



Acceleration of Scopus and Web of Science Indexed International Publications

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Abstract. Journals indexed by Scopus/WoS (Web of Science) are considered to have the highest influencing factors. This study aims to analyze the influencing factors and strategies for accelerating international publications indexed by Scopus and WoS at the Faculty of Sports, Sebelas Maret University, Surakarta (FKOR UNS) through an analysis SWOT. This study used qualitative studies. Data were taken by semi-structured interviews with stakeholders. Data analysis was done by using Content Analysis technique. The research results are described based on interviews, then a strategy based on SWOT analysis is proposed. The results showed that the FKOR UNS has a institutional and technical context that allows the growth of international journal publications indexed by Scopus/WoS due to the existence of research groups and the availability of expert lecturers. However, these two aspects are not sufficient due to the lack of novelty of research ideas and limitations in understanding English. However, with access to Scopus/WoS/ScienceDirect subscriptions and English language skills development programs, the FKOR UNS can benefit from reading and writing quality journals. However, if the Faculty of Sports does not reach the target of publication of international journals indexed by Scopus/WoS, then there are threats that can be obtained, namely the low of index and the termination of lecturer allowances. So, strategy can be suggested is to create a collaborative program between Faculties of Sport from different Universities, to increase the capacity of lecturers, and strengthen the research group of the FKOR UNS. This is to be able to improve the quality and quantity of international journal publications indexed by Scopus/WoS internal to the Faculty of Sport.

Keywords: Acceleration, Publication, Scopus, Web of Science

1 Introduction

International publications are a means of communication between the scientific community in various countries. When research results are published, the benefits are broader, not just national. International publications also show the state of development and progress of science and technology in countries and universities. Publications are also the main evidence of the originality of the research carried out. Researchers can

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build international networks through publications. When many scientific journals are used as references and cited by scientific journals of other researchers, researchers can build a viable international network. The more scientific journals cited by other researchers, the higher the status as a researcher. In line with this, Strehl et al [1] explained that journal publications allow the expansion of knowledge about the characteristics of scientific production in developing countries and creates two parallel communication lines for scientists in developing countries: publications in international journals-selective pathways and publications in national journals-regional pathways [1].

Based on the QS World University Ranking in 2022, Sebelas Maret University, Surakarta, is ranked 1001-1200. One of the indicators related to research is the citation per faculty of research results. Looking at the strategic objectives in the research field and innovation, the acceleration of the quantity and quality of international publications indexed by Scopus/WoS is the main indicator in supporting the increasing reputation, influence and impact of research and innovation at Sebelas Maret University of Surakarta. This statement is supported by Ebrahim et al [2] that research results are an important part of measuring and evaluating the quality of an institution's research and the number of publications is a means to obtain research ratings [2]. Journals published in indexed international journals are a very strategic effort to increase university accreditation which can be seen from the ranking of a university that publishes journals. For an academic, it is also important for a functional position career because it can increase credit points. In line with this, Baumann [3] explains that the publication of research results affects the evaluation of research departments, research careers, and funding of research projects. The reputation of academic researchers is highly dependent on where they publish the journal, whether the journal is indexed or not [3].

Scopus and WoS are multidisciplinary and selective databases consisting of various specialization indices, grouped by content type or theme [4]. The main function of this database is to index the scientific literature and provide accurate information about the metadata of each scientific article, including publication date, abstract, and citation. Scopus/WoS provides data that shows how much influence journals and institutions have on scientific publications, based on citations of papers published by journals and by researchers at the institution. Scopus and WoS are bibliographic databases containing abstracts and citations of peer-reviewed journal articles and literature exchanges. These two databases are most often used for bibliometric purposes because they are considered to have the highest influence and are often cited by other papers [5]. This is because, the Scopus and WoS coverage is mostly in Technology, Physical Science, and Life Science [6]. Alryalat et al also stated that the Scopus search yielded the most documents, namely 11.444, then WoS, which was 10.943, while PubMed produced fewer documents due to a narrower scope of 4.363 [7].

Scopus/WoS as a data center for citations or scientific literature, allows authors to find out who made citations to papers that have been written. Thus, it used as a measure of author performance, quality and achievement by universities for administrative promotions and awards [8]. The more a journal is cited, the higher the impact of that journal and the resulting h-index score for the author. In general, the author's evaluation seen from number of papers published and citations is an index of academic influence. Ding et al explained that the h-index was used in the author's evaluation seen from number

of citations, with a minimum guideline of $h > 12$ for associate professor promotion and $h > 18$ for full professor promotion [9]. Scopus indexing significantly affects the number and ranking of author citations [10]. Therefore, it is important for both authors and universities for scopus/ WoS indexed international publications. So, strategy is needed to improve the quality and quantity of international publications indexed by Scopus/ WoS from the academic community of Sebelas Maret University, Surakarta.

This study aims to analyze the influencing factors and strategies for accelerating international publications indexed by Scopus and WoS at the FKOR UNS through a SWOT analysis. SWOT analysis emphasizes internal elements so that you can see strengths and weaknesses which are then used, as well as external elements, namely opportunities that can be exploited and threats that need to be minimized, to formulate strategies and solve problems effectively. According to Benzaghta et al, SWOT analysis provides a greater understanding of strengths, weaknesses, opportunities and threats in various sectors and different approaches that have meaningful implications for stakeholders in determining and improving their strategic decisions [11]

2 Materials and methods

2.1 Research Method

Qualitative method combined with stakeholder opinions to support four elements of SWOT used in this study for strategic planning in accelerating international publications indexed by Scopus and WoS at the FKOR UNS. According to Kumar [12], SWOT analysis aims to monitor performance and provide feedback to improve or maintain performance globally. SWOT analysis is carried out starting from setting goals and then conducting interviews with related people, so that they can find a list of each SWOT element that must be analyzed. It is an analytical technique used to evaluate strengths, weaknesses, opportunities and threats. After identifying each SWOT element, then a strategy can be drawn up by utilizing strengths to eliminate weaknesses and taking advantage of opportunities to neutralize potential threats.

2.2 Participant

To select the stakeholders as the main research informants, it is necessary to first determine who has an interest. The selection procedure was carried out by snowball, that is, existing subjects provide referrals to recruit the necessary samples for research [13]. Based on snowball, it was found that one informant was from the research group of the FKOR UNS, one from the Institute for Research and Community Service, Sebelas Maret University Surakarta, and one from the Quality Assurance Agency, Sebelas Maret University of Surakarta.

2.3 Data collection

To obtain opinions from each stakeholder, semi-structured interviews according to the purpose of this study. Table 1 shows the interview script with stakeholders.

Table 1. Interview script with stakeholders.

Aspects	Questions
Strengths	What is the strength of the FKOR UNS to accelerate international publications indexed by Scopus and the WoS?
	What factors enable the FKOR UNS to meet the demand for accelerated international publications indexed by Scopus and the WoS?
Weaknesses	What are the weaknesses of the FKOR UNS in accelerating international publications indexed by Scopus and the WoS?
	What are the factors that make it impossible for the FKOR UNS to meet the demand for accelerated international publications indexed by Scopus and the WoS?
	What are the obstacles that prevent the FKOR UNS from accelerating international publications indexed by Scopus and the WoS?
Opportunities	What are the opportunities for the FKOR UNS in accelerating international publications indexed by Scopus and WoS?
Threats	What are threats for the FKOR UNS if it cannot achieve the target of accelerating international publications indexed by Scopus and the WoS?
	What risks can be faced by the FKOR UNS if it does not reach the target of accelerating publications indexed by Scopus and WoS?

2.4 Data Analysis

The data obtained during the interviews were analyzed and collected using Content Analysis techniques [14]. Interview results from informants were read and coded using a code determined by the researcher according to certain criteria. The results of the study are presented in the form of a SWOT analysis table based on the informant. Furthermore, each SWOT code is analyzed with the appropriate reference. Finally, a publication acceleration strategy is proposed based on a SWOT analysis.

3 Results

The four elements of SWOT mentioned by the stakeholders is illustrated in Table 2.

Table 2. Four Elements of SWOT

Aspek	Kode	Hasil Interview
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Strenght	(ST1)	The availability of lecturers at the Faculty of Sports with different majors and scientific fields
	(ST2)	The existence of a research group at the Faculty of Sports
	(ST3)	Collaboration between Sport Faculty from different University
Weaknesses	(WK1)	Lack of ideas novelty
	(WK2)	Less of understanding of English with sports terms
	(WK3)	Predatory journal
Opportunities	(OP1)	There is access to databases and digital libraries that are subscribed to Scopus, WoS, ScienceDirect which have been given by Universitas Sebelas Maret Surakarta for Faculties
	(OP2)	There is a specific English skill development program organized by the research group of the FKOR UNS
Threats	(TH1)	Low h-index
	(TH2)	Lecturer's professional allowance and professor's honor are temporarily suspended

4 Discussion

Through the results of the analysis four SWOT elements, it becomes clear that the FKOR UNS, already has a institutional and technical context that allows the acceleration of international publications indexed by Scopus/ WoS. SWOT results show that the existence of a research group at the FKOR UNS (ST2) as a forum to spur the growth of quality research in each faculty become a strength. Research group activities include the design and implementation of certain scientific activities, projects in the medium and long term, as well as research assistance activities. Through research groups, lecturers' careers in research are more professional. This is supported by Dickson et al [15], through group research mentoring can encourage professional success, because there is a network in the same field so that one is able to prepare and develop one's research early in his career [15].

The availability of lecturers with various disciplines (ST1) and collaboration between the Faculty of Sport at different universities (ST3) are also strengths so that they can overcome problems in the weakness of novelty of ideas (WK3). Collaboration was also carried out by Vietnamese authors where most of the 193 papers/journals were written in collaboration with authors from other countries such as Australia, the United States, Bangladesh, Hong Kong, Italy, India, Japan, Taiwan, Cambodia, South Africa, Germany, Singapore, South Korea [16]. On the other hand, in overcoming the weakness of the novelty of ideas (WK1), Sebelas Maret University Surakarta has provided access to databases and digital libraries that subscribe to Scopus, WoS, ScienceDirect can be used by authors which become the opportunities (OP1). This is also done by the government of Kazakhstan to create many opportunities to follow scientific developments around the world and learn by reading quality journals [17]. Through subscribed data-

bases and digital libraries, authors can search, retrieve references for their research journals, thereby increasing opportunities for publication in international journals indexed Scopus/ WoS.

However, the existences of predatory journals become a weakness (WK3) in this acceleration program. This is because publications in predatory journals are indicated as journals of questionable quality. The evidence is shown in the research of Yesirkepov et al [17] which explains there are several predatory journals and are questionable because they were removed from the Scopus list and lost their impact index publishing the largest paper from Kazakhstan. The reason is explained by Cobey et al [18], that some authors don't know predatory journals, others they need fast career advancement. Meanwhile, Shaghaei et al [19] explained that the authors chose predatory journals because of their open access potential and the speed and ease of publication. In addition, the weakness of poor English writing skills (WK2) forces the authors of the FKOR UNS to stay at the national level. Similarly, the results of research by Yessirkepov et al [17] which explain that the writer's English writing skills are still not satisfactory. So that in overcoming this weakness it is recommended to improve English writing skills. This is in line with the opinion of Huu Nguyen et al [16] that English give the largest number of journals which allows concluding that the need for great attention in the education system to teaching or learning of English.

As opportunities in overcoming the weaknesses of WK2, in 2021 there will be an arrangement in the research group of the FKOR UNS to create the innovative breakthroughs in research and service activities and encouraging them to be more active. Journal writing training with reputation is held as an effort to develop knowledge and skills to be more effective and efficient, as well as gaining knowledge and new skills related to reputable journals. This program specializes for lecturers at the FKOR UNS. Through this training program, it is hoped that Sebelas Maret University lecturers will be able to improve the quality and quantity of international publications indexed by Scopus/ WoS. The reputation journal training program is in the form of developing specific English skills (OP2). This aimed that each individual is able to well write journals in English and understand how to respond to reviewers' input. In line with this, Hall et al [20] explain that to ensure the success of researchers, training is used as a growth area in increasing knowledge and skills.

The purpose of publication has changed due to the priority of growth based on the evaluation of scientific output has become an important criterion [4]. Education policy are thought to be the impact of the shift in the role of scientific publications. This is because education policies such as Permenristekdikti No. 20 of 2017 requires scientific writings from each lecturer to receive a lecturer professional allowance and an honorary professor allowance at least one reputable international journal within the last three years [21]. If it does not meet the requirements, the allowance will be temporarily suspended (TH2). This is a threat to the lecturers of the FKOR UNS, so to avoid these threats, lecturers need to publish international journals. In addition to the threats described previously, there are threats of low h-index (TH1) if they do not reach the publication acceleration target. This is because the h-index is an index that measures the impact of indexed journal publications. It is very important for lecturers to increase the h-index to achieve career advancement. Therefore, to increase the h-index, the growth

in the number of indexed publications must be increase. Based on Kwiek, the growth of publications in Europe is almost entirely due to collaboratively written journals. Individual scientists willingness to collaborate internationally to advance publication in Europe. Scientists collaborate internationally, thereby increasing academic prestige, scientific recognition, and access to research funding that includes 5.5 million Scopus indexed articles [22].

4.1 Strategies for accelerating Scopus and WoS indexed international publications at the FKOR UNS

Based on the SWOT analysis, several actions have been taken to improve the quality and quantity of international publications indexed by Scopus and WoS at the FKOR UNS. Through a SWOT analysis, the following strategies can help the FKOR UNS to realize opportunities and avoid threats mentioned by stakeholders as described below:

- Create a collaboration program between Sports Faculties from different University to overcome the weaknesses of WK1 which shows the lack of lecturers' involvement in research, causing a lack of publication growth. In particular, the program must pay attention to OP1 opportunities as well as TH1 and TH2 threats. This is supported by Hall et al [20], that collaboration between researchers and across disciplines or organizations is very important to overcome the increasingly complex threats and opportunities in research.
- Increasing the capacity of lecturers to produce quality research by providing English language skills development programs to lecturers will remove of the weaknesses of WK2 and WK3. This upgrading program can take advantage th strengths of ST2 and will promote OP2 opportunities. In addition, Strengths ST2 is a forum for research activities at the FKOR UNS. This is supported by Cargill and O'Connor [23], that in research writing strategies, programs are needed to develop group and individual skills and develop specific English language skills. Group and individual skills development programs may include journal groups, writing groups, being a reviewer, and training to respond to reviewers. Specific English skill development programs can be in the form of learning the types of errors and editors' expectations in language use, strategic language reuse, studying noun phrases, and using concordancing which is a tool for developing disciplines-specific English.
- Strengthening research groups at FKOR UNS is to develop individual and institutional capabilities. Mirzoev et al [24] explain that organizational strengthening is carried out by aligning capacity building in the mission and vision of the organization as a whole and contributing to aligning relevant efforts. Special emphasis on research identification and individual competence. This will address WK1, WK2, and WK3, which are supported by ST1. Given the opportunity to follow scientific developments around the world and learn by reading quality journals (OP1). This strategy will reduce TH1 and TH2.

5 Conclusion

Considering the increasing importance of the publication of Scopus/WoS indexed international journals in the international scenario, this study analyzes the acceleration factor for the publication of international journals indexed by Scopus/WoS at the FKOR UNS. This analysis was conducted through interviews based on the views of stakeholders about the four elements of SWOT at the Faculty. The results showed that the FKOR UNS has a institutional and technical context that allows the growth of international journal publications indexed by Scopus/WoS due to the existence of research groups and the availability of expert lecturers. However, these two aspects are not sufficient due to the lack of novelty of research ideas and limitations in understanding English. However, with access to Scopus/ WoS /ScienceDirect subscriptions and English language skills development programs, the FKOR UNS can benefit from reading and writing quality journals. However, if the Faculty of Sports does not reach the target of publication of international journals indexed by Scopus/ WoS, then there are threats that can be obtained, namely the low h-index and the termination of lecturer allowances. Based on the research results, the suggested strategy is to create a collaborative program between Faculties of Sport from different Universities to increase the capacity of lecturers, and to strengthen the research group of the FKOR UNS. So as to be able to improve the quality and quantity of international journal publications indexed by Scopus/WoS internal of Faculty of Sport.

References

1. L. Strehl, L. Calabró, D. O. Souza, and L. Amaral, "Brazilian science between national and foreign journals: Methodology for analyzing the production and impact in emerging scientific communities," *PLoS One*, vol. 11, no. 5, pp. 1–15, 2016.
2. N. A. Ebrahim *et al.*, "Effective strategies for increasing citation frequency," *Int. Educ. Stud.*, vol. 6, no. 11, pp. 93–99, 2013.
3. H. Baumann, "Publish and perish? The impact of citation indexing on the development of new fields of environmental research," *J. Ind. Ecol.*, vol. 6, no. 3–4, pp. 13–26, 2003.
4. R. Pranckutė, "Web of science (Wos) and scopus: The titans of bibliographic information in today's academic world," *Publications*, vol. 9, no. 1, 2021.
5. G. Galyani-Moghaddam, H. Jafari, and A. Sattarzadeh, "Publications by faculty members indexed in science citation index and Scopus: an Iranian case study," *Emerald insight*, vol. 9, no. 2–3, pp. 133–141, 2017.
6. V. K. Singh, P. Singh, M. Karmakar, J. Leta, and P. Mayr, "The journal coverage of Web of Science, Scopus and Dimensions: A comparative analysis," *Scientometrics*, vol. 126, no. 6, pp. 5113–5142, 2021.
7. S. A. S. Alryalat, L. W. Malkawi, and S. M. Momani, "Comparing bibliometric analysis using pubmed, scopus, and web of science databases," *J. Vis. Exp.*, vol. 2019, no. 152, 2019.
8. S. R. U. Shah, K. Mahmood, and A. Hameed, "Review of google scholar, web of science, and scopus search results: The case of inclusive education research," *Libr. Philos. Pract.*, vol. 2017, no. 1, 2017.

9. J. Ding, C. Liu, and G. A. Kandonga, "Exploring the limitations of the h-index and h-type indexes in measuring the research performance of authors," *Scientometrics*, no. 0123456789, 2020.
10. L. I. Meho and K. Yang, "Impact of data sources on citation counts and rankings of LIS faculty: Web of science versus scopus and google scholar," *J. Am. Soc. Inf. Sci. Technol.*, vol. 58, no. 13, pp. 2105–2125, 2007.
11. M. A. Benzaghta, A. Elwalda, M. Mousa, I. Erkan, and M. Rahman, "SWOT analysis applications: An integrative literature review," *J. Glob. Bus. Insights*, vol. 6, no. 1, pp. 55–73, 2021.
12. A. Kumar, "Comparing scientific productivity using Scopus and Web of Science (WoS): a case of Indian R&D laboratories," *Asian J. Technol. Innov.*, vol. 29, no. 3, pp. 414–426, 2021.
13. C. Parker, "Snowball Sampling," *SAGE Res. Methods Found.*, 2019.
14. L. C. Benites, J. V. Do Nascimento, M. Milistetd, and G. O. Farias, "Content analysis in educational research in physical education: A study on curricular internship," *Movimento*, vol. 22, no. 1, pp. 35–50, 2016.
15. K. S. Dickson, J. E. Glass, M. L. Barnett, A. K. Graham, B. J. Powell, and N. A. Stadnick, "Value of peer mentoring for early career professional, research, and personal development: a case study of implementation scientists," *J. Clin. Transl. Sci.*, vol. 5, no. 1, 2021.
16. C. H. Nguyen, L. T. M. Nguyen, T. Tran, and T. T. Nguyen, "Bibliographic and content analysis of articles on education from Vietnam indexed in Scopus from 2009 to 2018," *Sci. Ed.*, vol. 7, no. 1, pp. 45–49, 2020.
17. M. Yessirkepov, B. Nurmashev, and M. Anartayeva, "A scopus-based analysis of publication activity in Kazakhstan from 2010 to 2015: Positive trends, concerns, and possible solutions," *J. Korean Med. Sci.*, vol. 30, no. 12, pp. 1915–1919, 2015.
18. K. D. Cobey, M. M. Lalu, B. Skidmore, N. Ahmadzai, A. Grudniewicz, and D. Moher, "What is a predatory journal? A scoping review," *F1000Research*, vol. 7, no. 3, pp. 1–29, 2018.
19. N. Shaghaei *et al.*, "Being a deliberate prey of a predator – Researchers' thoughts after having published in a predatory journal," *Lib. Q.*, vol. 28, no. 1, pp. 1–17, 2018.
20. K. L. Hall *et al.*, "The science of team science: A review of the empirical evidence and research gaps on collaboration in science," *Am. Psychol.*, vol. 73, no. 4, pp. 532–548, 2018.
21. Kemenristekdikti, "Petunjuk Teknis Peraturan Menteri Riset, Teknologi, Dan Pendidikan Tinggi Nomor 20 Tahun 2017 Tentang Tunjangan Profesi Dosen Dan Tunjangan Kehormatan Profesor," *Kementeri. Riset, Teknol. dan Pendidik. Tinggi*, pp. 1–8, 2017
22. M. Kwiek, "What large-scale publication and citation data tell us about international research collaboration in Europe: changing national patterns in global contexts," *Stud. High. Educ.*, vol. 46, no. 12, pp. 2629–2649, 2021.
23. M. Cargill and O. Patrick, *Writing Scientific Research Articles 2th edition*. 2012.
24. T. Mirzoev, S. M. Topp, R. A. Afifi, R. Fadlallah, F. A. Obi, and L. Gilson, "Conceptual framework for systemic capacity strengthening for health policy and systems research," *BMJ Glob. Heal.*, vol. 7, no. 8, pp. 1–7, 2022.

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