Scopus Publication Performance of PTNBH Accounting Lecturers

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Abstract. The Ministry of Research Technology, and Higher Education has set the output of all basic research and capacity building activities to at least produce publications. Accounting lecturer publications in the form of articles, proceedings, and other documents indexed by Scopus are very important both for lecturers and for higher education institutions. Moreover, the existence of the scopus document has an impact on citations and h-index scopus accounting lecturers of all universities including legal entity universities (PTNBH). Currently, there are 21 PTNBHs, and 19 of them have accounting study programs. Some research on scopus publications has not been done much, and existing research has not specifically examined how publications in the field of Accounting and their impact on citations and h-index of these publications. Even though some accounting lecturers are included in the highest Sinta score for economics. In connection with this, it shows that it is necessary to research on how the scopus publications of accounting lecturers are included in PTNBH and their impact on scopus citations and H-index. The method used uses two analyses, namely classical regression analysis and quantile regression. Classical regression analysis by conducting descriptive research data analysis and quantile regression analysis with a quantile level of 50. The entire analysis process uses the help of SPSS 26 software. The results showed that the number of documents impacted increasing citations of PTNBH accounting lecturers. This indicates that the more scopus documents produced will affect the number of Scopus-indexed articles that other authors will reference. The same result is also for h-index. The scopus documents greatly contributes to the lecturer's scopus h-index. This shows that any increase in the scopus documents (articles, proceedings, others) will have an impact on increasing the lecturer's scopus h-index..

Keywords: Scopus documents, scopus citations, h-index scopus.

1   Introduction

Director General of Higher Education, Ministry of Research and Technology, Prof. Ir. Nizam, M.Sc., PhD, said that all universities with PTN-BH status are encouraged to increase the number of international standard journals and top English-language journals. This was explained by Nizam as a keynote speaker at the Academic Senate-Assembly of Legal Entity State Universities (MSA PTN-BH) entitled International

Recognition of Indonesian Universities through QS Ranking Improvement at UGM (https://ugm.ac.id/id/berita/.). As many as 21 state universities have obtained legal entity status or PTN-BH by 2022. PTN-BH are universities established by the government with status as public legal entities and given autonomous rights. With these independent rights, PTN-BHs can manage their universities independently, both academic and non-academic. PTN-BH can be said to be the top level of university status in Indonesia. To make this happen, the Directorate General of Higher Education, Research and Technology has facilitated the Incentive Program for the Improvement of Reputable Scientific Articles in 2022. The program aims to increase the number of scientific publications in world-class reputable journals and spur lecturers' productivity to conduct research and write scientific articles. This shows that PTNBH is expected to support increasing the number of reputable international publications. One of the widely used indexers is Scopus.

The demand for writing for Scopus-indexed journals is a fixed price. They are encouraging Universities (HEIs) to publish papers in Scopus-indexed journals and other leading indexed journals. It is this obligation that often causes problems. Why choose Scopus? The main reason is that Scopus-indexed journals are renowned international journals. Kemenristekdikti sources explain that in the operational guidelines, journals indexed by Web of Science or Scopus have a high credit value (for lecturers and researchers). Before indexing by Scopus, the quality and credibility of the journal or conference activity will be carefully reviewed and scrutinised (this will lead to conference procedures).

Publication of scientific papers in Scopus-indexed journals is a current demand for all academics, including accounting academics. Academics or accounting lecturers in all universities, both state and private universities, need publications in the form of articles, proceedings, and other documents (for example, books) indexed by Scopus to manage appointments and for those who are continuing their studies as a prerequisite for completing their studies. The increasing number of Scopus documents of accounting lecturers is expected to increase the citations and h-indexes of accounting lecturers of all universities in Indonesia, including accounting lecturers in universities with PTNBH status.

Lecturer research published in Scopus-indexed international journals and proceedings shows a positive trend. However, it is still scarce that research on Scopus publications impacts the citations and H-index of Scopus lecturers. As in the main performance indicators of higher education, one of which is related to international publications, especially related to the citations of international publications including those indexed by Scopus. In addition, when proposing national accreditation, there are output criteria that require international publications in Scopus-indexed journals and proceedings including the number of citations. Therefore, research is needed to explore data related to the publication of accounting lecturers in scopus and how it impacts the citations and H-index of these lecturers. Previous studies only examined trends in international scientific publications, analysis of rankings based on international publication indicators, and analysis of publications on citation and H-index of lecturers in one university only. Whereas currently, there are 21 PTNBH which are expected to have a high publications in scopus, citations, and h-index. In connection with this, this research is important to

be carried out henceforth as a basis for the policies of related universities and the Ke-menristekdikti regarding reputable international publications.

Table 1. List of PTNBH

No	University
1	Universitas Indonesia (UI)
2	Institut Teknologi Bandung (ITB)
3	Institut Pertanian Bogor (IPB)
4	Universitas Gadjah Mada (UGM)
5	Institut Teknologi Sepuluh Nopember (ITS)
6	Universitas Padjadjaran (Unpad)
7	Universitas Diponegoro (Undip)
8	Universitas Airlangga (Unair)
9	Universitas Brawijaya (UB)
10	Universitas Sumatera Utara (USU)
11	Universitas Hasanuddin (Unhas)
12	Universitas Sebelas Maret (UNS)
13	Universitas Pendidikan Indonesia (UPI)
14	Universitas Negeri Malang (UM)
15	Universitas Andalas (Unand)
16	Universitas Negeri Padang (UNP)
17	Universitas Negeri Semarang (Unnes)
18	Universitas Negeri Surabaya (Unesa)
19	Universitas Syiah Kuala (Unsyiah)
20	Universitas Terbuka (UT)
21	Universitas Negeri Yogyakarta (UNY)

Source: www.cnnindonesia.com, 2023

Therefore, this research is needed to explain whether the scopus documents pro-duced of accounting lecturers at PTNBH will have an impact on increasing the citations and the h-index of the accounting lecturer's scopus. The results of this study will con-tribute to the leadership of PTNBH and the Ministry of Education and Culture regarding Scopus publication profiles which can then be used as a basis for making decisions on related matters.

2   Literature Review

Research on Scopus publications has been carried out, including, Putera revealed trends in Indonesia's international scientific journals in 2015-2019. The results showed that

Indonesia's international publications during the 2015-2019 period experienced a significant increase at 5.5 times, in 2015 increase of 5.5 times from journals in 2015. Munir was the most productive author with 239 publications over the five years and Universitas Indonesia was the institution that produced the most publications with 11,661 articles. Other results show that 50.9% of publications produced by authors from Indonesia were published in Scopus-indexed international proceedings. Most collaborators came from Malaysia (5,780 articles). Engineering is the most dominant field of research published; the top three publication sources confirm this [1].

Nugroho explains that the subject of Universitas Airlangga researchers in the social science field in Scopus in 2018 is the most in the social science field, as many as 39. The type of publication document from Universitas Airlangga researchers in the social science in 2018 is the most journals, with as many as 79 documents. The journal that contains the most publications of Universitas Airlangga researchers in the social science in 2018 is the journal Pertanika Malaysia. The Faculty of Economics and Business (FEB), which produced 61 documents, is the most productive faculty in social science in 2018. Furthermore, the citation of Universitas Airlangga researchers in the field of social sciences in 2018, associated with journals subscribed by the library, still needs to be improved [2].

Nugroho analyse whether there is a correlation between the number of scientific papers and publications on Scopus, with the independent variable being the number of scientific papers majoring in information library science at the Airlangga University library, the dependent variable being the number of publications on the Scopus website. The research period is from 2014 to 2021. The results showed that the number of theses significantly affected the number of publications on Scopus with topics or majors about libraries. This is because, in addition to the campus requiring a lot of research outputs, namely publications, there are also many theses that can be developed so that they can be utilised in a good paper and published in Scopus-indexed journals. This study concluded that the highest number of theses was produced in 2017 but did not correlate with the number of documents on Scopus in 2017 [3].

Pramesti examines the Ranking Analysis of State Universities with Legal Entities (PTN-BH) in Indonesia based on Indicators of Research Publications at International Institutions aims to evaluate the existing conditions of Scopus and Google Scholar indexed research publications throughout PTN-BH using modelling of factors that affect the number of citations and publication h-index with recursive quantile regression. Quantile regression is used as an alternative method to handle non-uniform data distribution. Recursive modelling is used because there is a unidirectional relationship between the citations and publication h-index. From the results of the recursive quantile regression analysis, it was concluded that Scopus Q1 journals have the highest impact on the increase of citations in all PTN-BH in all types of quantiles and the same number of Q1 journal publications (X2) has a different effect on the increase in Scopus h-index, namely 0.253 for quantile 0.1, 0.382 for quantile 0.5, and 0.352 for quantile 0.9 [4].

However, in these studies, this is the first time anyone has specifically examined the publication of the Accounting field and its impact on the citations and H-index. Even though some accounting lecturers are included in the highest Sinta score for the field of economics according to the web https://sinta.kemdikbud.go.id/, in addition, the

existence of 21 universities in Indonesia that have changed their status to PTNBH shows that 19 of these PTNBH have Accounting study programs. Previous research on the trend of Scopus publications in business (accounting) shows that the publication rate is only 4%. In connection with this, it shows that it is necessary to research how the scopus publication of accounting lecturers is included in PTNBH and its impact on citation and H-index scopus.

Scopus is the most extensive database for scientific publications such as journals, books, and conference proceedings. In detail, Scopus coverage consists of Scientific journals that apply the concept of peer-reviewed journals, subscription-based or open-access journals, Scopus-indexed books, and conference proceedings. Citation is a work or several parts of a work produced by the author, writer, or editor before clearly and legally identifying a document obtained, which becomes a reference in written form [5]; [6]; [7]. An author cites or cites the scientific work of previous researchers for reasons, among others, to strengthen a finding in the scientific work made, to give credit to previous authors, to inform readers about research in scientific work that has been carried out by last scientists, to explain a concept and to explain a theory, showing another work or reference and so on [8]. The reasons for the author citing the previous author's work include strengthening the findings, introducing the reader to complete research, explaining concepts or theories, displaying other different works, etc. [9]. This means that new academic works will always cite or quote previous related works. An h-index is defined as the number of papers with a citation number and serves to characterise the scientific work of a researcher [8]; . The H-index is a simple measure: 1) the productivity of a researcher's scientific work and 2) the impact of that scientific work on scientific development. The index is calculated based on a combination of the number of publications and the number of citations (and their citation distribution). The H-Index is an index that attempts to measure the productivity and impact of published work by a scientist or scholar. In Scopus, the h-index is not a static value but is calculated based on the results of each search process performed.

3   Research Method

The data used in this study are secondary data in the form of publication documents indexed by Scopus whether in the form of journals and proceedings; the citations; and Scopus h-index scores. These data are sourced from the Science and Technology Index (SINTA) website in December 2022. The variables used in this study include Scopus Citation (Y1) as response variable one and Scopus H-Index (Y2) as response variable 2. At the same time, a predictor variable is the Scopus article (X). Scopus article (X) is measured by the number of scopus indexed publication documents, Scopus Citation (Y1) is measured by the number of scopus publication citations, and the H-index value of scopus publications measures Scopus H-Index (Y2).

The analysis steps used in the study began with descriptive analysis of the response variable data (Y1 and Y2) and the predictor variables (X) used in this study, and then quantile regression analysis was carried out with a quantile level of 50. The entire analysis process used the help of SPSS 26 software.

4   Results and Discussion

This study uses scopus citation data, scopus h-index, and scopus documents in the form of scopus articles, scopus proceedings, and other scopus documents from accounting lecturers from universities in Indonesia with PTNBH status. The number of accounting lecturers in all universities in Indonesia is 7,082 people, but the number of PTNBH special accounting lecturers is 719 people (https://sinta.kemdikbud.go.id/subjects.). Based on the data in Table 1, it is known that the number of scopus articles (Doc) of PTNBH accounting lecturers shows a minimum value of 0 and a maximum of 180 with a mean value of 4.45. Likewise, the number of Scopus citations (Cit) of PTNBH accounting lecturers shows a minimum value of 0 and a maximum of 2012 citations with a mean value of 21.78, meaning that around 22 people on average cite the work of accounting lecturers indexed by Scopus. The Scopus h-index (Hind) data of PTNBH accounting lecturers' work shows a minimum value of 0 and a maximum value of 25 with a mean of 1.25, which means that the average Scopus-indexed accounting lecturer's work is traced to one person.

Table 2. Descriptive statistics

		Doc	Cit	Hind
N	Valid	719	719	719
	Missing	0	0	0
Mean		4.4520	21.7886	1.2517
Median		1.0000	0.0000	0.0000
Std. Deviation		10.84367	94.50453	2.13586
Minimum		0.00	0.00	0.00
Maximum		180.00	2012.00	25.00

Source: Data processed by researchers, 2023

Regarding the data on documents, citations, and h-index Scopus for each university with PTNBH status as presented in figures 1 to 3, it shows that for IPB, both documents, citations, and h-index all show 0. The lowest number of Scopus documents is 0 in all PTNBH, meaning that all PTNBH lecturers have yet to publish in Scopus. The most Scopus documents were 180 produced by lecturers from USU. At the same time, the lowest average Scopus document is 0.78 for UT; not all UT lecturers have Scopus publications. The highest is 11.45, produced by accounting lecturers from Unair, meaning that each lecturer makes an average of 11 Scopus documents.
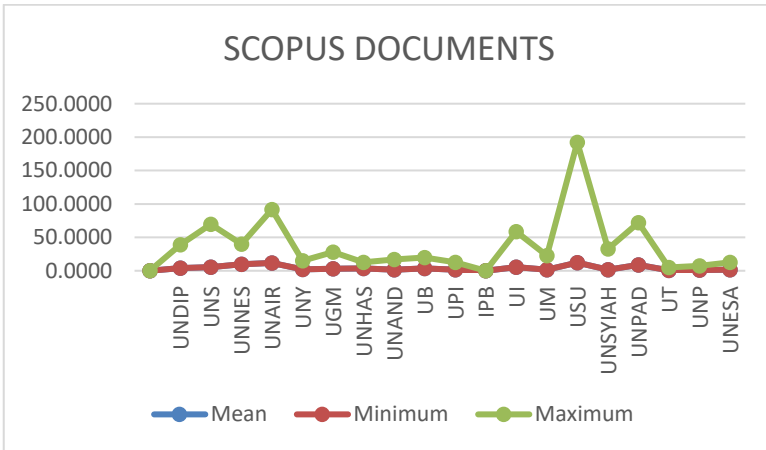
Fig. 1. Scopus Documents of PTNBH Accounting Lecturers (Source: data processed by researchers, 2023)

The lowest number of Scopus citations is 0 in all PTNBH, meaning that all PTNBH have Scopus publications that have yet to be cited. The highest number of Scopus citations was in 2012, produced by lecturers from USU, which means that in 2012 people cited the lecturer's Scopus publication. While the lowest average Scopus citation was 1.23 for the UT lecturer's scopus publication citation, the UT lecturer's scopus publication was only cited by an average of 1 person, and the highest was 124.67 citations for the USU lecturer's Scopus publication, so the average USU lecturer's scopus publication is cited by almost 125 people. The lowest H-index Scopus data is 0 in all PTNBH, and the highest H-index Scopus is 25 for USU lecturers with an average of 2.7, meaning that the lecturer's Scopus publications have been traced to 2 people.
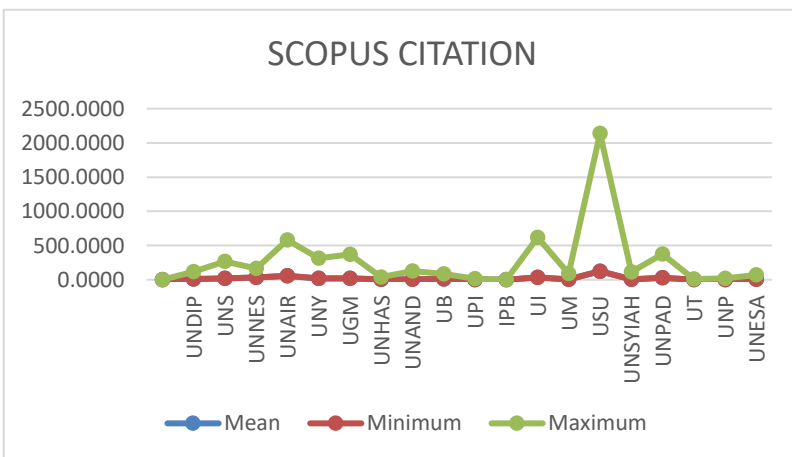

Fig. 2. Scopus Citation of PTNBH Accounting Lecturer (Source: data processed by researchers, 2023)
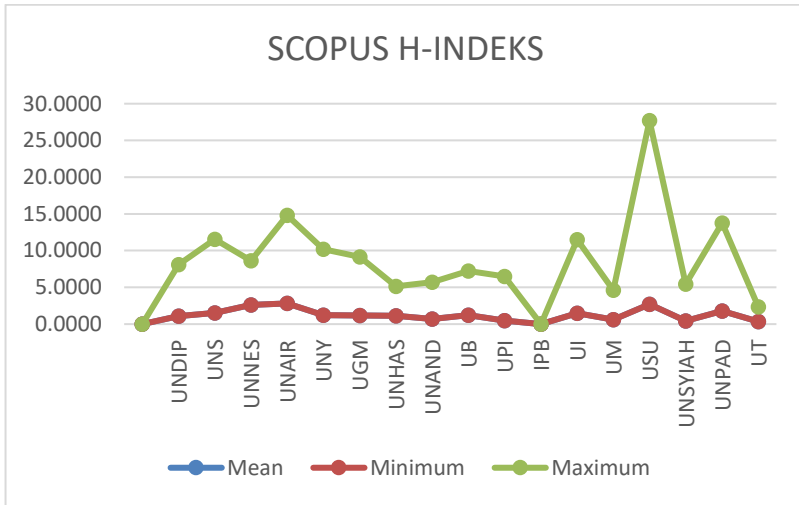
Fig. 3. H-Index Scopus of PTNBH Accounting Lecturers (Source: data processed by researchers, 2023)

This study uses the 50th quantile regression method to obtain a model that explains the influence of predictor variables on the number of citations and h-index scopus of PTNBH accounting lecturers. Table 2 presents the results of statistical processing using SPSS for the 50th quantile regression.

Table 3. 50th Quartile Regression Test Results

Response Variable	Predictor Variable	Coefficient	Standard Error	P-Value	R-Squared
Cit	Doc	3,429	0,012	0,000	0,368
H-Indeks		0,216	0,002	0,000	0,544

Source: Data processed by researchers, 2023

Table 2 shows that the predictor variables affect the citations and h-index scopus of PTNBH accounting lecturers (p-value <0.05). Regarding the goodness of fit of the quantile regression model at quantile 50, it can be explained as presented in Table 2 that the R2 value for Scopus citations of PTNBH accounting lecturers shows a value of 0.368, which means that 36.8% of the number of Scopus citations can be explained by the number of Scopus documents of PTNBH accounting lecturers and the remaining 63.2% is explained by other variables outside the model in this study. In addition, the R2 value for the h-index Scopus of PTNBH accounting lecturers shows a value of 0.544, which means that 54.4% of the h-index Scopus can be explained by the number

of Scopus documents of PTNBH accounting lecturers and the rest is explained by other variables outside the model in this study.

The number of Scopus documents of PTNBH accounting lecturers in articles, proceedings, and other documents dramatically contributes to the increasing number of Scopus citations of PTNBH accounting lecturers. This shows that the more Scopus documents produced will impact the growing number of Scopus-indexed articles that other authors will cite as their references. The same result is also for the h-index. The number of articles, proceedings, and other scopus documents greatly contributes to the scopus h-index of lecturers. This shows that any increase in the number of scopus documents (articles, proceedings, others) will have an impact on increasing the lecturer's Scopus h-index.

5   Conclusion

This study aims to explain whether the number of Scopus documents produced by accounting lecturers from universities with PTNBH status will have an impact on increasing the citations and h-index of the accounting lecturer's Scopus. The publication of accounting lecturers in articles, proceedings, and other documents indexed by Scopus is very important for lecturers and higher education institutions. Moreover, the existence of the Scopus document impacts the number of citations and h-index Scopus accounting lecturers of all universities, especially universities with PTNBH status. The test results using classical regression show that the number of Scopus documents impacts increasing the citations and h-index Scopus accounting lecturers of all universities. This study contributes to the fact that the results of this study can be used as a basis for consideration in making Scopus publication policies for all tertiary institutions, especially PTNBH and Kemdikbudristekdikti universities. PTNBH, as a tertiary institution, is a mainstay of the government to be able to compete internationally. Recommendations for future research: Future research should be able to compare publications indexed by Scopus and Sinta between universities with PTNBH status and non-PTNBH universities to motivate both types of universities regarding the publication of quality scientific papers.

References

1. P. B. Putera, Parama T. W. W. Kusuma, and S. Kadang, "Indonesian International Scientific Publication Trend, 2015-2019," Pustabiblia J. Libr. Inf. Sci., vol. 5, no. 1, pp. 77–96, 2021, doi: 10.18326/pustabiblia.v5i1.77-96.
2. P. A. Nugroho, "Sitasi Peneliti Universitas Airlangga (Bidang Social Science) Tahun 2018 Di Database Scopus Serta Korelasinya Dengan Jurnal Yang …," VISI PUSTAKA Bul. Jar. Inf. …, vol. 21, no. 3 (2019)
3. P. A. Nugroho, "Korelasi Jumlah Repositori Karya Akhir pada Repositori Perpustakaan dan Jumlah Artikel di Scopus tentang Perpustakaan," Media Pustak., vol. 29, no. 2, pp. 119–127 , doi: 10.37014/medpus.v29i2.1542 (2022)
4. E. A. Pramesti, S. Setiawan, and D. D. Prastyo, "Analisis Perangkingan Perguruan Tinggi Negeri Berbadan Hukum (PTN-BH) di Indonesia Berdasarkan Indikator Publikasi

Penelitian pada Lembaga Internasional," J. Sains dan Seni ITS, vol. 11, no. 3, doi: 10.12962/j23373520.v11i3.77007 (2022)

5. C. T. Zhang, "The h'-Index, Effectively Improving the h-Index Based on the Citation Distribution," PLoS One, vol. 8, no. 4, pp. 1–10, 2013, doi: 10.1371/journal.pone.0059912.

6. Q. Aini, I. Handayani, and S. R. Dewi, "Manajemen sitasi dan publikasi ilmiah menggunakan SINTA score dalam meningkatkan reputasi peneliti," Manaj. Sitasi dan Publ. Ilm. Menggunakan SINTA Score Dalam Meningkat. Reputasi Peneliti Qurotul, vol. 14, no. 2, p. 94 (2019)

7. S. Thakral, D. Bansal, and S. K. Chakarvarti, "Implementation and Analysis of Reversible logic Based Arithmetic Logic Unit," TELKOMNIKA (Telecommunication Comput. Electron. Control., vol. 14, no. 4, p. 1292 , doi: 10.12928/telkomnika.v14i4.3230 (2016)

8. J. E. Hirsch, "An index to quantify an individual's scientific research output," Proc. Natl. Acad. Sci. U. S. A., vol. 102, no. 46, pp. 16569–16572, doi: 10.1073/pnas.0507655102 (2005)

9. J. Andriani, "Aktivitas Pustakawan Dalam Layanan Penelusuran Elektronis (Studi kasus di Pusat Perpustakaan dan Penyebaran Teknologi Pertanian)," J. Perpust. Pertan., vol. 20, no. 20, pp. 78–84 (2011)

10. Grehenson, gusti. 2022. UGM dan PTN-BH Diminta Membangun Reputasi Akademik Lewat Kolaborasi Publikasi accessed from website: https://ugm.ac.id/id/berita/23164-ugm-dan-ptn-bh-diminta-membangun-reputasi-akademik-lewat-kolaborasi-publikasi/ (2023)

11. No Name. 2022. Daftar Terkini Universitas di Indonesia Berstatus PTN-BH. accessed from website: https://www.cnnindonesia.com/gaya-hidup/20221027074021-284-865917/daftar-terkini-universitas-di-indonesia-berstatus-ptn-bh (2023)