology used eight audit instruments, according to DIKTI (Directorate General of Higher Education) [6].

The literature research was conducted by studying scientific books, journals, dictates, papers (workshop), and proceeding through the library, Google, Google Scholar, and diktat DIKTI (Directorate General of Higher Education). Keywords used include operational audit, quality management system audit/quality assurance system, accreditation of national journal, open journal system.

The interview involves publication section head, publication officer, language editor, desktop publisher,

publication technical staff, editor, reviewer, and authors on *Binus Business Review*. The research used a technique of structured and unstructured interview. Interviews were also conducted with the tool such as the recorder. Observations were made in the process of studying the manuscript using the open journal system and recording the results of observation using Ms. Excel 2013.

Researchers collected and analyzed the document to evaluate the performance of journal management following journal accreditation instruments. The researchers collected manuscripts submitted by authors, reviewed manuscripts, plagiarism documents, evaluation forms, content evaluation forms, and correspondence e-mails with authors, editors, and reviewers. Focus Group Discussion with publication section head, publication officer, language editor, desktop publisher, publication technical staff, and editor of *Binus Business Review* for decision-making related to journal marketing, script review and journal publishing.

III. RESULTS AND DISCUSSIONS

A nationally accredited journal when ranked A with a total score above 85 and ranked B with a total score of 70 to 85 based on the assessment from DIKTI (Directorate General of Higher Education). Journals earning a total score under 70 have non-accredited periodical scientific status. Eight audit instruments per DIKTI (Directorate General of Higher Education) become the element of assessments in the accreditation of national journal. The critical success factor of accreditation depends on the consistency of editing and layout, the peer review process, and the journal standing [13].

Based on the element of name assessment of the periodical scientific issue, *BBR* journal does not get the score because the naming is not specific and use the name of local institution/location. Suggestion for future improvements based on FGD (Forum Group Discussion) results with DIKTI representatives is to make *Binus Business Review* journal with all field of research refers to the management. In the publisher institutional element, Research and Technology Transfer Office manage *BBR* journal so that the conclusion of publishing institution is a professional, scientific organization in cooperation with university or research and development institute / Ministry / Non-Ministry.

In the editing element and management of publications there are six sub-elements, wherein the assessment of *BBR* journal there are four sub-elements with maximum value and two sub-elements that are not yet maximal namely the quality of editing of substance which is still categorized as good (Peer Reviewer helps to capture the script, giving notes, and necessary data improvements) and on the management of periodical scientific publishing still uses a combination of online and electronic mail. In the substance of the article, there are nine sub-elements where two sub-elements have obtained the maximum value and seven sub-elements with the average value.



The scope of the sciences get the minimum value because it is included in the anthology and the combination of various disciplines, according to the pioneer of science/originality of the work still contains articles with novelty / give sufficient scientific contributions, contribution to the progress of science is still in the apparent category, the primary source ration other than other sources at 40-80%, the degree of recency bibliography reference at 40-80%, and analysis and synthesis are in the sufficient category.

The element of writing style has the maximum value on nine sub-elements that exist. The BBR journal needs to maintain maximum value to maximize the accreditation process. In the element of the appearance of the six sub-elements, five sub-elements have been maximized and one sub-element with the average value that is on the number of pages per volume in the numbers of 201-499 pages. On the element of regularity, there are four sub-elements and have obtained the maximum value for each sub-element. In the dissemination of element, there are three sub-elements; in which two sub-elements have obtained the maximum value and one sub-element. Namely, the inclusion in international indexer is in the medium category.

Based on the self-evaluation of BBR (Binus Business Review) journal Volume 7 Number 2 using DIKTI audit instruments, the journal got 79 and passed the minimum score required to be accredited. Table 1 is the result of self-evaluation based on DIKTI audit instrument.

Table 1 The results of BBR journal evaluation based on audit instruments according to DIKTI

Assessment elements	Weight
Naming Periodic Scientific Publication	0
Publisher Institution	3
Editing and Management of Publication	15
Substance of Article	27
Writing Style	12
Article Layout	7
Issue Regularity	6
Dissemination	9
Total Score	79

Based on the data obtained from the FGD (Forum Group Discussion), observation and interviews with the parties concerned, it can be concluded that the results of BBR (Binus Business Review) Journal simulation Volume 7 Number 2 has reached rank B (Good). The success factors of BBR improvement are the successful implementation of e-mail and social media marketing to invite authors, editors, and peer-reviewers [14], [15]. Implementation of the Open Journal System to support the management of the BBR manuscripts helps archive the review of the manuscript. The role of editors and reviewers who have a record of accomplishment of research at the international level has helped to improve the quality of the published texts. The role of the journal secretariat in correspondence with editors, reviewers, and authors helps keep the manuscript published in time. The validity period of national accreditation is five years after it was set accredited A (> 85) and B (70-85). The results of evaluations showing the temporary value of one issue number in the BBR journal can provide an overview in maintaining, improving the quality, and improving the

existing deficiencies based on audit results by DIKTI instruments to be accredited nationally. The evaluation in measuring the quality is a preventive way to prevent failure of future journal accreditation. The current assessment will have a positive impact when the new improvement is conducted towards the indicators that are still not maximized. In fixing the existing deficiencies, it can be done with internal and external improvements to the parties involved.

IV. CONCLUSIONS

The evaluation of journal management based on audit instruments of DIKTI, in the Binus Business Review journal volume 7 number 2, get the value of 79, which is likely to be accredited. Journal management activities are well underway and produce some nationally accredited journals.

The management of the journal using the OJS system is still in the adaptation stage, and the use of user manuals that have been created with the research team will be prepared for socializing the use of OJS. The development of the OJS feature in rating automation will assist in monitoring the quality of the peer reviewer to improve journal quality. RTTO's publication division can maximize the full use of OJS through the socialization of OJS use to internal and external parties related to journal management processes. Improving the journal-publishing process to the result of evaluation per DIKTI generated by authors, quality management system to the result of the evaluation of the operational activity of publication division generated by authors, and updating the SOP and reviewing procedure periodically.

This study has several limitations that also provide a foundation for further research. First, the research design used explorative qualitative research to understand the phenomena of OJS adoption and national journal management. Second, the data collection method using focus group discussions and observation to explore OJS adoption and national journal management. Third, the informant used in this study was the Binus Business Review, editorial team.

Future research should examine the determinant factors of OJS adoption in Indonesia using a quantitative method. The data collection method can use questionnaire and distribute to the Indonesia Journal Editors.

REFERENCES

1. D. Pflueger, "Accounting for quality: on the relationship between accounting and quality improvement in healthcare," *BMC Health Serv. Res.*, vol. 15, no. 1, p. 178, 2015.
2. S. Ramamoorti, "Internal Auditing: History, Evolution, and Prospect," in *Research Opportunities in Internal Auditing*, Florida: The Institute of Internal Auditors Research Foundation, 2003, pp. 2-22.
3. P. D. Warren, J. Hannan, and C. P. Youngberg, "Internal Audit Leads the Way to Performance Improvement A White Paper," 2011.
4. T. Nyenya and B. Gabi, "The Impact of the Quality Assurance Unit on Quality Improvement in Zimbabwe Open University," *Int. J. Humanit. Soc. Sci. Educ.*, vol. 3, no. 2, pp. 88-96, 2016.
5. D. P. Nasional, "Undang Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional (The Republic of Indonesia Act No. 20, Year 2003 on National Education System)," 2013.
6. PDII LIPI, *Pedoman Akreditasi Terbitan Berkala Ilmiah*. 2014.



7. K. G. Wiryawan, "The current status of science journals in Indonesia," *Sci. Ed.*, vol. 1, no. 2, pp. 71–75, Aug. 2014.
8. Direktorat Penelitian dan Pengabdian kepada Masyarakat, "Pedoman Akreditasi Terbitan Berkala Ilmiah," 2014.
9. U. Sekaran and R. Bougie, *Research Methods for Business*, 6th ed. West Sussex: John Wiley & Sons Ltd, 2013.
10. H. Kurniawati, "Evaluasi Lingkungan Pengendalian dalam Pertumbuhan usaha yang Cepat: Studi Kasus pada PT G," *Binus Bus. Rev.*, vol. 2, no. 1, p. 456, May 2011.
11. E. Herawati, "Audit Sistem Informasi Aplikasi Persediaan Pada PT SS," *CommIT (Communication Inf. Technol. J.*, vol. 2, no. 2, p. 95, Oct. 2008.
12. Stefanus Ariyanto and J. Yanti, "Audit Operasional Atas Siklus Pendapatan Pada PT. New Inti Furindo Cabang Bandung," *Binus Bus. Rev.*, vol. 3, no. 1, pp. 219–227, 2012.
13. N. G. Lederman and J. S. Lederman, "The Future of Peer Review," *J. Sci. Teacher Educ.*, vol. 28, no. 3, pp. 219–221, 2017.
14. A. M. Sundjaja and E. Naviri, "The Adoption of Facebook as Internet Marketing Strategies in Journal Promotion," 2016 *Int. Conf. Inf. Manag. Technol.*, no. November, pp. 205–209, Nov. 2016.
15. A. M. Sundjaja and S. Mayangsari, "The adoption of email marketing in journal publishing (case study: Binus Business Review journal)," in 2016 *International Conference on Information Management and Technology (ICIMTech)*, 2016, pp. 97–101.

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