

Digitalization of Zakat Collection System in Malaysia: A Bibliometric Analysis

NorashikinAhmad¹, Surita Hartini Mat Hassan^{2*}, Nurul Nadzirah Abdul Nasir³

^{1,2,3} Academy of Contemporary Islamic Studies, Universiti Teknologi MARA

*Corresponding Author

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ABSTRACT

To fully evaluate the academic subject of digitalization of zakat collection systems, this study will do a bibliometric analysis of 67 papers from the Scopus database from 2019 to 2025. Highlighting author, university, and country collaborations in the field, identifying the most influential authors, countries, and citations in the field, learning about the most recent research topics being worked on by researchers, and analyzing Malaysia's contribution to the field are the goals of the study. Based on the report, the top three countries that use digitization for their zakat collection systems are Bahrain, Malaysia, and Indonesia. At the University of New Orleans, the majority of researchers are focused on digitizing the zakat collection system. The most famous author on this topic is Hassan, M.K. Being an Islamic nation, Malaysia is significant to this study because of its involvement in zakat collection and distribution, which helps its citizens escape poverty, boost their purchasing power, and preserve their socioeconomic stability.

Keywords: digitalization, zakat, Malaysia, bibliometric, Scopus

INTRODUCTION

The globe today seems to be insulated by technical advancements, which are occurring more quickly in a variety of industries and necessitating modifications. With the comfort that internet technology offers, long distances seem to be disappearing. The 4.0 industrial revolution features rapid technological progress as its backdrop [19][22].

Zakat is a social and economic duty, and the greatest way to use technology to make it easier and more widespread is to use it for this purpose. For instance, because of the availability of online and mobile applications, people may locate zakat institutions to donate to and simply calculate their zakat depending on their assets. They can also conveniently handle their zakat payments electronically. Further openness in the zakat collection and distribution process is made possible by technology, which reduces the possibility of misuse and boosts public confidence in zakat organizations [10][20].

Zakat has developed into a cornerstone of Muslim development assistance during the past three decades, particularly in Malaysia. It brings money, expertise, and creativity to help address the most urgent issues facing the umma [17][16]. Additionally, it has come to play a pivotal role in assisting nations in realizing the 2030 Sustainable Development Goals (SDGs) [16][25], which are the social and economic objectives decided upon at the 2015 United Nations (UN) Summit. But zakat is only a part of a much larger giving sector that involves interactions between zakat donors, intermediaries (payment platforms), and the implementing organizations (mostly zakat institutions) that oversee project execution. Several linked phenomena have contributed to the growth of zakat, including the increasing wealth in emerging economies, the influence of new technology, and a new generation of donors with innovative ideas and viewpoints [16][24].

The State Islamic Religious Council is responsible for overseeing the zakat institution in Malaysia. Every state has laws governing how to appropriately administer zakat funds. The Malaysian zakat institutions are adopting

technology in tandem with the industrial technology movement. Records about zakat collection, distribution, and management were previously handled entirely by human resources, and everything was done by hand. As a result, there is insufficient efficiency to guarantee that all information and documents are accurately recorded without experiencing mistakes or data loss [21].

Traditional methods of collecting zakat by amil include visiting muzakki through a door-to-door system or having the muzakki visit the amil. Issues arise when the amil encounters difficulties collecting zakat due to technical issues, such as the long travel times to visit muzakki, the amil's lack of time, transportation challenges, costly and inefficient expenses, and so on [9]. Therefore, to improve the zakat collection's efficiency and transparency, it is essential to examine research trends on the digitalization of zakat collecting.

LITERATURE REVIEW

In general, studies related to zakat have been extensively researched by academics, waqf practitioners, and corporate members. The studies and works that have been conducted also cover various aspects related to zakat, starting from the history of waqf practices to its development in the present day, encompassing various aspects of discussion, questions, improvement suggestions, and so on. However, based on the research, there is still room for further studies related to zakat, especially concerning the digitization of the collection, payment, and distribution of zakat in line with the needs of the 4.0 Industrial Revolution era. (IR 4.0). Zakat is an important institution in Malaysia to ensure that the Islamic economy develops in line with the changing times and does not lag in supporting technological growth. The spread of Covid-19 is also one of the reasons for the increasing use of digital technology [23].

Based on [23], the public's acceptance of the implementation of digital zakat is at a high level. This is said because the acceptance percentage shows that many are comfortable paying zakat online. However, several elements need to be scrutinized to avoid undesirable occurrences such as data breaches and others. This is in line with [11] which shows an increase in the amount of zakat collection at PPZ-MAIWP. This proves that the level of confidence among digital zakat payers is very satisfactory. Both studies prove that digital platforms have gained a foothold in the community nowadays. Similarly, [15] found that rural mosques have the potential to obtain financial resources for mosque development by implementing e-payments such as e-zakat, e-sedekah, and so on. However, direct involvement from all parties is necessary, including the younger generation who are proficient and familiar with digital technology.

Digital technology not only facilitates zakat payments but also simplifies the process of data collection and the distribution of zakat funds to the zakat recipients. Rosele et al. [18] found that the shift to digital technology is essential for examining and auditing zakat collection and distribution funds. They also suggested that all zakat institutions explore more deeply the technological facilities in managing zakat-related matters. Nawi et al. [14] presented their research findings on the need for digital data on zakat recipients. This is said because digital data has the potential to be utilized and facilitates the management and administration of data.

Based on the research of past studies, most of the studies were conducted qualitatively and quantitatively involving data collection through surveys. Studies using bibliometric methods on digital technology in the implementation of zakat have not been found. Therefore, a bibliometric study should be conducted to identify the developments in the implementation of zakat involving the use of digital technology at present.

RESEARCH QUESTION

- What is the trend/ what are the research trends in the digitalization of zakat collection in Malaysia according to the year of publication?
- Who has been published in the area concerning the affiliated organizations and countries?
- Who are the most influential authors?
- Which are the most influential countries?
- What are keywords' distribution and trend?

METHODOLOGY

This paper focuses on current trends and collaborative research on digital zakat using bibliometric methods. This paper uses data collected from the Scopus database. According to Zhang, Chen, Wang, and Ordonez [26], the bibliometric method is a method that specifically uses statistical techniques to analyze documents that have been published in a database. Recently, studies using bibliometric methods have become increasingly popular among researchers [1]. This method is popular because bibliometric methods are a study that showcases research trends in various fields. Therefore, researchers can easily examine trends and developments in publications within specific fields before starting a new study.

Meanwhile, there are several indicators used in bibliometric methods based on specific categories to analyze the collected documents. For example, the categories of publication, citation, authors, publishers, and countries. According to Durieux and Gevenois [7], there are also other indicators in bibliometric methods, namely quantity, quality, and structure. The quantity indicator refers to the productivity of the researcher. Quality indicators refer to the measurement of a researcher's performance as seen from the number of citations, the H-index or G-index, while structural indicators refer to the measurement of relationships with research output. Therefore, all the indicators presented can help researchers analyze the data obtained from artificial intelligence (AI) software so that researchers can analyze it accurately [2].

Data Search Strategy

In addition to using indicators, the correct and precise keywords for searching articles are also important in the bibliometric method. Keywords are used to ensure that all research-related data collected can be found. Therefore, this paper will include all keywords related to zakat for document searches in the Scopus database. In this paper, three keywords are used specifically. First, is digitalization. Second, the zakat collection. Third, Malaysia. Based on those keywords, it was found that there are 30 documents identified as related to zakat from the year 2019 to 2023.

Therefore, all 30 documents obtained from the Scopus database were analyzed using various indicators. This aims to obtain input related to the research objectives in producing this paper. In this paper, the AI analysis applications used are the Scopus database, Microsoft Excel, and VOSViewer. The use of AI applications aims to develop relevant images and assist in interpreting data in this paper.

Data Analysis

VOSviewer software was used to analyze the bibliometric meta-data for co-authorship, bibliographic coupling, keyword co-occurrence, and citation. Bibliographic coupling occurs when the same publication is cited in two different sources. Put another way, the number of shared resources is used to create the connections between components, including publications, journals, and authors. The co-occurrence of keyword analysis demonstrates the domain's evolution over time [6]. According to Appio et al. [4], VOSviewer concentrates on positioning things in low-dimensional environments so that the distance between any two objects appropriately represents how similar and connected they are.

A map is created by VOSviewer after the weighted total of the squared distances between each pair of elements has been lowered. Using LinLog/modularity, normalization was developed [5]. To find patterns based on mathematical correlations, analyses such as co-citation, co-occurrence analysis, and keyword co-occurrence analysis were also performed on the data set using VOSviewer's visualization tools. It is possible to evaluate the evolution of a research field over time [12] and successfully identify popular themes across multiple domains with keyword co-occurrence analysis [27]. Citation analysis, on the other hand, works to investigate the historical relevance of a discipline's main focus and to identify significant research issues, trends, and approaches [3]. Document co-citation analysis is one of the often-employed bibliometric methods [5][8][13] the relevant data structure is determined by the results of this method [13].

RESEARCH FINDINGS

What is the trend/what are the research trends in the digitalization of zakat collection in Malaysia according to the year of publication?

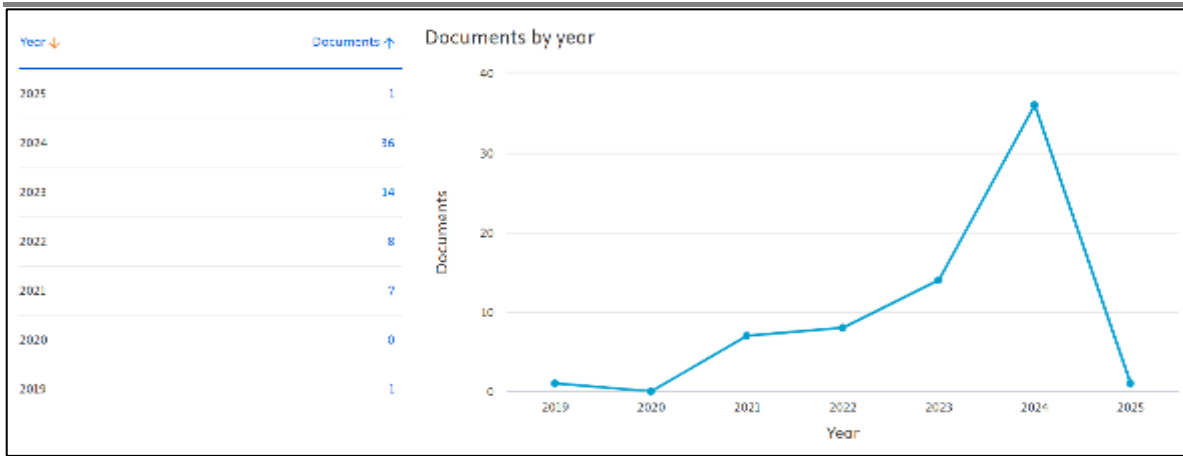


Figure 1: Research trends in the digitalization of zakat collection studies

The number of publications on the zakat collection that were digitalized and released annually between 2019 and 2025 is displayed in Figure 1. Research on digitizing the zakat collection is becoming more and more promising, as the picture illustrates. One article, or 1.49% of all publications, was published in 2019; there were no publications in 2020, or 0% of all publications; seven publications, or 10.44% of all publications, were published in 2021; eight publications, or 11.94% of all publications, were published in 2022; fourteen publications, or 5.97% of all publications, were published in 2023; thirty-six publications, or 57.73% of all publications, were published in 2024 and one article, or 1.49% of all publication, were published in 2025. More articles were written in 2023, as we can see, as Malaysia started to take the digitization of the zakat collection seriously.

Who has been published in the area concerning the affiliated organizations and countries?

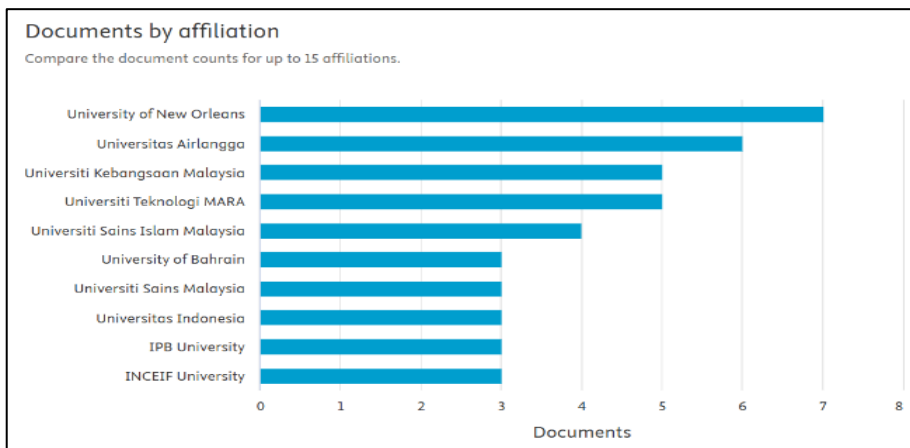


Figure 2: The affiliated organizations that published most articles

Table 1: List of affiliated organizations that published most articles

Affiliated organizations	Number of articles
University of New Orleans	7
University Airlangga	6
Universiti Kebangsaan Malaysia	5
Universitas Teknologi MARA	5
Universiti Sains Islam Malaysia	4
Universitas of Bahrain	3
Universiti Sains Malaysia	3
Universitas Indonesia	3
IPB University	3
INCEIF University	3

The University of New Orleans has seven publications (10.44%), followed by the University Airlangga with six

publications (1.49%); Universiti Kebangsaan Malaysia and Universiti Teknologi MARA with five publications (7.46%); Universiti Sains Islam Malaysia with four publications (5.97%); University of Bahrain, Universiti Sains Malaysia, Universitas Indonesia, IPB University and INCEIF University with three publications (4.47%) (see Figure 2 and Table 1). The limited quantity of published studies suggests that zakat collection digitization is a relatively new global practice.

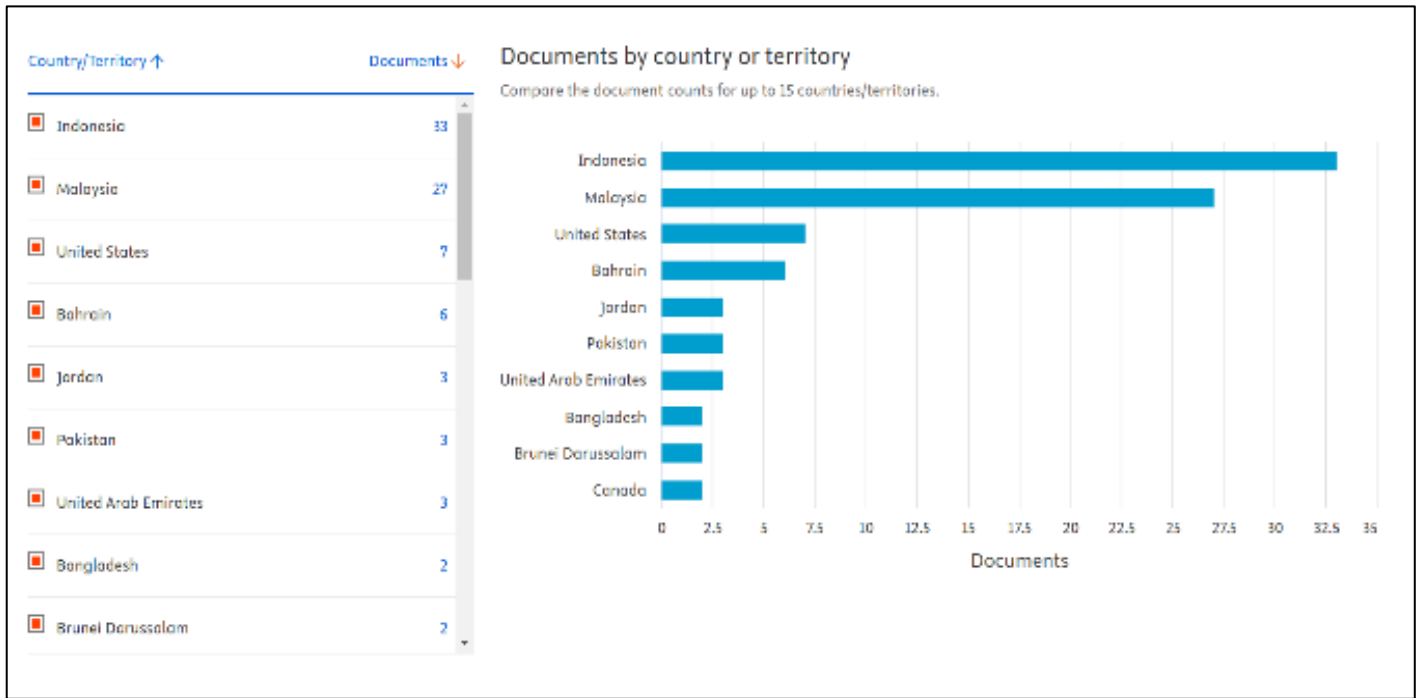


Figure 3: The countries that published most articles

According to the data set analysis, publications about the digitization of zakat collection are associated with 10 countries, with Indonesia producing the most of them with thirty-three publications, or thirty-one percent. Following that, Malaysia came in first place with twenty-seven publications (40.29%), followed by the United States with seven (10.44%), Bahrain with six (8.95%), Jordan, Pakistan, and the United Arab Emirates with three (4.47%), Bangladesh and Brunei Darussalam with two (4.8%). The most influential country is Indonesia, which has produced more publications than any other country (see Figure 3).

Who are the most influential authors?

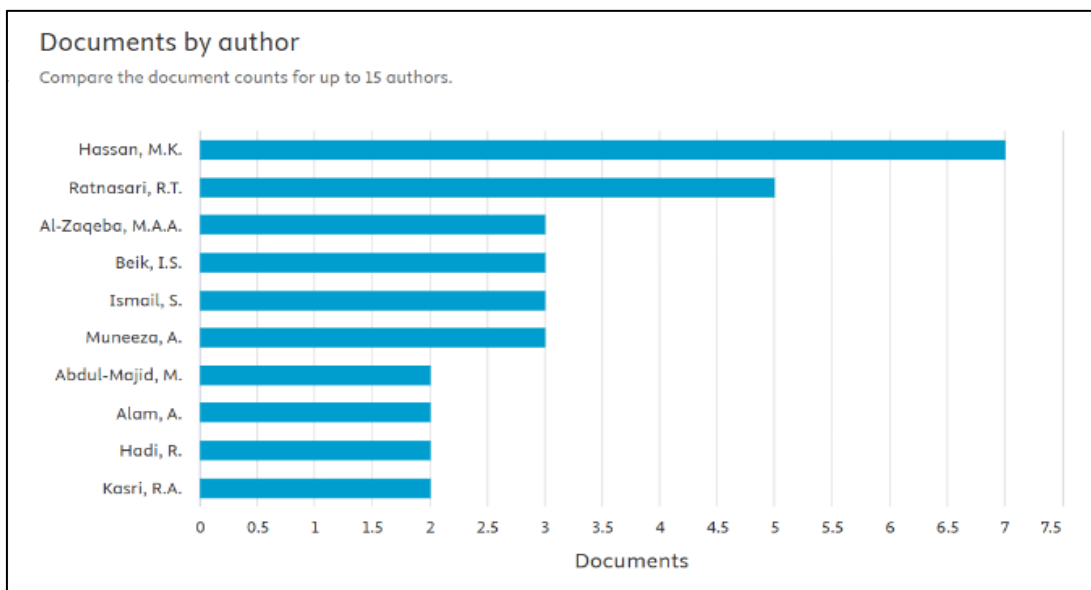


Figure 4: Most influential authors

Table 2: List of authors that published most articles

Author's name	Number of articles
Hassan, M.K.	7
Ratnasari, R. T	5
Al-Zaqeba, M.A. A	3
Beik, I. S	3
Ismail, S.	3
Muneeza, A.	3
Abdul-Majid, M.	2
Alam, A.	2
Hadi, R.	2
Kasri, R. A	2

Table 2 and Figure 4 show that Hassan, M.K. published seven articles (10.44%), Ratnasari, R.T. published five articles (7.46%), Al-Zaqeba, M.A.A, Beik, I.S, Ismail, S., and Muneeza, A. published three articles (4.47%), and Abdul-Maajid, M., Alam, A., Hadi, R. Kasri, R. A published two article each (2.98%). With more papers published than any other author, Hassan, M.K. is the most influential author.

Which are the most influential countries?

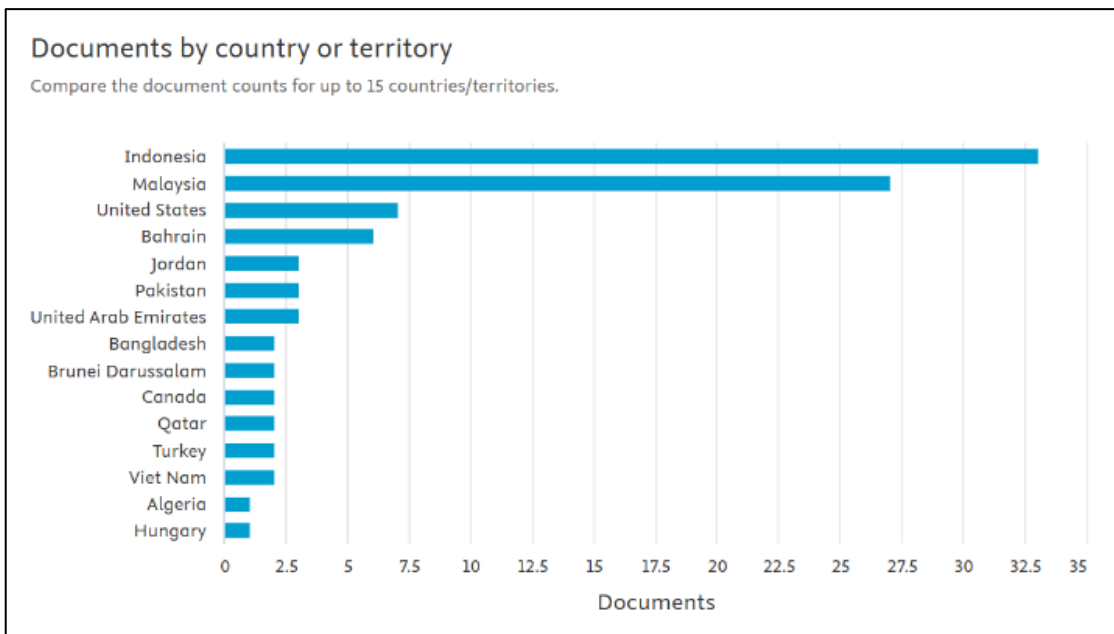


Figure 4: Most influential countries

Figure 4 displays the collaboration between researchers by country based on the Scopus database. The country with the highest researcher collaboration is Indonesia, which produced 33 documents, while the countries with the lowest researcher collaboration are Algeria and Hungary each with 1 document. Based on the visualization map of researcher collaboration generated through VOSviewer, it can be seen that studies related to the digitalization of zakat collection are dominated by Asian countries.

What are keyword distribution and trends?

Based on the research conducted on the keywords for each publication, the researchers used VOSviewer to analyze the keywords used by the authors. There are three terms that are most frequently used by the authors in the 30 identified documents, namely shariah, FinTech, and Islamic bank. Additionally, the use of VOSviewer software also serves to identify collaborations between keywords in publications. This is as shown in Figure 4 regarding the collaboration network between keywords.

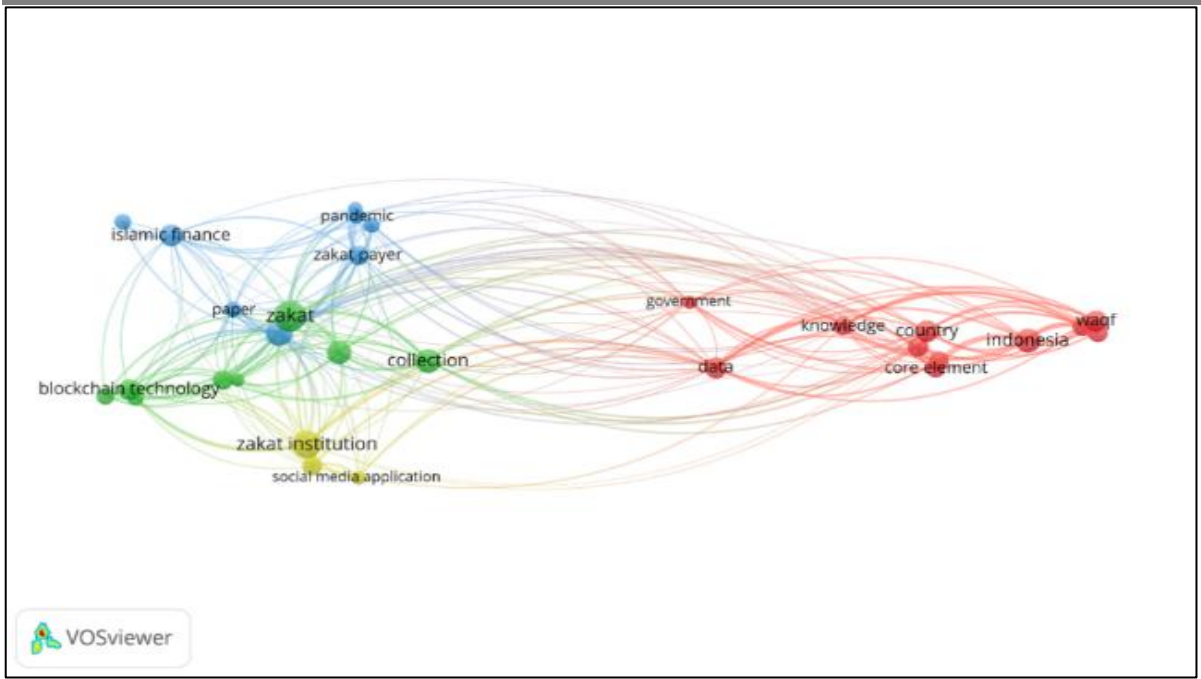


Figure 4: Author keyword Network Visualization Map

Figure 4 shows a visualization map of the author keyword network analyzed using VOSviewer software. In this visualization map, there are four clusters of author keywords that exist within the 30 analyzed documents. All of these clusters are stated in Table 2.

Table 2: Author’s Keyword Cluster in Related Studies Digitalization of Zakat Collection System in Malaysia

Cluster	Colour	Main Topics of The Study	Keyword
Cluster 1	Red	Government’s Role in Developing Islamic Fintech for SMEs	Core element, country, data, development, government, Indonesia, intention, Islamic fintech ecosystem, knowledge, smes, waqf
Cluster 2	Green	Blockchain in Modernizing Zakat Fund Management	Blockchain, blockchain technology, collection, distribution, zakat, zakat fund, zakat management, zakat management system
Cluster 3	Blue	Islamic Finance Solutions in a Pandemic Era	Covid, financial technology, Islamic finance, pandemic, paper, research, zakat distribution, zakat payer
Cluster 4	Yellow	Social media’s Role in Modernizing Zakat Institutions	Adoption, social media application, zakat institution

Table 2 shows the author keywords for all four clusters in this study related to the digitalization of the zakat system, which were analyzed using VOSviewer. Therefore, the main topics of the study discussing the digitalization of the zakat collection were identified based on the keywords obtained from the previous VOSviewer analysis. The analysis results found four main topics in the study of the digitalization of zakat collection. First, Government’s Role in Developing Islamic Fintech for SMEs; second, Blockchain in Modernizing Zakat Fund Management; third, Islamic Finance Solutions in a Pandemic Era; and fourth, Social Media’s Role in Modernizing Zakat Institutions. All four main topics of discussion in the digitalization of the zakat collection are represented by the colors red, green, blue, and yellow. Therefore, the findings of all four clusters demonstrate that the digitalization of the zakat collection is also discussed in various fields beyond

Islamic finance.

DISCUSSION AND CONCLUSION

This paper aims to examine a bibliometric study on the digitalization of zakat collection in Malaysia. This study focuses on data regarding the digitalization of zakat collection in Malaysia in the Scopus database from 2019 to 2025. After searching for the keywords digitalization, zakat collection, and Malaysia, 67 documents were identified based on the Scopus database. In this paper, bibliometric analysis is conducted covering authors, publications, keywords, citations, and collaboration between researchers and countries. Based on the research conducted, the trend of publication development over the years has been observed to be increasing. Additionally, the VOSviewer software was used to identify keywords through visualization maps. From the visualization map, four clusters exist based on the author's keywords related to digitalization, zakat collection, and Malaysia. Meanwhile, the trend of the most active researchers in producing publications related to digitalization, zakat collection, and Malaysia is led by Hasan. M.K. who produced 7 documents. The trend of collaboration between countries is also led by Indonesia, which has published 33 documents.

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