Research Article

The Current Research of Pesantren Muhammadiyah in Indonesia: A Bibliometric Study from 2011-2020

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Abstract. The number of pesantren Muhammadiyah has increased dramatically in recent years. Therefore, a mapping of pesantren Muhammadiyah research is required to find the trend of publications, article citations, publishers, and keywords. Through bibliometric studies, this article seeks to identify and analyze pesantren Muhammadiyah’s studies published in reputable journals between 2011 and 2020. The mind-mapping method used in this study consisted of four stages: first, searching articles from the Google Scholar database using the Publish or Perish (PoP) applications. Second, papers are filtered. Third, double-check and complete the paper metadata. Fourth, arranging bibliometric analysis using the VOSviewer. The investigation yielded four conclusions: first, Pesantren Muhammadiyah publication trends yearly. The study revealed an improving publication trend; second, the scope of religious awareness received the most citations in pesantren Muhammadiyah articles; third, the most reports on pesantren Muhammadiyah and its publisher. The most frequently cited journal is Jurnal Tarbiyatuna, the most commonly cited publisher is Universitas Muhammadiyah Makassar, and the most frequently cited author keywords in pesantren Muhammadiyah articles are
Universitas Muhammadiyah Makassar. The most widely used keyword term by authors is pesantren Muhammadiyah. The findings of this study, the number of publications in pesantren Muhammadiyah increased, and the number of citations decreased.

Keywords: pesantren Muhammadiyah, publication, bibliometric, mapping, journals


Kata kunci: pesantren Muhammadiyah, publikasi, bibliometrik, pemetaan, jurnal

INTRODUCTION

The term pesantren became popular at the beginning of the second half of the twentieth century, specifically before the 1960s. Pondok was the name given to Islamic boarding schools in Java and Madura at the time, derived from the Arabic word funduq, which means hotel or dormitory (Lukens-Bull & Dhofer, 2000). In general, a pesantren is an Islamic educational institution with a dormitory or boarding system, where the kyai is the central figure, the mosque is the center of activity that animates it, and the main activity is the teaching of Islam under the guidance of the kyai (Zarkasyi, 2020).

Nowadays, the number of pesantren in Indonesia is rapidly increasing. The number of pesantren has risen steadily over the last decade, from 28,961 in 2014 to 37,626 in 2022 (http://emispendis.kemenag.go.id/emis_pdpontren/). The qualitative development of pesantren can be seen in a variety of ways, including institutional status (Assa’idi, 2021), administrative arrangements (Basri & Tabrani, 2014), educational program implementation (Nuraeni & Irawan, 2021), scientific peculiarities (Sutomo, 2019), diversification of economic business (Siswanto, 2018; Ryandono, 2018; Zaenurrosyid, 2018), cooperation networks (Amin, 2018; Kusdiana, Lubis, EQ, & Z, 2014; Pribadi, 2014), socio-cultural (Supandi, 2017), Islamic religious (Fauzi, 2012; Pohl, 2006), and health activities (Wijayanti, 2007), and others. Pesantren throughout their history have succeeded in playing their role from time to time and have been able to express to people who can live amid society with various conditions without...
losing their independent identity (Mahrus, 2017; Maunah, 2009; Muazzomi, Sofwan, & Muslim, 2017; Suhendar, Soedjarwo, & Basuki, 2017). The developments have resulted in various expressions of pesantren in national and state lives (Gufron, 2019).

Pesantren’s evolution is linked to their more prominent status role in Indonesian civilization, such as religious, educational, and social institutions. Pesantren is a driving force in Indonesian Islam, and its importance as a religious institution cannot be overstated (Lombard, 2005). The involvement of pesantren in socioeconomic (Fauroni & Quraisy, 2019), political (Azizah, Nkwede, & Armoyu, 2021), and cultural development (Manshur, 2020) demonstrates the expansion of their role as a social institution. Pesantren has also given people access to educational services that will help them advance in life because pesantren, as defined by Minister of Religion Regulation Number 13 of 2014 concerning Islamic Religious Education, are "education units" and "education providers" (Rahmawati, 2017).

The developments of pesantren in terms of numbers, qualitative aspects, and role raises the need to understand the extent of pesantren capacity (Indra, Rusydi, Sutisna, Rahman, & Dedi, 2020). The diversity of pesantren and their expanding role in education, religion, and social affairs are the foundation for the need to accurately measure its ability determine its components theoretically and operationally. Those are fascinating because pesantren education has long been inextricably linked to its role in social aspects (Alam, 2020). As Indonesia’s first Islamic educational institution, the pesantren plays a role as an instrument for the development of the teachings of the Islamic religion, which synergizes with the current conditions of Indonesian society.

Dhofir's research for instance, focuses on the traditional aspects of pesantren, with a particular emphasis on the role of the Kiai in preserving and developing conventional Islamic understanding in Java. That is the study of Islam, which is still strongly linked to the ideas of scholars of fiqh (Islamic law), hadith, interpretation, monotheism (Islamic theology), and Sufism, who lived between the seventh and thirteenth centuries (Dhofier, 2011). In line with previous idea, in the context of Indonesia Madjid (1997) state that pesantren is not only an institution that embodies the meaning of Islam, but it also embodies the meaning of Indonesian authenticity because it is purely Indonesian. It develops from the sociological experience of the community in its environment so that pesantren and its environmental community have close links that cannot be separated.

The focus of pesantren education in Indonesia is on two Islamic models: traditionalist and modernist. At the time of independence, Nahdhatul Ulama (NU) represented the traditionalist Islamic group, while Muhammadiyah represented the moderate group (Azra, 1998; Woodward, 2015). Indonesia’s two largest Islamic organizations’ Islamic identity is becoming stronger due to the educational model they promote: Nahdhatul Ulama is vital in the pesantren area, and Muhammadiyah is enormous in schools.

The expansion of Muhammadiyah pesantren as an alternative education model in the organization, on the other hand, is very encouraging. By 2022, there will be 423 Muhammadiyah pesantren formally registered at the “Lembaga Pengembangan Pondok Pesantren Muhammadiyah" (LP2M) until 2022. The establishment's history
is also varied; some were founded by Central Board of Muhammadiyah, Regional Branch, and even Muhammadiyah figures and alums of Tarjih Muhammadiyah Ulama Education (PUTM) (Kuswandi, 2020). Although the number of Muhammadiyah pesantren is far lower when compared to the number of Muhammadiyah schools, this data shows that the interest, hope, and attention of Muhammadiyah residents towards pesantren education is very high. The expansion and development of several pesantren Muhammadiyah demonstrates a wide variety and style.

Many researchers have written about pesantren Muhammadiyah research. Regarding educational innovation, Mukri’s (2013) research reveals several new trends in Muhammadiyah pesantren in reforming the education system. First, becoming acquainted with modern methodologies; second, becoming oriented towards functional education, implying that it is open to developments outside of itself; and third, program diversification.

Bashori’s (2017) research on the institutional reform of Muhammadiyah pesantren raises two issues: institutional modernization and curriculum. Pesantren compete to establish madrasas as a medium for increasing scientific capacity by the government, whereas curriculum modernization changes pesantren in terms of religious subjects combined with general issues. Miswanto’s (2019) research on regeneration and the role of alums in society discovered that the management of Muhammadiyah pesantren is carried out in both traditional and modern ways. So that alumni who volunteer in the community do not feel awkward and can adapt to any situation because the Islamic values and education they receive are fundamentally aligned with the community’s needs.

Basinun’s (2018) study shows that, first, Muhammadiyah introduced reforms in the form of educational institutions, transforming a pesantren system into a school system. Second, KH Ahmad Dahlan has included general subjects in religious schools or madrasas through Muhammadiyah. Third, in education, Muhammadiyah teaches a more open and tolerant attitude. Fourth, Ahmad Dahlan and his Muhammadiyah successfully established various educational institutions ranging from elementary to tertiary levels, as well as religious and public schools. Fifth, Muhammadiyah successfully incorporated modern education management into the education system it created.

Aside from the vast quantities of literature on pesantren Muhammadiyah published in the last ten years, no extensively declared bibliometric studies in journals indexed by Google Scholar have been published. Illustrations of grouping methods and bibliometric studies that allow an outline of the various sections of pesantren Muhammadiyah appear to be ignored in the existing literature. No bibliometric research of the top-cited articles in the field shows the publications’ steadily increasing quality. As a result, the current study was finished to assess the number of scientific publications associated with pesantren Muhammadiyah overall and to organize a most-cited bibliometric study.

This research is necessary because the bibliography concept has gained relevance in the research field (Julia et al., 2020). Furthermore, separating the number of publications and citations can improve the reliability of this research. The indicators were used to analyse scientific output statistically and qualitatively.
Indicators can also provide the most accurate picture of the state of research development, thereby strengthening scientific policy decision-making. Previous researchers have also considered the importance of bibliographic studies. The article review can aid in data collection by examining highly cited articles and their bibliography rates.

The study’s objective was derived from the significance of such scientific and critical examination. The purpose is to conduct a bibliometric analysis of pesantren Muhammadiyah because these articles are widely regarded as the most visible and prominent publications displaying current academic data, progress, and preferences in the field. By addressing the following problem identification, this article contributes to the mapping process by expounding fundamental bibliometric subtleties of the articles: First, what is the publication trend in pesantren Muhammadiyah research? Second, how has the citation pattern in pesantren Muhammadiyah’s study changed? Third, which journals published the most articles on pesantren Muhammadiyah? Fourth, what is the most famous author keyword in pesantren Muhammadiyah research?

**METHOD**

Publish or Perish Software (PoP) is used as an application to seek the bibliographic database in this research. The PoP application uses Google Scholar (GS) to search bibliographies as a database source. It is used because it has one of the most comprehensive databases of providers of peer-reviewed literature. The bibliography searches are specifically limited to the following aspects: (1) the type of bibliography sought is only in journal format; (2) the title and author keywords sought are aimed at two words, namely “pesantren Muhammadiyah”; and (3) the search year is limited to 2011-2020. (Last ten years), as shown in figure 1.

![Figure 1: Bibliographic search in PoP](image)

The bibliography was chosen and organized for inclusion in the bibliometric analysis. Having the appropriate context of pesantren Muhammadiyah, using Indonesian or English, and being published by established or reputable bibliographic database publishers or providers. Each bibliography that will be included or excluded from the bibliometric analysis process was first validated by tracing it into the Google Scholar database, which was extracted from the PoP application. The only type of bibliography used was a journal bibliography. Some of the bibliographies found during the PoP application’s search process were rejected because they were in the form of
Conference Articles, Magazines, Notes, Editorials, Reviews, or articles without abstracts.

The initial PoP application search results yielded 101 bibliographies. After being chosen, 28 bibliographies were chosen. However, 73 bibliographies could not be determined since they did not meet the predetermined criteria. Table 1 shows the number of bibliographies each year resulting from PoP application searches.

Table 1. Results of Bibliographic Selection

<table>
<thead>
<tr>
<th>Publication Year</th>
<th>Inclusion</th>
<th>Exclusion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>7</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>2019</td>
<td>7</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>2018</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>2017</td>
<td>4</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>2016</td>
<td>2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>2015</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>2014</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2013</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>73</td>
<td>101</td>
</tr>
</tbody>
</table>

The metadata of the filtered bibliography was examined and completed to analyze it. Author names, article titles, author keywords, abstracts, years, volumes, issue numbers, pages, affiliations, countries, number of citations, article links, and publishers are all investigated. Following the completion of the metadata, the bibliometric analysis began.

We performed a bibliometric analysis based on four factors: pesantren Muhammadiyah publication trends, the most cited articles, journals and publishers that publish the most pesantren Muhammadiyah articles, and author keywords that are the most commonly used in pesantren Muhammadiyah articles. The VOSviewer application was used to assist with bibliometric analysis and to visualize the results (Hamidah, Sriyono and Hudha, 2020). VOSviewer was used because of its ability to work proficiently with extensive informational indexes and provide a variety of fascinating visuals, examinations, and investigations. It can also create a publication, author, or journal maps using co-citation systems and keyword maps using shared methods.

RESULT AND DISCUSSION

Analysis Based on Publication Trend

Figure 2 illustrates the number of pesantren Muhammadiyah articles published between 2011 and 2020. Publication trends displayed an ascending pattern, twice a descending pattern, and four times a fixed pattern. In 2012-2013, 2014-2015, 2016-2017, and 2018-2019, the ascending pattern occurred; in 2011-2012 and 2013-2014, the descending pattern occurred; and in 2015-2016 and 2017-2018, the fixed way happened. The entire year has no publication in 2012 or 2014, with the most publication occurring...
in 2019-2020. As a result, publications on pesantren Muhammadiyah have increased significantly in recent years.

**Figure 2. Yearly publication trend**

![Yearly publication trend graph](image)

**Analysis of the Most Cited Articles**

Figure 3 shows that the total number of citations per year from 2011 to 2020 was 39. The citation pattern consisted of four descending patterns, three ascending patterns, and two fixed patterns. In 2011-2012, 2013-2014, 2017-2018, and 2019-2020, the descending pattern occurred; in 2012-2013, 2014-2015, and 2018-2019, the ascending pattern occurred; and in 2015-2017, the fixed way occurred. When viewed over the course of the year, 2019 had the most citations and 2012 and 2014 had the fewest. As a result, the overall citation pattern decreased from 2011 to 2020.

**Figure 3. Citations per year**

![Citations per year graph](image)
The article by Z Abidin (Title: Manajemen Pesantren Dalam Menumbuhkan Kesadaran Beragama Mahasiswa: Studi di Pesantren Mahasiswa Al Manar Universitas Muhammadiyah Ponorogo) is ranked first with six citations as shown in table 2 of the ten most cited articles. The second rank is the article by M. Anis (Title: Implementasi Wawasan Kebangsaan di Pondok Pesantren dalam Pembelajaran Sejarah di SMA Al-Muayyad Surakarta dan SMA Muhammadiyah Boarding School Yogyakarta) with five citations. Meanwhile, the last place is occupied by the article by A. Miswanto (Title: Peran Pesantren dalam Melahirkan Kepemimpinan Muhammadiyah: Analisis Historis Terhadap Profil Ketua Umum Pimpinan Pusat Tahun 1912-2020) with one citation.

Table 2. Top ten of the Most Cited Articles

<table>
<thead>
<tr>
<th>No</th>
<th>Author(s)</th>
<th>Article Title</th>
<th>Year of Publication</th>
<th>Number of Citation</th>
<th>Journal Name</th>
<th>Publisher/Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Z Abidin</td>
<td>Manajemen Pesantren Dalam Menumbuhkan Kesadaran Beragama Mahasiswa: Studi di Pesantren Mahasiswa Al Manar Universitas Muhammadiyah Ponorogo</td>
<td>2016</td>
<td>6</td>
<td>Al-Idarah: Jurnal Kependidikan Islam</td>
<td>UIN Raden Intan Lampung</td>
</tr>
<tr>
<td>2</td>
<td>M Anis</td>
<td>Implementasi Wawasan Kebangsaan di Pondok Pesantren dalam Pembelajaran Sejarah di SMA Al-Muayyad Surakarta dan SMA Muhammadiyah Boarding School Yogyakarta</td>
<td>2017</td>
<td>5</td>
<td>Jurnal Sriwijaya Historia</td>
<td>Universitas Muhammadiyah Palembang</td>
</tr>
<tr>
<td>5</td>
<td>A Miswanto</td>
<td>Eksistensi Pesantren Muhammadiyah dalam Mencetak Kader Persyarikatan (Studi di Kabupaten Magelang)</td>
<td>2019</td>
<td>3</td>
<td>Jurnal Tarbiyatuna</td>
<td>Universitas Muhammadiyah Magelang</td>
</tr>
<tr>
<td>6</td>
<td>S Romadlan</td>
<td>Rekayasa Sosial (Social Engineering) Adopsi Teknologi Komunikasi (Internet) di kalangan</td>
<td>2015</td>
<td>3</td>
<td>Jurnal Maqra</td>
<td>Universitas Muhammadiyah Prof. Dr. Hamka</td>
</tr>
</tbody>
</table>
Table 3 shows that the Universitas Muhammadiyah Makassar (Unismuh) was the most publisher in pesantren Muhammadiyah articles. There were four journals published by Unismuh, namely the Al-Maraji': Jurnal Pendidikan Bahasa Arab; Jurnal Al-Nashihah; Jurnal Komunikasi dan Organisasi J-KO, and TARBAWI: Jurnal Pendidikan Agama Islam (Afni, Pratama, & Koadhi, 2020; Ferdinan & Ibrahim, 2018; Ilham & Tadjuddin, 2017; Wulur & Hoirunisa, 2019). Each journal has published one article. Meanwhile, the second place was occupied by Universitas Muhammadiyah Magelang (Unimma). There was one journal published by Unimma, namely the Jurnal Tarbiyatuna which has published three articles (Miswanto, 2019, 2020; Miswanto, Nugroho, Suliswiyadi, & Kurnia, 2019). The third place was occupied by Universitas Muhammadiyah Malang (UMM), which published the Jurnal Dedikasi with only two articles (Malik et al., 2011).
Table 3. The Top Three Published Journals of Pesantren Muhammadiyah article

<table>
<thead>
<tr>
<th>No.</th>
<th>Publisher</th>
<th>Total Articles</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Universitas Muhammadiyah Makassar (Unismuh)</td>
<td>4</td>
<td>Al-Maraji’; Jurnal Pendidikan Bahasa Arab; Jurnal Al-Nashihah; Jurnal Komunikasi dan Organisasi J-KO; TARBAWI: Jurnal Pendidikan Agama Islam</td>
</tr>
<tr>
<td>2</td>
<td>Universitas Muhammadiyah Magelang (Unimma)</td>
<td>3</td>
<td>Jurnal Tarbiyatuna</td>
</tr>
<tr>
<td>3</td>
<td>Universitas Muhammadiyah Malang (UMM)</td>
<td>2</td>
<td>Jurnal Dedikasi</td>
</tr>
</tbody>
</table>

Analysis Based on Author Keyword

Of the 43 authors, four authors had strong associations. Figure 4 and table 4 show that the author's collaboration is just red cluster. Each author in cluster has two links.

Table 4. Author Clusterization

<table>
<thead>
<tr>
<th>Cluster colour</th>
<th>Authors</th>
<th>Number of documents</th>
<th>Number of links</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Malik, ia</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Sutanto, ia</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Masmuh. A</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Widodo, iw</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Figure 4. Network Visualization of Author Keywords
Analysis Based on Title Terms

Of the 293 terms, using a minimum number of occurrences of three terms, 15 results were found to be relevant. Table 5 and Figure 5 show that the terms widely used in pesantren Muhammadiyah articles are divided into four clusters. Cluster one
consists of six items, cluster two consists of five items, cluster three and four consist of two items.

Table 5. The Most Used Title Term in Pesantren Muhammadiyah Articles

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Colour</th>
<th>Number of Item</th>
<th>Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>6</td>
<td>Internet, Jakarta, mbs, pondok pesantren, pondok pesantren Muhammadiyah, Yogyakarta</td>
</tr>
<tr>
<td>2</td>
<td>Green</td>
<td>5</td>
<td>Islam, pesantren, Indonesia, education, culture</td>
</tr>
<tr>
<td>3</td>
<td>Blue</td>
<td>2</td>
<td>Lamongan, pesantren Muhammadiyah</td>
</tr>
<tr>
<td>4</td>
<td>Yellow</td>
<td>2</td>
<td>Mts, Muhammadiyah</td>
</tr>
</tbody>
</table>

Figure 7. Network Visualization of Title Terms of Pesantren Muhammadiyah

Finding Based on Empirical Studies

Several conclusions can be drawn from the data gathered from existing articles, including:

1. Pesantren Muhammadiyah as a means of integrating science and religion, culture, and intellectual, emotional, and spiritual well-being.
2. Pesantren Muhammadiyah incorporates national values and insights into its curriculum and learning implementation plans.
3. Cadre education is one of the goals of establishing pesantren Muhammadiyah across Indonesia.
4. Cadre education in pesantren Muhammadiyah focuses on religious and general aspects of monotheism, personality, independence, and science.
5. The model of Pesantren Muhammadiyah combines a modern school system and a boarding school.
6. Pesantren Muhammadiyah with madrasa system is a modernization of traditional education system pesantren.
7. The Muhammadiyah pesantren with an Islamic Boarding School system is a reconstruction of the traditional Muhammadiyah school system, also known as "postmodernization of Muhammadiyah schools."

8. The Muhammadiyah pesantren with the Takhassus system (Ma'had ly) is a neo-postmodernism of the Muhammadiyah pesantren with the Islamic Boarding School system as a result of an integral elaboration of the traditional pesantren education system with the higher education system.

9. Non-academic activities at Pesantren Muhammadiyah significantly contribute to students' social maturity.

DISCUSSIONS AND CONCLUSIONS

This research yielded four themes, which are discussed below. Over the last ten years, the trend in publishing articles on pesantren Muhammadiyah has generally increased, beginning with one article (2011) and ending with 28 articles (2020). The article publication decreased for two years, in 2012 and 2014. At the same time, there was an increase in other years from 2011 to 2020. Compared to previous years, 2018 to 2020 published the most pesantren Muhammadiyah articles, a total of 4-7 articles. The trend of the publication of pesantren Muhammadiyah articles from 2011-2020 can be illustrated by a descending-ascending-descending-ascending-ascending pattern. At the same time, this trend showed that Indonesian researchers are becoming increasingly interested in studying pesantren Muhammadiyah. Publication trends also revealed the evolution of the authors' direction and interest in the field in which they work.

The situation was analyzed by obtaining the number of citations per article per year from the PoP application. The citation is essential in publishing because it can be used to determine the impact of a publication (Masic, 2013; Santini, 2018). Citation patterns in pesantren Muhammadiyah articles showed a descending-ascending-descending-ascending-descending pattern from 2011 to 2020. It began with two citations (2011) and ended with 39 citations (2020). The highest three years in terms of citations were 2015, 2017 (six citations), and 2019 (ten citations). As a result, the year with the most citations were 2019. Meanwhile, there was a significant reduction in the number of citations between 2012 and 2014, with 0 citations. The most cited articles were published in 2014, and they were written by Abidin, who received a total of 6 citations.

The Jurnal Tarbiyatuna held the top spot in the category that published the most articles on pesantren Muhammadiyah (three articles). Meanwhile, Universitas Muhammadiyah Makassar was the first publisher to publish pesantren Muhammadiyah articles (Unismuh). Unismuh published four journals: Al-Maraji': Jurnal Pendidikan Bahasa Arab; Jurnal Al-Nashihah; Jurnal Komunikasi dan
Organisasi J-KO; and TARBAWI: Jurnal Pendidikan Agama Islam, each of which published only one article.

The search results revealed 43 author keywords that were used in selected articles. Only four authors' keywords have strong connections when analyzed using the VOSviewer application using two occurrences. The author's keyword analysis was shown in three ways: network, overlay, and density visualization. Overlay and density visualization analysis are used to differentiate critical topics in each investigation or scope of information and are accomplished by calculating the co-occurrence of keyword pairs. The keyword of author yielded only one cluster with four documents written by four authors. As shown in Figure 7, the term "Muhammadiyah" is the most dominant or frequently used by authors, followed by the terms "pesantren" and "pesantren Muhammadiyah." Those indicated that the authors in the article tended to use terms from the article's main topic.

Finally, the fourth question posed at the outset can be answered and concluded as follows. The publications have formed a pattern of descending-ascending-descending-ascending, with a trend of higher publications in 2019 and 2020. The citation of pesantren Muhammadiyah articles has formed a pattern of descending-ascending-descending-ascending-descending, with the number of citations reaching the highest peak in 2015 and 2017 while experiencing a drastic decline from 2012 and 2014. The most widely published journal of pesantren Muhammadiyah articles is occupied by the Jurnal Tarbiyatuna, which has published three articles. Meanwhile, Universitas Muhammadiyah Makassar published the most pesantren Muhammadiyah articles, with four published in four journals. Muhammadiyah is the most commonly used term by the author as the author keywords in the article within the area of pesantren Muhammadiyah, followed by pesantren and pesantren Muhammadiyah.

Limitations
The following limitations apply to this study: first, the database used for searching articles was limited to Google Scholar; second, the software used to analyze bibliometrics was only Publish or Perish and VOSviewer; and third, the bibliography is only included in the type of articles based on the information displayed by Google Scholar. As a result, future research on this topic may be able to use multiple sources or databases, other bibliometric analysis software, and other types of writing such as book chapters, seminar proceedings, and review papers to broaden the scope of the research.

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