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Mosque Library: Bibliometrics Analysis Based on Web of Science (WOS) Database

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Abstract

Throughout history, mosque libraries have played a critical part in the advancement of civilization. From an economic perspective, the advancement of civilization in terms of education and welfare cannot be separated from the existence of libraries. The purpose of this study is to determine the extent of the development of the mosque library literature using bibliometric tools (RStudio with "biblioshiny" and Vosviewer) based on the Web of Science (WOS) database. This study shows patterns of co-authorship, document citations, keyword co-occurrence, and thematic evolution. We demonstrate the literature's influence by examining its document type, yearly publishing rate, journals, and research area. The evaluation of research on mosque library includes 73 documents by 154 authors affiliated with 79 organizations in 20 countries. The most commonly used word in mosque library research is "mosque." The papers published cover the fields of Information Science Library Science. This study is expected to provide a detailed bibliometric analysis of the mosque library's evolution.

Keyword: *Mosque Library, Bibliometric, WOS, Biblioshiny, VOSviewer*

1. Introduction

In historical development, mosque libraries play an important role in the development of civilization. The advancement of civilization in terms of education and welfare from an economic standpoint is inextricably linked to the existence of libraries. In terms of education, Islamic civilization has occasionally contributed to sustainable growth. Due to the scientific achievements of Muslims, Islamic civilization was the most dominant in the world for at least five centuries (Hitti, 1974), and so these ages are referred to as the golden age of Islam. Numerous researchers, including Hill (1993), Kneller (1978), and Sarton (1927), have recognized the accomplishments of scholars in the field of science (Nasr, 1968).

According to Rifai & Subchi (2020), the role of learning institutions such as libraries affected the development of science during the classical or medieval Islamic periods. There were a number of significant learning institutions throughout the Islamic Golden Age that were previously unknown to the ancient

world, dating all the way back to the medieval Islamic world, with the most prominent examples being mosques, halaqas, madrasas, and libraries. Micheau (1996) asserts that Islamic libraries during the classical period modeled themselves after modern libraries. The library, like previous ancient libraries, not only collects books and manuscripts, but also serves as a public library and lending library, a center for learning and knowledge dissemination, a public space for meetings and discussions, and is equipped with dormitory facilities for students or female students (Laugu, 2005). The concept of a library catalog was also adopted in medieval Islamic libraries, where books were classified according to their subject matter (Laugu, 2007).

One of the most interesting aspects of Muslim libraries is the breadth of their subject offerings. With the exception of different religious works, Muslims collected, copied, and translated everything they could get their hands on, in all subjects, from all periods, and in all available languages. The transfer of power that occurred in the Islamic region in the hands of the Caliphs and the Kingdom did not hinder the development of libraries. There are even differences in the level of library development, which is determined by the amount of public interest in science at that time (Elmer D. Johnson, 1982).

While the evolution of research into Islamic libraries is fascinating to observe, some academics focus exclusively on the literature side, such as Rahmawati (2012), Rifai & Subchi (2020), and Surtikanti (2018). Whereas there is currently a dearth of research mapping in terms of the mosque library's development. Therefore, we identify a potential need for study through mapping, specifically employing bibliometric analysis, for the growth of research related to the mosque library.

The following section is a review of previous studies that have been correlated with mosque libraries. Then comes the method used in the study. The next session is an analysis using bibliometric tools, and then we provide a conclusion.

2. Literature Review

A mosque library is one of the kinds of Islamic libraries. Throughout Islamic history, libraries grew alongside the rise and construction of mosques (Antonio et al., 2021). According to Krek in Rifai & Subchi (2020), the Al-Azhar Mosque library was a well-known Islamic library in the ninth century. Additionally, there were huge libraries, such as those in Al-Unawi Mosque in Damascus, Al-Mansour and

Al-Kamariah Mosques in Baghdad, AlZaitunah Mosque in Tunis, Al-Masjid AlJame'a Mosque in Merv, and Mecca and Medina Mosques.

Mosque libraries have been involved in and contributed to the development of Islamic civilization and scientific pioneering throughout the world, with mosque libraries playing a vital role due to their control over the "mosque." The following are some of the critical functions or roles of mosques in establishing a vibrant society, both religiously and globally, as well as spiritually and physically.

- 1) The Mosque as a Place of Worship. In these activities, Muslims must conduct themselves properly by adhering to particular standards based on Islamic rituals. To get a thorough grasp of these Islamic ritual practices, institutional processes are emphasized, whether through teachers or self-study of the Qur'an and Hadith, for example. The mosque library appears to house these resources in order to aid Muslims in their educational endeavors.
- 2) The Mosque as a Community Center. In terms of the mosque's position as a community center, nearly all Islamic social events occur in the mosque. As a result, group members felt it was critical to provide diverse collections in mosques, referred to as mosque libraries, to facilitate autonomous learning and information searching within the Muslim community's mosques. This will make it easier for them to obtain information about religion as well as social issues.
- 3) The Mosque as an Educational Institution. The mosque has long been regarded as a vital educational and religious center. Both positions have been played consistently throughout Islamic history, notably under the Umayyad and Abbasid dynasties. When Islam was initially spread, mosques were constructed to house educational activities, both religious and non-religious, that were common in early Muslim cultures. During the early stages of the creation of Islamic societies, the fundamental level of education was given by teachers who taught in mosques. Mackensen in Laugu (2007) demonstrates that numerous books were offered and truly sanctified in early Islamic history by numerous bibliophiles and scientists. As such, they contribute to the collection of mosque libraries located around the Muslim world. Such "book waqf" is frequently performed because book owners believe it is an effective strategy to protect their private collections while allowing public access. As such, it is critical to remember that not all mosques have their collections; instead, they are typically tasked with serving as a liaison between the collection's owner and its users.

3. Method

This study uses bibliometric analysis to compile quantitative data on mosque library research patterns. Bibliometric analysis is a well-established quantitative technique for examining the publishing patterns of scholarly works. It is frequently used in library and information science research to evaluate publishing trends and patterns connected with specific themes. The advantage of the bibliometric review is that it is an objective process that evaluates all published articles on a certain topic, thereby removing possible selection biases (Paltrinieri et al., 2020). In November 2021, all research papers were extracted from the Web of Science (WOS) database. WOS is one of the most significant peer-reviewed and legitimate scientific literature indexing and abstracting databases. We chose WOS over other databases, such as Scopus and Google Scholar, due to the scarcity of information from mosque libraries in those databases.

This study examines just articles, proceedings, and book reviews. We use the term "mosque library" or "mosque as a library," which returns 98 results. We limited our data selection to documents written in the English language, which resulted in a total of 73 documents spanning the years 1981 to November 2021. We analyze the data using RStudio with "biblioshiny" (Aria & Cuccurullo, 2017), a user-friendly graphical interface for conducting bibliometric tests. We also examine the pattern of publication development at the mosque library by creating visualization networks with VOSviewer (van Eck & Waltman, 2010) and generating editable tables and figures with Ms. Excel. VOSviewer is a tool for constructing and visualizing bibliometric networks based on citations, bibliographic coupling, co-citations, or co-authorship.

4. Result and Discussion

The following table summarizes the collection of documents used in the research on mosque libraries. The classification of the 73 publications used includes three sorts of documents: journal articles (51), proceedings (12), and book reviews (10). According to Table 1, the most frequently used document type as a research subject in the mosque library is papers in journal articles, which account for 70 percent or 51 documents. However, the least-used documents are in the form of book reviews, by a percentage of 13 percent, or ten documents. Since most references come from scientific journals, this demonstrates that the references used are highly valid.

Table 1. Document Types

No	Document Types	Number of Articles
1	Journal article	51
2	Proceedings	12
3	Book Reviews	10
Total		73

Trends in mosque library publishing

The chronological distribution of publications on the subject of mosque library literature is depicted in Figure 1. It indicates that the initial article was published in 1981 and has received six citations. However, the first notable publication occurred in 1992, garnering 12 citations.

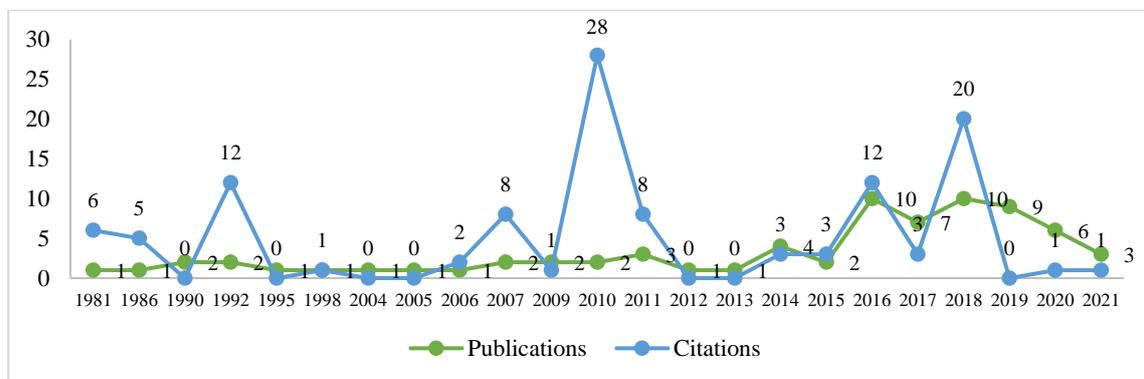


Figure 1. Distribution of Mosque Library Literature Over Time

Publications increased between 2016 and 2020. Other years showed little progress, with the number of publications remaining between one and three. Citations from publications peaked in 2010, when there were 28 citations from two documents.

Table 2. Top-5 Research Areas

No	Research Areas	Number of Articles
1	Information Science Library Science	13
2	Humanities Multidisciplinary	11
3	Religion	8
4	Art	6
5	Environmental Sciences	5

Table 2 shows the most preponderance publications based on the research area. The majority of publications (18 percent) were in the field of Information Sciences and Library Sciences, followed by Humanities Multidisciplinary (15 percent), Religion (11 percent), Art (8.22 percent), and Environmental Sciences (6.85 percent).

The most relevant journals publishing mosque library literature

Table 3 lists the top five journals that publish research on mosque libraries. Library Journal published six articles on the mosque library, followed by Bagh-e Nazar, which published five publications.

Table 3. Top-5 journals publishing mosque library research

No	Journal	Number of Articles
1	Library Journal	6
2	Bagh-e Nazar	5
3	Turkish Online Journal of Design Art and Communication	3
4	Libraries Culture	2
5	Tarih Kultur ve Sanat Arastirmalari Dergisi-Journal of History Culture and Art Research	2

Additionally, the Turkish Online Journal of Design Art and Communication has three publications, while Libraries Culture and Tarih Kultur ve Sanat Arastirmalari Dergisi-Journal of History Culture and Art Research each published two publications. More details can be seen in Figure 2 below.

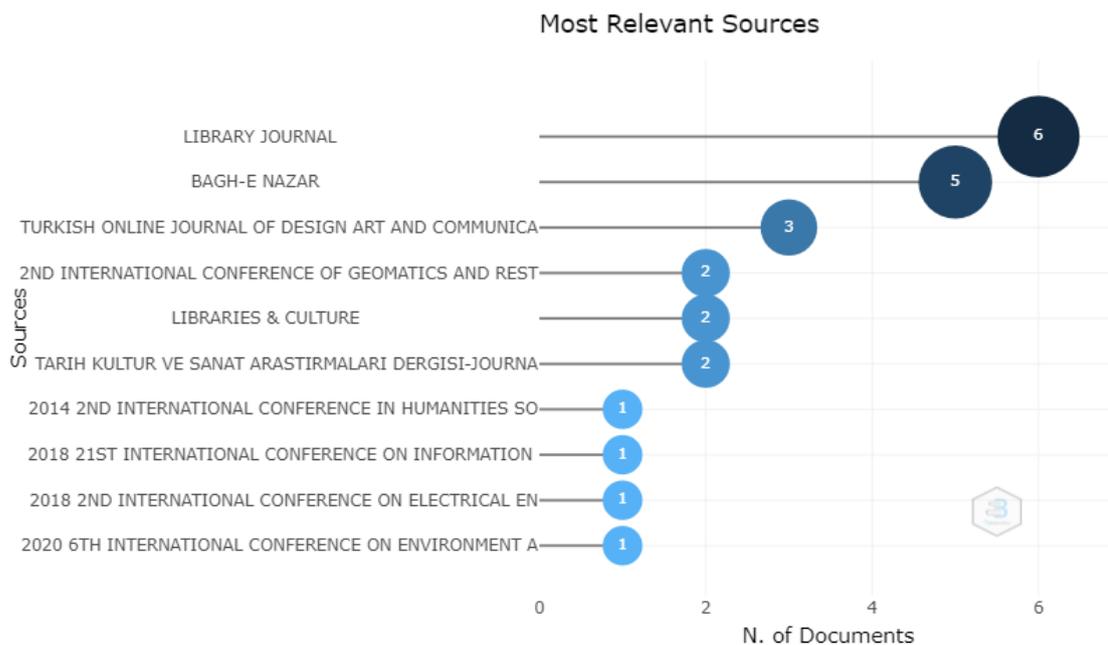


Figure 2. Most Relevant Sources of Mosque Library Research

Bibliometric Visualization Analysis

To map and analyze bibliometric data, this study employs RStudio “Biblioshiny” and VOSviewer. The following are the findings from the bibliographic mapping of the mosque library literature.

Co-Authorship Analysis

Co-authorship Authors

The co-authorship visualization identifies the authors who worked on the mosque library and acknowledges all authors who contributed to the research. We demonstrated co-authorship through the use of the VOSviewer program (Figure 3). The larger the form and the more vibrant the color, the more articles on the author's mosque library. Additionally, co-authorship specifies whether the authors did the research separately or collaboratively.

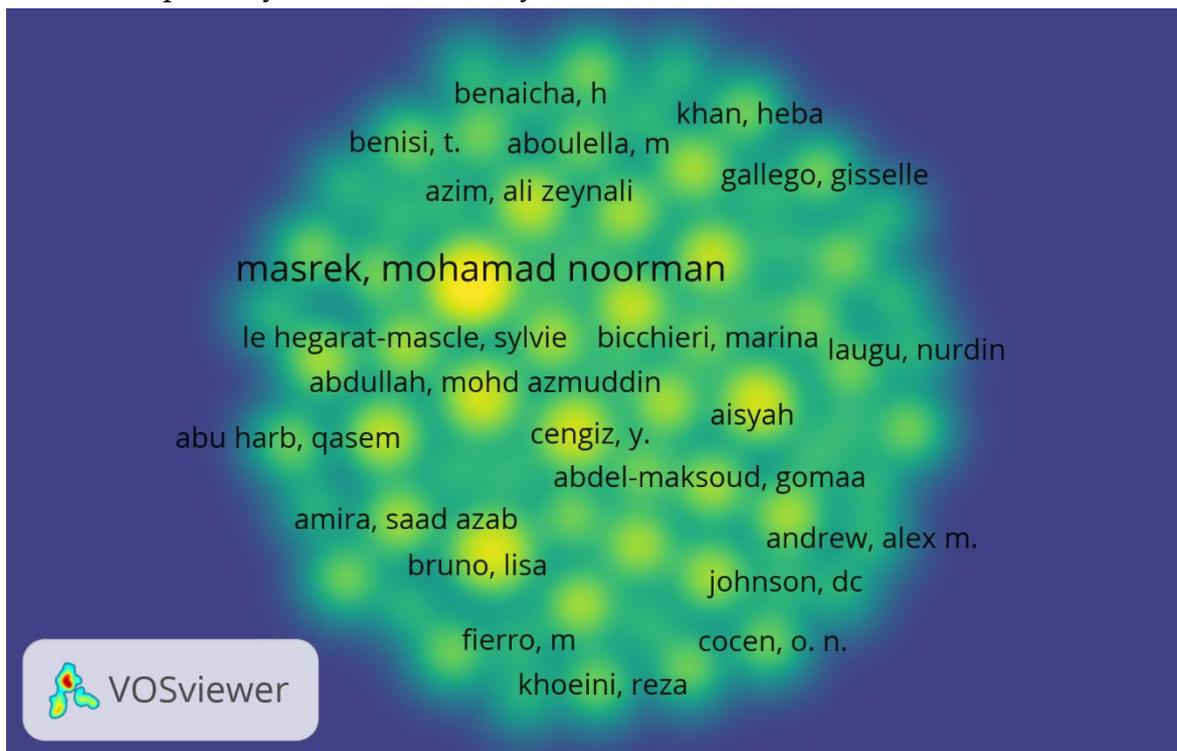


Figure 3. Network Visualization of Key Authors

As illustrated in Figure 3, the author's name, Masrek MN, is becoming increasingly larger and brighter, indicating the more significant number of publications he has authored. There is no social network of researchers working on mosque library literature shown. Table 4 lists the authors with the most publications.

Table 4. The highest contributors in mosque library research

No	Author	Affiliations	Number of Articles
1	Masrek MN	Universiti Teknologi MARA	2
2	Noordin SA	Universiti Teknologi MARA	2
3	Mohamad AN	Universiti Teknologi MARA	2
4	Sani MKJA	Universiti Teknologi MARA	2
5	Mansour E	South Valley Univ SVU	2

Co-authorship Affiliations

Figure 4 illustrates how productive institutional clusters, denoted by bright circles, produce articles on the subject of mosque libraries. The published articles represented a total of 79 institutions. As illustrated in Figure 4, Islamic Azad University is the most productive institution that contributes to publishing papers on the theme of the mosque library. Therefore, the top 5 institutions were Islamic Azad University (six documents), the University of Tehran (three documents), Ankara University (two documents), Cairo University (two documents), and Egyptian Knowledge Bank EKB (two documents). The result of bibliometric mapping also revealed that the Egyptian National Library had the highest total link strength (five), followed by Al Azhar University (four), Islamic Azad University (four), King Khalid University (four), and Universiti Malaysia Pahang (four).

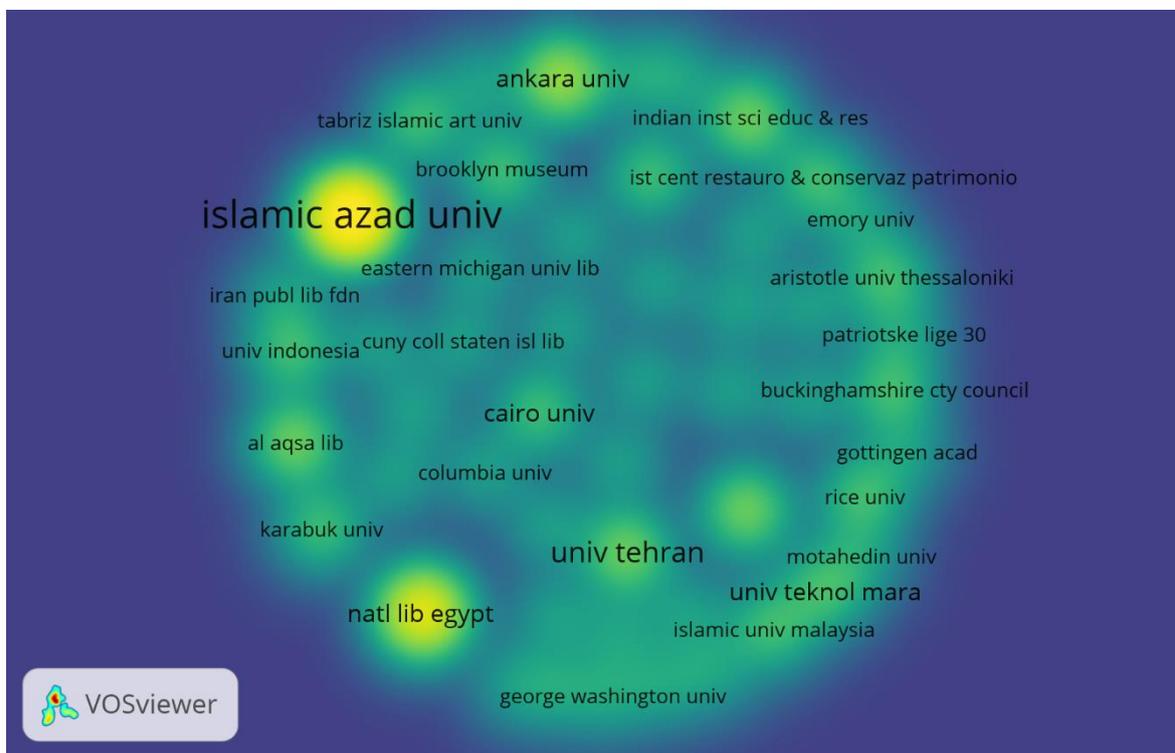


Figure 4. Network Visualization of Affiliation

Co-authorship Country

Table 5 summarizes the most productive countries in terms of mosque library research. As illustrated in Figure 5, the result of Vosviewer mapping also reveals several clusters of countries that appear to publish the most articles on the subject of mosque libraries.

Table 5. Top-5 countries publishing mosque library research

No	Journal	Number of Articles
1	Iran	20
2	USA	19
3	Turkey	6
4	Egypt	5
5	England	4

The larger the circle of publishing countries, the more articles the country publishes. As illustrated in Figure 5, Iran appears to have the brightest light. This indicates that Iran publishes the most publications on the subject of mosque libraries in comparison to other countries. However, there is no network between countries working on mosque library literature shown.

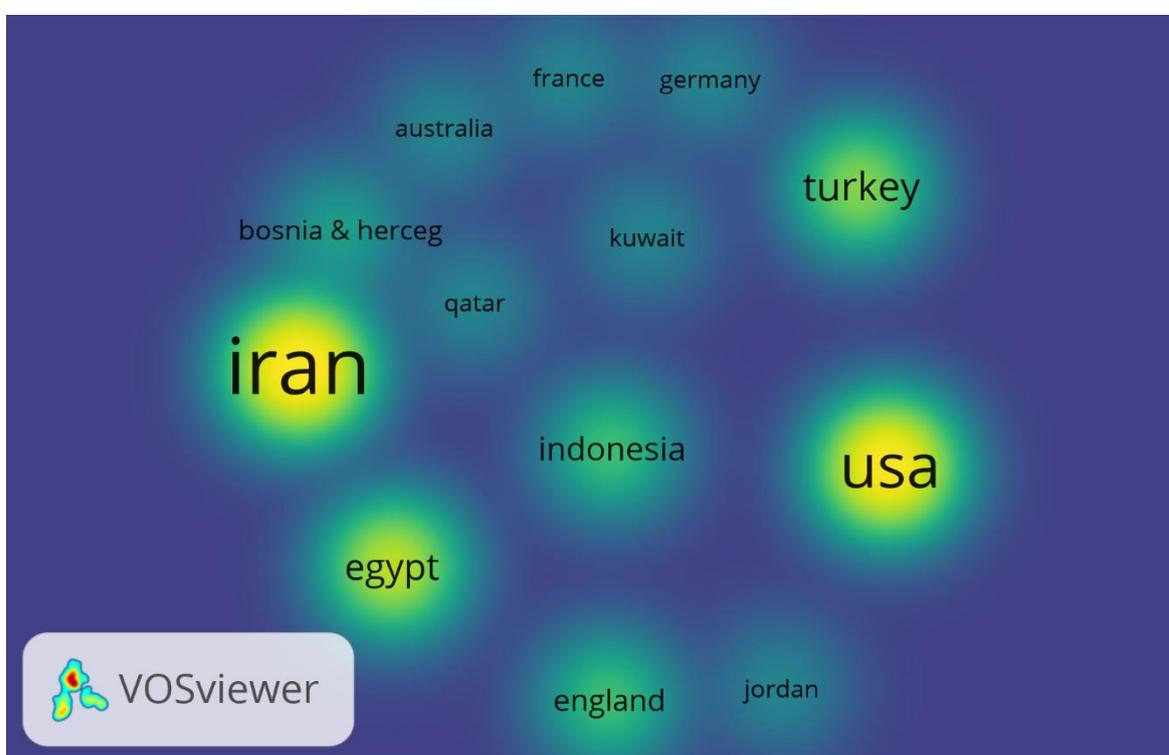


Figure 5. Network Visualization of Country

Citations Analysis

According to the Vosviewer, the citation analysis represents the total number of citations received by a source, author, organization, or country in a given period. The identification of mosque library research through bibliometric citations is illustrated in Figure 6.

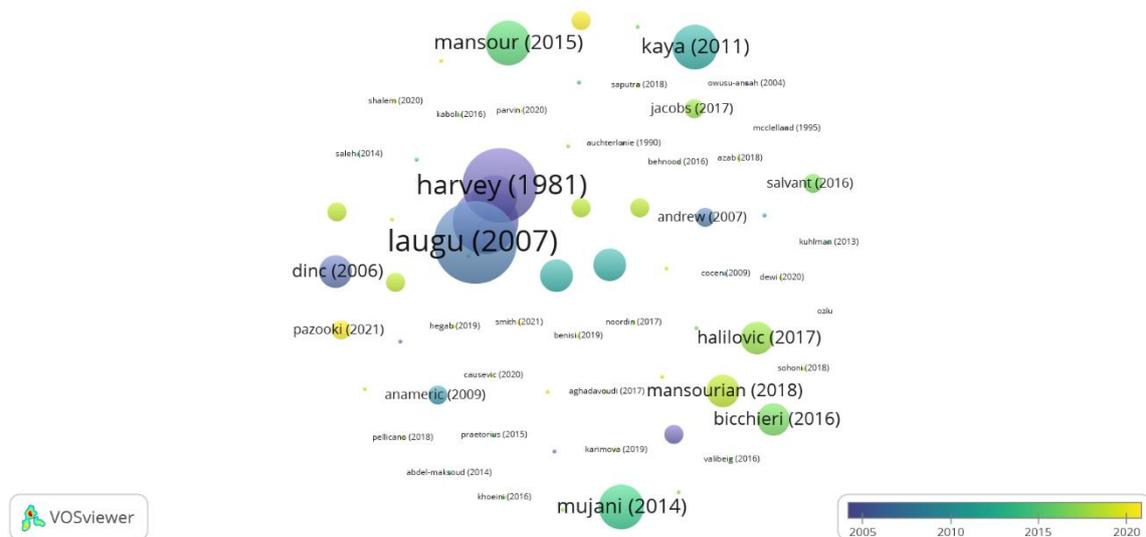


Figure 6. Network Visualization of Citation

Furthermore, the list of the five most-cited research documents is presented in Table 6. Figure 6 shows that Laugu has a larger circle, which indicates it has more citations than other authors. The document "The Roles of Mosque Libraries through History" by Laugu (2007) in *Al-Jami'ah: Journal of Islamic Studies* received seven citations.

Table 6. The Top-5 cited Publications in Mosque Library Research

No	Authors/Year	Title	Journal	Citations
1	(Laugu, 2007)	The Roles of Mosque Libraries through History	<i>Al-Jami'ah: Journal of Islamic Studies</i>	7
2	(Harvey & Musavi, 1981)	Tehran mosque libraries and a comparison with American Christian church libraries	<i>International Library Review</i>	6
3	(Benaicha, 1986)	Mosques as libraries in Islamic civilization; 700-1400 A.D.	<i>The Journal of Library History</i>	5
4	(Taher, 1992)	Mosque Libraries: A Bibliographical Essay	<i>Libraries & Culture</i>	3
5	(Mansour, 2015)	The information-seeking behavior of mosque speechmakers (MSs) in the state of Kuwait	<i>Library Review</i>	3

The next most cited document is "Tehran Mosque libraries and a comparison with American Christian church libraries" by Harvey & Musavi (1981), which received six citations. The third and fourth articles obtained five and three citations, respectively, entitled "Mosques as libraries in Islamic civilization; 700 – 1400 A.D." by Benaicha (1986) and "Mosque Libraries: A Bibliographical Essay" by Taher (1992).

Co-Occurrence of Keywords Analysis

The co-occurrence of keywords is taken into account to evaluate the frequency of words organized adjacently in articles.



Figure 7. Keyword occurrence and connectivity

Figures 7 and 8 illustrate the keyword analysis and tree map of the mosque library. Both Figures 7 and 8 show that "mosque" is the keyword most commonly used in mosque library research. The mapping findings in Figure 7 have been categorized into four distinct clusters denoted by different colors (red, blue, green, and yellow).

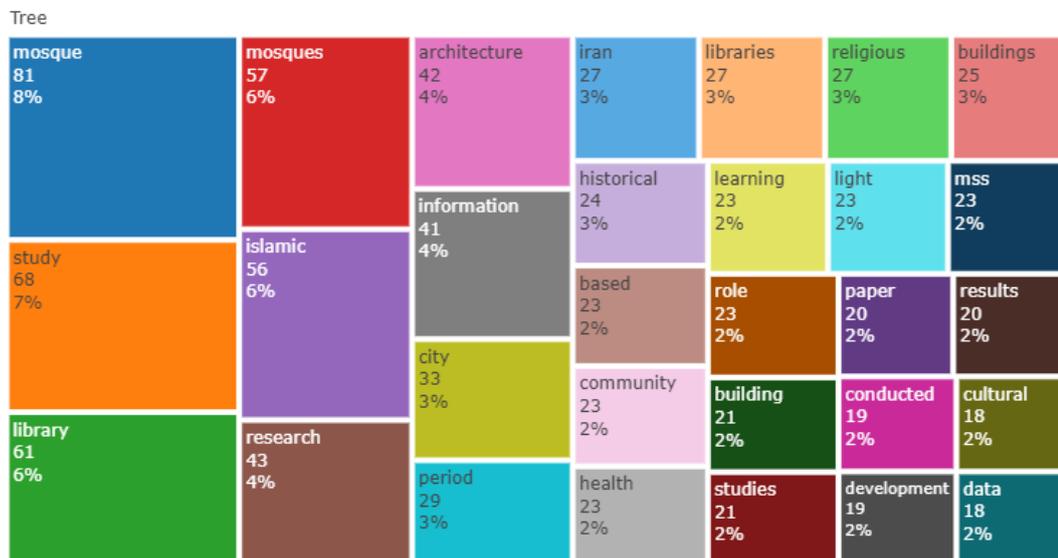


Figure 8. Tree map for top 30 keywords

The blue nodes are mosque, mosque libraries, Islamic libraries, Muslim libraries, imam mosque, wakil mosque, and Islamic history. The green nodes are Islam, Muslims, Muslims in the west, religious law, the first hijra, the prophet Muhammad, information needs, information sources, information-seeking behavior, mosque speechmakers. The yellow nodes are endowment and waqf. The

red nodes are madrasa, ottoman, kulliye, caliph, calligraphy, cami, dome, hammam, mihrab, mimar, prayer hall, qibla, Sultan, and zakat. In addition, based on the tree map in Figure 8, the most used keywords are mosque (eight percent), study (seven percent), library (six percent), mosques (six percent), and Islamic (six percent).

Thematic Evolution Analysis

We employ additional analysis using the bibliometric R-package to improve the quality of our results. We classify additional themes based on their centrality and density using the thematic map function included in the R package. Figure 9 illustrates the quadrants using a thematic map. Centrality can be defined as the subject's significance in relation to the overall research field and density can be interpreted as a proxy for a subject's development.

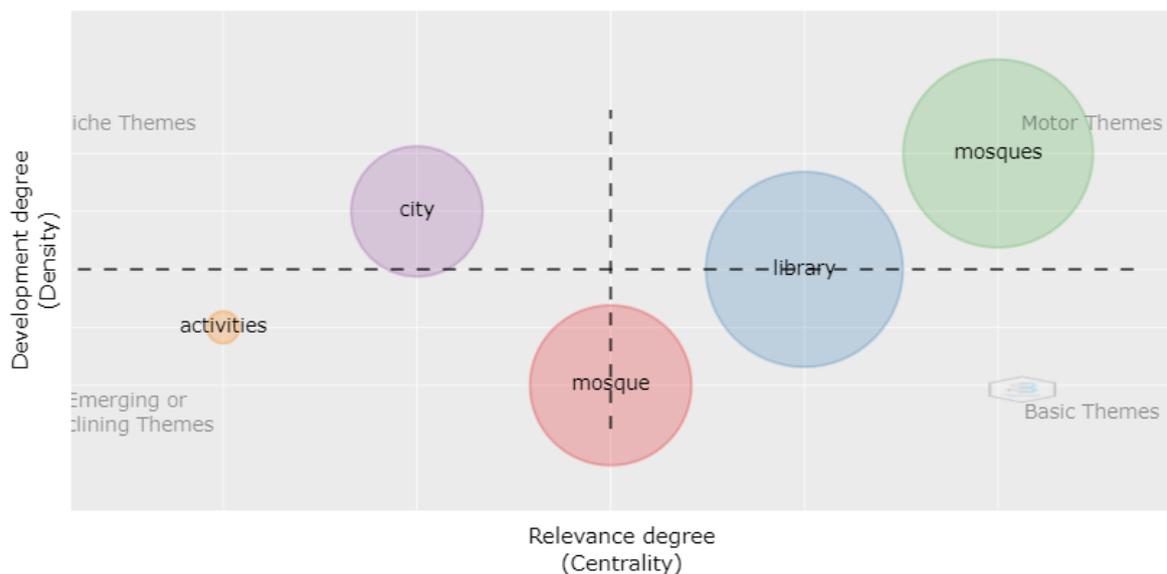


Figure 9. Thematic map of mosque library literature

As illustrated in Figure 9, the theme "city" is in quadrant-I or a specialized theme with high density and low centrality. "Mosques" located in Quadrant-II, or motor theme, have high density and high centrality. Then, "library" occupies a position between Quadrant-II (motor theme) and Quadrant-III (basic theme). "Mosque", implying a position between Quadrant-III (basic theme) and Quadrant-IV (emerging or isolated). "Activities" are in Quadrant-IV (emerging or isolated).

Discussion

Based on bibliometric results, we found research trends related to the mosque library. Referring to the distribution of mosque library literature over time, it explains interpretatively that the distribution of publications starting from 1981 to 2021 experienced a slight increase, the most significant increase occurring in 2016, and has continued to decline until now. Furthermore, the discussion regarding the mosque library in WoS is more centralized in the Information Science Library Science research areas. Library Journal is the journal that publishes the most published documents, which are corroborated with the most relevant sources from mosque library research.

Furthermore, on the co-authorship side, Masrek MN, Noordin SA, Mohamad AN, Sani MKJA, and Mansour E are the ones who published the most research publications for mosque libraries. By territory, the country that contributed the most to mosque library research was Iran, followed by the USA and Turkey. In terms of citations, the document entitled "The Roles of Mosque Libraries Through History" by Laugu (2007) received the highest number of citations.

According to co-occurrence analysis, keywords related to "mosque," "Islam," "library," and "waqf" appear often. The role of the mosque as a library is an exciting topic to discuss further. This is because a mosque is well known as a prayer place. However, in Islamic history, the function of the mosque was not only to pray but could also be used for the learning center, Baitul Malwa Tamwil, and the library. Previous research by (Laugu, 2007) highlights the critical role of mosque libraries. Throughout the history of Islamic culture, mosque libraries have played a significant role in various circumstances during Islamic creation. The mosque libraries have been extensively established to assist in all activities organized by their primary institutions, the mosques. They have highly developed operational systems and defined operational processes that enable them to tailor their services to the demands of their patrons. Natural disasters such as earthquakes and floods can significantly impact the continuity of mosque library collections.

5. Conclusion

Based on the Web of Science database, this paper summarizes the most influential papers, authors, organizations, and countries in mosque library research. We conducted this research utilizing the RStudio and VOSviewer software apps. We began by examining the publication structure in this field. As of November 2021, there are 73 papers on this topic written by 154 authors. This figure has expanded

significantly over the last decade, with Iran leading the way for authors publishing in this field. The institution that publishes the most papers related to mosque libraries in Islamic Azad University. All of the sources listed in this literature contribute to the enrichment of information and the Islamic scientific library.

This study is beneficial for academics who wish to continue doing scientific research on mosque libraries, mainly through bibliometric results, for instance, by utilizing common keywords and indexing references according to the most popular authors, institutions, regions, and keywords. However, our research has the following limitations: First, our data collection is limited to a single indexing database, namely the Web of Science. Second, we identify some irrelevant literature, and therefore, our data selection is guided by the authors' judgment. Therefore, the next researcher might supplement their review of mosque library materials with more specific references, such as Scopus-indexed publications.

Declarations

Author contribution statement

All authors listed have significantly contributed to the development and the writing of this article.

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Competing interest statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

References

- Antonio, M. S., Rusydiana, A. S., Purwoko, D., Khatimah, H., & Puspita, A. T. (2021). Islamic Library: History, Classification, and Waqf Role. *Library Philosophy and Practice*, 2021.
- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4). <https://doi.org/10.1016/j.joi.2017.08.007>
- Benaicha, H. (1986). Mosques as libraries in Islamic civilization; 700-1400 A.D. *The Journal of Library History (1974-1987)*, 21(2). <https://doi.org/10.2307/25541694>

- Elmer D. Johnson. (1982). *A History of Libraries in Westren World*. New York : Scarecrow.
- Harvey, J. F., & Musavi, S. A. (1981). Tehran mosque libraries and a comparison with American christian church libraries. *International Library Review*, 13(4). [https://doi.org/10.1016/0020-7837\(81\)90038-8](https://doi.org/10.1016/0020-7837(81)90038-8)
- Hill, D. R. (1993). *Islamic Science and Engineering*. Edinburgh : the University Press.
- Hitti, P. K. (1974). *History of the Arab From the Earliest times to the Present*. London : MacMillan.
- Kneller, G. F. (1978). *Science as Human A Human Endeavor*. New York : Columbia University Press.
- Laugu, N. (2005). Muslim Libraries in History. *Al-Jami'ah: Journal of Islamic Studies*, 43(1), 57. <https://doi.org/10.14421/ajis.2005.431.57-97>
- Laugu, N. (2007). The Roles of Mosque Libraries through History. *Al-Jami'ah: Journal of Islamic Studies*, 45(1). <https://doi.org/10.14421/ajis.2007.451.91-118>
- Mansour, E. A. H. (2015). The information-seeking behavior of mosque speechmakers (MSs) in the state of Kuwait. *Library Review*, 64(3). <https://doi.org/10.1108/LR-08-2014-0090>
- Micheau, F. (1996). The Scientific Institutions in the Medieval Near East. In *Encyclopedia of the History of Arabic Science, Vol. 3* (pp. 985–1007).
- Paltrinieri, A., Hassan, M. K., Bahoo, S., & Khan, A. (2020). A bibliometric review of sukuk literature. *International Review of Economics and Finance*. <https://doi.org/10.1016/j.iref.2019.04.004>
- Rahmawati, T. (2012). Mosque Library And Its Role In Intelectual Life Of The Nation. *International Conference on Libraries: "Transformation to Humanize Libraries" 2 - 4 July 2012*, 1–7.
- Rifai, A., & Subchi, I. (2020). *History of Sciences and Libraries in the Islamic World: A Mutual Relationship*. <https://doi.org/10.5220/0009926902520258>
- Sarton, G. (1927). *Introduction to the History of Science*. Balitmore : Wilkins and Wilkens.
- Surtikanti, R. (2018). Libraries of Islam: Religious Traditions of Spreading Science. *KnE Social Sciences*, 3(11), 221. <https://doi.org/10.18502/kss.v3i11.2761>
- Taher, M. (1992). Mosque Libraries : A Bibliographical Essay. *Libraries & Culture*, 27(1).
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>