Waqf and Technology on Academic Publication

Ririn Riani[1]
[1]*Tazkia University, Indonesia*

This study aims to see the development of research on the topic of "Waqf and Technology" and research plans that can be carried out based on journals published on the theme. This research uses a qualitative method with a bibliometric analysis approach. The data used is secondary data with the theme "Waqf and Technology" which comes from the Dimension database with a total of 291 journal articles. Then, the data is processed and analyzed using the VosViewer application with the aim of knowing the bibliometric map of "Waqf and Technology" research development in the world. The results of the study found that there were 4 clusters with the most used words being waqf, development, institution, zakat, country, challenge, intention, and blockchain. Then, the research path topics related to Waqf and Technology are Crowdfunding Waqf, Digital Technology for Distribution of Waqf, Fintech Applications for Waqf Endowment, and Technology Adoption in Waqf Management.

Keywords: Waqf; Technology; Research Map; Bibliometric; Publication

OPEN ACCESS
ISSN 2985-3257 (Online)

*Correspondence:
Ririn Riani
ririnr@gmail.com

Received: 17 August 2024
Accepted: 30 November 2024
Published: 31 December 2024

Citation:
(2024) Waqf and Technology on Academic Publication. Islamic Social Finance. 4. 2.

INTRODUCTION

Waqf is an important concept in Islamic finance and philanthropy, encompassing the act of dedicating property or assets for charitable purposes. The term "waqf" (awqaf) comes from an Arabic root meaning "to hold" or "to control." Waqf refers to the act of holding back certain assets and preventing their use to generate benefits for specific charitable purposes (Budiman, 2014). According to Law No. 41 of 2004 in Indonesia, waqf is defined as the act of a waqif (the person who endows the waqf) who separates part of his/her property to be used forever or for a certain period of time for religious purposes or public welfare in accordance with Sharia.

Waqf plays an important role in economic development by transforming charitable donations into sustainable assets. Waqf acts as a capital accumulation mechanism, where resources are diverted from consumption and invested in productive assets that can generate sustainable benefits for society. This dual function of waqf highlights its importance in improving social welfare. Moreover, waqf has been characterized as a credible commitment tool, which not only facilitates charitable giving but also ensures that the benefits derived from such assets are directed towards meeting the needs of society over time (Nurdany, 2019). The perpetual nature of waqf ensures that it contributes to long-term social infrastructure, such as educational institutions, healthcare facilities, and community services.

Recent developments have introduced innovative waqf models that go beyond traditional charitable purposes. Modern waqf is increasingly viewed as a financial product and investment tool. For example, innovative mechanisms such as parallel waqf, waqf-based sukuk (Islamic bonds), and micro-takāful (Islamic insurance) have emerged. These innovations not only increase the financial viability of waqf but also integrate it into the broader Islamic finance industry (Abdullah, 2018). On the other hand, the integration of technology into waqf operations has been a transformative process, improving management, transparency, and accessibility. This evolution is particularly evident through the adoption of financial technology (fintech), blockchain, and digital platforms, which collectively aim to modernize waqf practices.

The utilization of fintech in waqf has emerged as an important area for development. Fintech facilitates easier collection and management of waqf funds, particularly cash waqf. Napitupulu & Sukmana (2023) emphasize that fintech can simplify the fundraising process for waqf institutions by integrating it with e-commerce platforms to improve the efficiency of fund collection. Blockchain technology also presents significant opportunities to optimize waqf management. Its implementation can increase transparency and trust in waqf-related financial transactions.

In addition, the integration of crowdfunding platforms enables wider participation in waqf contributions, mobilizing resources more effectively than traditional methods. Research by Nurachmadi et al (2024) and Kasmon et al (2024) shows that digital platforms not only facilitate cash waqf donations but also improve overall management practices by providing real-time reporting and data transparency. The use of artificial intelligence in these platforms can further optimize the decision-making process related to fund allocation and project management (Kasmon et al., 2024).

However, several challenges hinder the effective implementation of technological solutions in waqf operations. One of the main barriers to integrating technology in waqf management is the inconsistency in the legal framework across different jurisdictions. Many countries have outdated waqf laws that do not accommodate modern technological advancements, leading to confusion and mismanagement of waqf properties. The lack of clear regulations regarding the use of technologies such as blockchain further complicates the situation. Without standardized legal guidelines, waqf institutions face difficulties in effectively implementing this technology (Napitupulu & Sukmana, 2023). Furthermore, while technologies such as blockchain promise better accountability and transparency, their implementation is not without its challenges. For example, errors in recording transactions and difficulties in controlling waqf activities may undermine trust in these systems (Mohaiyadin et al., 2022). In addition, stakeholders may lack awareness or understanding of how these technologies work, which may lead to resistance to the adoption of new methods for managing waqf funds (Kasmon et al., 2024).

Based on this background, it is important to see the extent of the current development of Waqf and Technology through research, and one method that can be used to see the development of research is bibliometrics using VosViewer. The method is able to create and display author journal maps and research paths based on co-citation data or keyword maps based on co-incidence data. Some research that examines related to Waqf and Technology, namely Uluyol et al (2021) conducted a detailed analysis of the development

of waqf research with a careful evaluation of various aspects of the scientific panorama inherent in Islamic business and social finance. The results concluded that waqf research can be categorized into three sub-areas, such as research on waqf fundamentals, analysis on cash waqf, and research on various waqf applications in Islamic social finance. Although there is some important or fundamental research on waqf, it is not good enough for such a powerful instrument of Islamic social finance. This study finds research gaps in the existing waqf literature and presents nine future research directions.

Anam et al (2022) mapped the literature on environmental waqf to explore future research directions. The analysis found four research clusters: waqf in sustainable development, regional planning, waqf governance in the agricultural sector, and cash waqf for welfare improvement. This study proposes future directions for environmental waqf research, focusing on the role of waqf in achieving sustainable development objectives for environmental stability

Zain et al (2019) describe the potential of reviving waqf through crowdfunding technology. This research explains that technological disruption continues to change today's global markets and economies. At the same time, Islamic social finance and its mechanisms continue to be in the spotlight due to its sustainable and long-lasting nature. Looking at the application of waqf as one of the Islamic social finance instruments, this sustainable charitable giving is preferred due to its perpetual, irrevocable and non-transferable features. With the advent of new technologies called crowdfunding platforms, the revival of waqf can happen. Such a waqf revival is important for society at large, especially for the Muslim community. A waqf revival can provide important assistance in reducing poverty and providing equal opportunities for economic participation.

Ibrahim et al (2021) examine the efficiency of waqf and its transformative technology in improving the waqf system in Malaysia. Hasbulah et al (2024) highlight the dynamic development of cash waqf by examining its relationship with technology. Aldeen et al (2020) discussed contemporary issues related to cash waqf. This study emphasizes that Malaysia and Indonesia demonstrated a strong research commitment to cash waqf during the period 2002-2019. Furthermore, this study also highlights the existing gaps that need to be researched to enrich the potential of cash waqf. Almomani et al (2024) explored the impact of digital transformation on Waqf management and charitable financing methods in Islamic institutions. The study found a growing shift towards the use of digital technologies in Waqf management. However, many institutions face challenges such as digital security and lack of technical capabilities. Mohaiyadin et al (2022) identified how blockchain technology can address the challenges of accountability and transparency in the waqf management system.

This research was conducted to complement existing research and fill the gaps of previous research and to expand the literature related to Waqf and Technology through the research path. Specifically, the purpose of this research is to see the development of "Waqf and Technology" research published by journals with the theme and see future research opportunities by formulating a research agenda.

METHOD

In this study, various scientific journal publications related to the theme of "Waqf and Technology" around the world were used as data sources. The data is collected by searching for journal publications indexed in the Dimension database using the keywords "Waqf and Technology". After that, scientific articles or journals that are relevant to the research theme will be selected based on the publication data that has been collected. Journals equipped with DOI are the criteria in the screening process and data processing using software. There were 291 journal articles published from within the research theme "Waqf and Technology". The development of publication trends related to the research topic was analyzed using VOSviewer software, which can generate bibliometric maps and allow for more detailed analysis.

In order to build the map, VOSviewer uses the abbreviation VOS which refers to Visualizing Similarity. In previous studies, the VOS mapping technique has been used to obtain bibliometric visualizations which are then analyzed. Furthermore, VOSviewer is able to create and display author journal maps based on co-citation data or keyword maps based on co-incidence data. Therefore, this study will analyze journal maps related to "Waqf and Technology", including author maps, and keywords which are then analyzed for research paths that can be carried out in the future through clusters on keyword mapping.

This research uses a descriptive qualitative approach with meta-analysis and descriptive statistical literature study based on 291 journal publications that discuss the theme of "Waqf and Technology". Meta-analysis is a method that integrates previous research related to a particular topic to evaluate the results of

existing studies. Furthermore, the qualitative method used in this research is also referred to as a constructive method, where the data collected in the research process will be constructed into themes that are easier to understand and meaningful. The sampling technique used in this research is purposive non-probability sampling method, which aims to fulfill certain information in accordance with the desired research objectives. Studies using bibliometric analysis in research on other Islamic economic and finance topic, for example, can be seen in Napitupulu, et al., (2024); Yenice et al., (2022), Rusydiana (2021), Khalifah et al., (2024), Mi'raj & Ulev (2024), Rusydiana et al., (2023), and also Ozdemir & Selçuk (2021).

RESULT AND DISCUSSION

Research Map

The figure below describes the trend of keywords appearing in research on the theme "Waqf and Technology" and the larger shapes are the most used words in journal publications on the theme "Waqf and Technology".

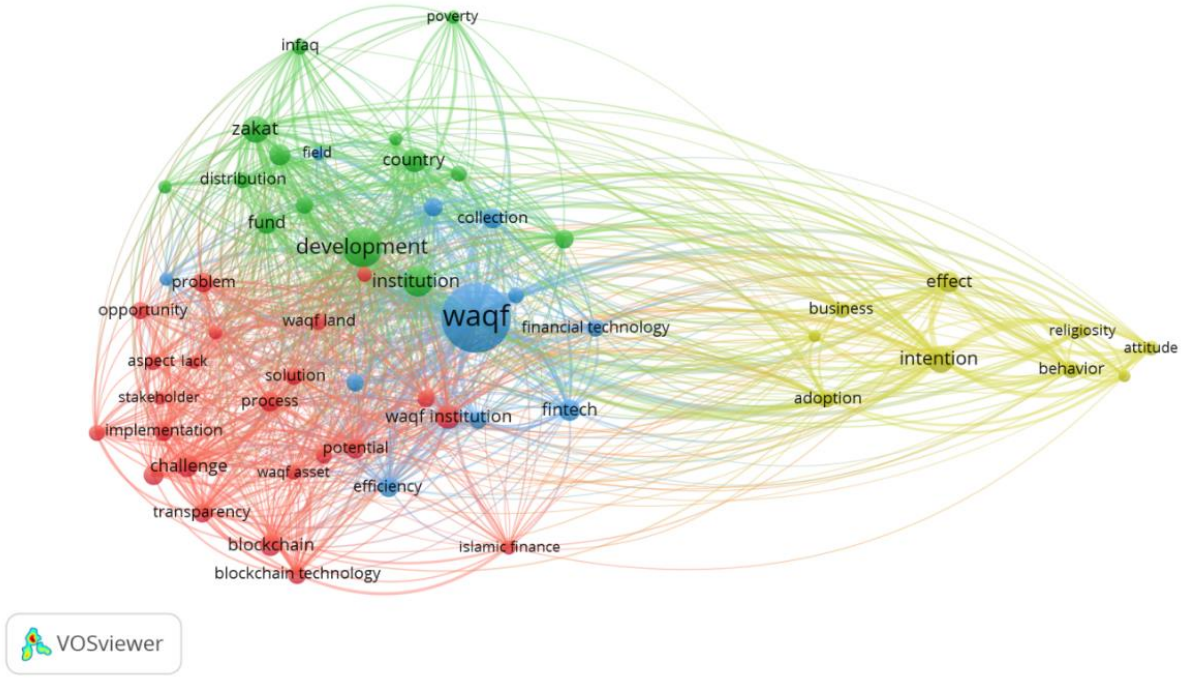

Figure 1. Research map

As for the mapping, the keywords that appear most in the publication "Waqf and Technology" include waqf, development, institution, zakat, country, challenge, intention, and blockchain which are then divided into 4 clusters, as follows:

Cluster 1: Crowdfunding Waqf

This cluster has 23 keyword items, namely accountability, aspect, blockchain, blockchain technology, challenge, collaboration, crowdfunding, government, implementation, Islamic finance, lack, opportunity, potential, problem, process, regulation, solution, stakeholder, transparency, waqf asset, waqf institution, waqf land, waqf management. The topic "Crowdfunding Waqf" discusses the concept of utilizing crowdfunding platforms to raise funds for waqf management and development. Research on the topic has been done quite a lot. A number of relevant studies include Thaker et al (2018) proposing a waqf-crowdfunding model (CWM) as a sustainable financing solution for waqf institutions in Malaysia that face liquidity constraints in developing waqf land. This study found that the perceived benefits and ease of use of CWM positively influence the behavioral intention of waqf to support waqf development. It can be concluded that CWM can also be applied in other Muslim countries with similar challenges.

Mohd Thas Thaker (2018) examined the behavioral intention of donors to adopt the waqf-crowdfunding model (CWM) for waqf land

development in Malaysia, by addressing the liquidity issues faced by waqf institutions. The study found that perceived benefits and ease of use positively influence donors' intention to support waqf land development, highlighting the potential of waqf as a source of financing for waqf institutions. Mohd Thas Thaker & Allah Pitchay (2018) proposed the waqf-crowdfunding model (CWM) as an alternative source of financing to develop waqf land in Malaysia, by addressing the liquidity constraints faced by waqf institutions. The model combines donation-based and reward-based waqf, which differentiates it from traditional cash waqf methods, and aims to provide practical implications for waqf institutions and policymakers.

Masrizal et al (2023) explored fundraiser behavior in Indonesia using two technology acceptance models to improve the effectiveness of waqf fundraising. The findings of this study show that the Technology Acceptance Model positively influences fundraisers' intentions, while the Integrated Technology Acceptance and Use Theory has no significant effect. Azganin et al (2021) proposed a waqf crowdfunding model that aims to provide an alternative source of funding for smallholder farmers, who are severely affected by poverty. This research presents a conceptual framework for the two models and outlines the parameters required for their implementation, highlighting the potential benefits of integrating crowdfunding with waqf to support underprivileged farmers and increase their economic participation.

Hapsari et al (2022) investigated experts' opinions on the crowdfunding waqf model (CWM) as a source of financing for waqf land development, and found strong support for its suitability and applicability. Key factors influencing the sustainability of CWM include donor engagement, project attractiveness, promotion, and regulatory oversight, particularly by the State Islamic Religious Council in Malaysia. Mohsin & Muneeza (2019) discuss the integration of waqf with modern financial technology innovations such as crowdfunding and blockchain, highlighting the potential of WaqfCoin to increase endowment funds. The research discusses successful cases of online waqf donations and the transformation of old waqf schools into universities in Malaysia, demonstrating the effectiveness of waqf stocks in raising funds for community needs.

Hapsari et al (2022b) investigated the likelihood of potential donors in Malaysia using the crowdfunding-Waqf model (CWM) to address Waqf land financing issues, by identifying key factors such as perceived benefits, ease of use, gender and Waqf knowledge that positively influence this desire. This study revealed that middle-income males with knowledge of Waqf are most likely to adopt CWM. Nasution & Medias (2020) describe the waqf financing model through the crowdfunding platform wakafhasanah.bnisyariah.co.id and its role for waqf development in Indonesia. The study found that by the end of 2019, there had been 24 waqf projects and 53 waqf projects (education, development, human resources, cash waqf, environment or fort hasanah) that had been funded by the wakafhasanah crowdfunding platform with a total funding of IDR 3,627,088,985. Fikri & Andrean (2023) present a green waqf-based model that utilizes Islamic mass funding to develop sustainable Tamanu industries in Indonesia, which include the agriculture, biofuel, and pharmaceutical sectors. The research highlights how this financing model can enhance community economic progress and environmental sustainability while addressing funding challenges in the Tamanu industry.

Cluster 2: Digital Technology for Distribution of Waqf

This cluster has 14 keyword items, namely concept, contribution, country, development, digital technology, distribution, fund, infaq, institution, islamic social finance, poverty, waqf fund, world, zakat. The topic "Digital Technology for Distribution of Waqf" discusses the utilization of digital technology in distributing waqf benefits in a more efficient, transparent and inclusive manner. This topic covers how digital platforms, such as mobile applications, blockchain, and online management systems, can be used to ensure that waqf assets or funds are managed and distributed in accordance with sharia objectives. There are still quite a few studies that discuss these research topics.

Among the relevant studies, Fanani et al (2021) examined the poverty situation and described the grand design of the digital Waqf system in reducing poverty in Indonesia. Poverty is a crucial issue and has a major impact on social and economic development. Waqf (endowment funds) is one of the sources of the Islamic economic system, which refers to voluntary charity. Waqf has a unique presence in Islam and has the potential to reduce poverty. The concept is currently being adopted by developing a Waqf system that integrates digital technology. The results show that Waqf plays an important role in reducing poverty in Indonesia. By utilizing digital platforms, the collection of Waqf funds is effective and widespread to the Muslim community in the country. The results also show that

the digital Waqf system has an important role and has the potential to contribute to sustainable economic development in developing countries, especially Indonesia.

Berakon et al (2022) investigated the role of digital sharia banking systems (DSBS) in stimulating the decision of Muslim youth to endow cash waqf in Indonesia. The results showed perceived ease of use (PEU) was found to be the most significant predictor of perceived usefulness (PU). Both produced significant effects on Muslim youth attitudes towards DSBS. Overall, subjective norm (SN), perceived behavioral control (PBC), PU, and attitude are important determinants that direct individuals' decisions to use online cash waqf payments through DSBS. This study concludes that DSBS plays an important role in driving the interest of Muslim youth to participate in cash waqf transactions.

Kartini & Muarrifah (2023) examined the transformation of the role of technology in the collection and distribution of social funds, especially related to the digitalization of zakat and waqf in Indonesia. Digitalization of zakat and waqf is an innovation that has great potential to encourage people's empowerment. This research explains a number of challenges of digitizing zakat and waqf such as the need to increase digital literacy and transparency, digitization can be an important force in maximizing the distribution and effectiveness of zakat and waqf. The research concludes that collaboration between the government, financial institutions, and zakat and waqf management organizations is essential in realizing the full potential of digitalization. Sulistyowati (2023) explored the digitization of Islamic waqf as a means to enhance its development, highlighting the gaps in implementation among member countries of the Organization of Islamic Cooperation (OIC). The research identifies key issues affecting waqf progress, such as regulatory challenges and the need for skilled human resources, and recommends integrating government budgets with waqf funds to improve operationalization and collaboration.

Cluster 3: Fintech Applications for Waqf Endowment

This cluster has 11 keyword items, namely addition, benefit, collection, effectiveness, efficiency, endowment, field, financial technology, fintech, person, waqf. The topic "Fintech Applications for Waqf Endowment" discusses how financial technology (fintech) can be used to improve the management, collection and distribution of waqf endowments in a more efficient, transparent and inclusive manner. This topic includes the exploration of digital platforms that enable technology-based waqf management such as payment applications, blockchain and crowdfunding. A number of relevant studies namely Ahmad et al (2023) provide a technology-based model (FinTech) to modernize the administration and investment of Islamic charitable waqf, known as Waqf as a solution for underdeveloped areas that are suffocated by the lack of financial goods and services. The study concludes that FinTech businesses are alternative platforms that can be accessed at any time by beneficiaries.

Zakariyah et al (2023) examined the impact of "Industry 4.0" on the expansion of fintech into cash waqf in Malaysia. The popularity of financial technology (fintech) is on the rise in society due to its direct benefits to its users. This digital-based approach is one of the outcomes of the Industrial Revolution 4.0 that changed the course of human history and resulted in the development of innovative digital transformation strategies, more commonly referred to as digitalization. Overall, this study shows that perceived trust and social norms significantly influence the adoption of fintech by Malaysian waqf institutions. At the same time, other factors such as awareness, relative advantage, and knowledge do not seem to significantly influence fintech adoption among Malaysian waqf institutions.

Yoshida (2019) discussed how FinTech, financial services enhanced by the high utilization of information and communication technology (ICT), can enable the potential capabilities of cash waqf, particularly in the context of social finance. Waqf has played a social finance role including in earlier eras of Islamic history. With the rapid advancement of ICT and the growing population of personal communication devices such as mobile phones, smartphones, and computers, cash waqf will create great social value when enhanced with ICT. This research also proposes the possibility of an expanded form of FinTech-enabled cash waqf, including microfinance, as a socially valuable financial system.

Ghaouri et al (2023) modeled fintech-based Islamic microfinance as a potential source of funding for small and micro enterprises by taking the case of Hal Microfinance in Kenya. The COVID-19 pandemic has resulted in economic suffering for communities and small businesses around the world. Innovative Islamic finance solutions in the form of waqf-linked Islamic fintech microfinance have proven to provide effective funding solutions for micro and small businesses affected by the pandemic. This study concludes that the Shariah-compliant hybrid microfinance model under

study has high potential to fund local small and micro enterprises in Kenya and help them during the economic hardship caused by the pandemic.

Yelkenci & Bulut (2024) elaborate on the Ottoman perspective, particularly contracts that have a considerable practical impact on accountability and awareness of humanity and the environment. This research also discusses the application of Fintech applications, using blockchain and artificial intelligence in Cash Waqf management systems. The proposed Fintech application increases user confidence to use Cash Waqf with the new contract model. It can also reduce transaction costs, fraud, and systemic risks, as well as provide traceable accountability and a high level of data protection.

Nurjanah & Hasanah (2021) explained cash waqf as a source of funding for fintech startups. This research explains that there is still a lack of understanding about the importance of cash waqf for development, so a stimulus is needed so that cash waqf management can be developed productively. With the support of financial technology in the 4.0 economic era, where economic digitalization is dominant, cash waqf funds can be used as business capital, especially for companies with the ultimate goal of empowering community businesses, especially MSMEs and startup companies through crowdfunding platforms. Zakariyah et al (2021) proposed a conceptual framework for cash Waqf institutions in Malaysia to improve cash Waqf collection through the adoption of financial technology (FinTech). This research investigates factors such as awareness, knowledge, and perceived trust, while addressing the risks associated with using technology in this context.

Cluster 4: Technology Adoption in Waqf Management

This cluster has 9 keyword items, namely adoption, attitude, behavior, business, effect, intention, religiosity, social influence, technology acceptance model. The topic "Technology Adoption in Waqf Management" discusses how technology is adopted to improve efficiency, transparency and productivity in waqf management. This topic includes the exploration of various technologies such as blockchain, artificial intelligence (AI), big data, and digital platforms to facilitate waqf asset management, record keeping, benefit distribution, and more accurate reporting. A number of relevant studies include Mohaiyadin et al (2022) identifying how blockchain technology can address the challenges of accountability and transparency in waqf management systems using institutional theory and Islamic institutional logic. The results showed that in terms of coercive isomorphism there are two transparency challenges associated with blockchain solutions in the waqf management system: errors in receipt issuance (process), which blockchain solutions are expected to address in the form of individual network technology and ID identifiers; and difficulties in waqf distribution (process), which blockchain solutions are predicted to solve in the form of controlling tools, public ledgers, and obtaining waqf distribution data. In normative isomorphism, there are two accountability challenges with blockchain solutions in waqf management systems: difficulties in controlling waqf activities (process), which are expected to be resolved by blockchain solutions that enable internal control; and decisions about waqf distribution (output), which should be resolved by blockchain solutions that enable awareness among stakeholders about waqf distribution. In mimetic isomorphism, there is one accountability and transparency challenge in the process that has a blockchain solution in the waqf management system, namely system integration, which is predicted to be addressed by a blockchain solution related to traceability.

Abd Mutalib & Md Sabri (2021) examined the readiness of waqf institutions towards e-Wakaf property management initiatives. This research emphasizes the application of Information Technology (IT) in daily management and administration is a very important and fundamental step for any organization today. The application of IT in waqf institutions can help facilitate and increase the level of efficiency and effectiveness of the management team, especially when dealing with waqf property management. However, problems that often arise in waqf property management such as uncentralized waqf property information, unstructured data and difficulties in data retrieval cause it to be time-consuming and inefficient in overall waqf property management. Thus, the implementation of information systems to manage waqf properties by waqf institutions is crucial in ensuring the competitiveness of the organization.

Hassan et al (2018) explored waqf management practices in Malaysia and proposed a framework for Waqf Management. The results identified three important components that are crucial for efficient waqf management, namely research management, investment management, and property management. The existence of these components enables waqf institutions to manage waqf effectively so that it can play an effective charitable role in developing Muslims. Zakariyah et al

(2022) improved cash waqf management in Malaysia by proposing a conceptual framework based on the Technology Acceptance Model (TAM) to improve cash waqf collection and investment through financial technology. This research addresses and elaborate the factors that influence the adoption of financial technology, including awareness, ease of use, attitude, and trust, in response to the demands of the 4th Industrial Revolution.

Al-Saudi (2022) discusses how blockchain technology can improve waqf management by providing features such as transparency and automated dispute resolution. This research specifically examines the use of blockchain-based sukuk to address the funding gap for the development of waqf assets and emphasizes the need for a supportive legal and regulatory framework to facilitate this integration. Salleh et al (2023) explored the feasibility of incorporating blockchain technology into the performance measurement system of waqf institutions in Malaysia, by addressing the gap in existing research that mainly focuses on quantitative aspects. Through interviews with experts in the field of Malaysian Fintech, this study highlights the need for an effective blockchain-based system to enhance the credibility and reliability of performance measurement in the waqf sector. The findings aim to contribute to the literature on the performance evaluation of waqf organizations.

CONCLUSION

This research aims to find out the extent of the development of research on the theme of "Waqf and Technology". The results of the study show that the number of research publications related to "Waqf and Technology" there are 291 journal articles indexed by Dimension. Furthermore, in the development of research related to "Waqf and Technology" based on bibliometric keyword mapping, the most used keywords are waqf, development, institution, zakat, country, challenge, intention, and blockchain. Based on the frequently used keywords, it is then grouped into 4 research map clusters with topics that discuss Crowdfunding Waqf, Digital Technology for Distribution of Waqf, Fintech Applications for Waqf Endowment, and Technology Adoption in Waqf Management. Future bibliometric studies can be developed, for example, by using bibliohiny-R (As-Salafiyah et al., 2022; Taqi et al., 2022; Puspita et al., 2023).

REFERENCES

Abd Mutalib, H., & Md Sabri, S. (2021). An assessment on information technology infrastructure readiness towards e-Waqf property management initiatives. Journal of Intellect, 16(1), 144-150.

Abdullah, M. (2018). Evolution in waqf jurisprudence and Islamic financial innovation. Journal of Islamic Monetary Economics and Finance, 4(1), 161-182.

Ahmad, Z., Ahmed, M., & Mokal, M. N. (2023). Waqf Management Through Fintech in Malaysia. Journal of Islamic Finance, 12(2), 114-125.

Aldeen, K. N., Ratih, I. S., & Herianingrum, S. (2020). Contemporary issues on cash waqf: A review of the literature. International Journal of Islamic Economics and Finance (IJIEF), 3(2), 119-144.

Almomani, M. A. A., AbuAlhoul, M. A., Alqudah, M. T. S., & Al-Khalidi, I. K. S. (2024). Exploring Digital Waqf Management: Opportunities and Challenges. International Journal of Religion, 5(12), 20-30.

Al-Saudi, H. A. (2022, April). Waqf Fund Management and the Blockchain Horizon. In Eurasia Business and Economics Society Conference (pp. 271-284). Cham: Springer Nature Switzerland.

Anam, M. S., Ahmad, R. S., Ali, R. A., & Rosia, R. (2022). Waqf and Environment: A Bibliometric Analysis. Shirkah: Journal of Economics and Business, 7(2), 201-218.

As-Salafiyah, A., & Marlina, L. (2022). Mapping research on Islamic fintech using biblioshiny-R. *Journal of Islamic Economics Literatures*, *3*(2).

Azganin, H., Kassim, S., & Sa'ad, A. A. (2021). Proposed waqf crowdfunding models for small farmers and the required parameters for their application. Islamic Economic Studies, 29(1), 2-17.

Berakon, I., Aji, H. M., & Hafizi, M. R. (2022). Impact of digital Sharia banking systems on cash-waqf among Indonesian Muslim youth. Journal of Islamic Marketing, 13(7), 1551-1573

Budiman, M. A. (2014). The significance of waqf for economic development. Journal of Equilibrium, 2(1), 19-34.

Fanani, A., Kuncoro, A. W., bin Muhammad Husni, A., & Wijayanti, E. A. (2021). The contribution of waqf on poverty alleviation through digital platforms: A case of Indonesia. Shirkah: Journal of Economics and Business, 6(2), 246-261.

Fikri, M. K., & Andrean, R. (2023). Development of sustainable Tamanu industry in Indonesia based on the green waqf model through sharia crowdfunding platforms. Review of Islamic Social Finance and Entrepreneurship, 77-89.

Ghaouri, M. H., Kassim, S., & Rashid, H. (2023). Waqf-Linked Islamic fintech microfinance as a business enabler in post-pandemic economy: the experience of Hal microfinance, Kenya. In From Industry 4.0 to Industry 5.0: Mapping the Transitions (pp. 357-370). Cham: Springer Nature Switzerland.

Hapsari, M. I., Bin Mohd Thas Thaker, M. A., Mohammed, M. O., & Duasa, J. (2022a). A qualitative investigation into crowdfunding framework as a source of financing for waqf land development. Journal of Islamic Accounting and Business Research, 13(3), 425-443.

Hapsari, M. I., Thaker, M. A. B. M. T., Mohammed, M. O., & Duasa, J. (2022b). The likelihood of using crowdfunding-Waqf model in Malaysia. International Journal of Ethics and Systems, 38(4), 682-701.

Hasbulah, M. H., Shuib, M. S., Asni, F., Ahmad, K. A., Hashom, H., & Mustafa, W. A. (2024). Implementation of Technology in Cash Waqf: A Structured Literature Review. Journal of Advanced Research in Applied Sciences and Engineering Technology, 89-103.

Hassan, N., Abdul-Rahman, A., & Yazid, Z. (2018). Developing a new framework of waqf management. International Journal of Academic Research in Business and Social Sciences, 8(2), 287-305.

Ibrahim, D., Ibrahim, H., & Masron, T. A. (2021). Waqf efficiency and its transformative technology in improving the waqf system in Malaysia. In Artificial Intelligence and Islamic Finance (pp. 29-47). Routledge.

Kartini, K. P., & Muarrifah, S. (2023). Transformation Of The Role Of Technology In The Collection And Distribution Of Social Funds. Indonesian Multidisciplinary Journal, 2(12).

Kasmon, B., Ibrahim, S. S., Daud, D., Raja Hisham, R. R. I., & Ratnasari, R. T. (2024). Future behavior in waqf digitalization: integrating UTAUT and DIT theories. Journal of Islamic Marketing.

Khalifah, M. H., Kasri, R. A., & Aslan, H. (2024). Mapping the evolution of ZAKAH theme publications years 1964-2021: a bibliometric analysis. *Journal of Islamic Accounting and Business Research*, *15*(2), 265-290.

Masrizal, Sukmana, R., Trianto, B., & Zaimsyah, A. M. (2023). Determinant factors of crowdfunders' behavior in using crowdfunding waqf model in Indonesia: two competing models. Journal of Islamic Marketing, 14(7), 1793-1816.

Mi'raj, D. A., & Ulev, S. (2024). A bibliometric review of Islamic economics and finance bibliometric papers: an overview of the future of Islamic economics and finance. *Qualitative Research in Financial Markets*, 16(5), 993-1035.

Mohaiyadin, N. M. H., Aman, A., Palil, M. R., & Said, S. M. (2022). Addressing accountability and transparency challenges in waqf management using blockchain technology. Journal of Islamic Monetary Economics and Finance, 8, 53-80.

Mohd Thas Thaker, M. A. B. (2018). Factors influencing the adoption of the crowdfunding-waqf model (CWM) in the waqf land development. Journal of Islamic Marketing, 9(3), 578-597.

Mohd Thas Thaker, M. A. B., & Allah Pitchay, A. (2018). Developing waqf land through crowdfunding-waqf model (CWM): the case of Malaysia. Journal of Islamic Accounting and Business Research, 9(3), 448-456.

Mohsin, M. I. A., & Muneeza, A. (2019). Integrating waqf crowdfunding into the blockchain: A modern approach for creating a waqf market. In Fintech in Islamic finance (pp. 266-279). Routledge.

Napitupulu, R. M., & Sukmana, R. (2023). A Review of Fintech and Waqf Intersections in Academic Debates. ZISWAF: JOURNAL OF ZAKAT AND WAQF, 10(1), 44-64.

Napitupulu, R. M., Sukmana, R., & Rusydiana, A. S. (2024). Governance of Islamic social finance: learnings from existing literature. *International Journal of Islamic and Middle Eastern Finance and Management*, *17*(3), 552-571.

Nasution, A. D., & Medias, F. (2020, May). Waqf financing model through crowdfunding platform: an Indonesian perspective. In 1st Borobudur International Symposium on Humanities, Economics and Social Sciences (BIS-HESS 2019) (pp. 661-665). Atlantis Press.

Nurachmadi, S., Riyanto, S., & Mutaufiq, A. (2024). Waqf Utilization Strategies in Improving the Economic Welfare of the Muslim Community. International Journal of Sharia Business Management, 3(2), 109-115.

Nurdany, A. (2019). Ensuring the determinants of waqf in Indonesia: Does religiosity matter? Journal of Islamic Economics & Finance, 5(1), 18-24.

Nurjanah, S., & Hasanah, U. (2021). Cash Waqf as Source of Funding for Fintech Startups. International Journal of Islamic Economics, 3(1).

Özdemir, M., & Selçuk, M. (2021). A bibliometric analysis of the International Journal of Islamic and

Middle Eastern Finance and Management. *International Journal of Islamic and Middle Eastern Finance and Management*, *14*(4), 767-791.

Puspita, A. T., Rahardjo, S., & Rahayu, S. S. (2023). Review on Halal Cluster. *Halal Tourism and Pilgrimage*, *3*(2). https://doi.org/10.58968/htp.v3i2.369

Rusydiana, A. S., Irfany, M. I., As-Salafiyah, A., & Tieman, M. (2023). Halal supply chain: A bibliometric analysis. *Journal of Islamic Marketing*, *14*(12), 3009-3032.

Rusydiana, A. S. (2021). Bibliometric analysis of journals, authors, and topics related to COVID-19 and Islamic finance listed in the Dimensions database by Biblioshiny. *Science Editing*, *8*(1), 72-78.

Salleh, N., Kassim, S., Muhammad, N. M., Yusoff, S. S. M., Mahadi, N. F., & Ariffin, K. M. (2023, October). Application of Blockchain Technology in the Management of Waqf Institutions: Concepts, Challenges and Recommendations. In 2023 IEEE International Conference on Computing (ICOCO) (pp. 369-374). IEEE.

Sulistyowati. (2023). Encouraging the Islamic endowment's achievement through digital technology. International Journal of Management Studies and Social Science Research, 5(2), 25-31. https://doi.org/10.56293/ijmsssr.2022.4571

Taqi, M., Sabaruddinsah, S., & Rusydiana, A. S. (2022). Audit Zakat Research: A Bibliometic Analysis. *Amwaluna: Jurnal Ekonomi dan Keuangan Syariah*, *6*(1), 15-28.

Thaker, M. A. M. T., Thaker, H. M. T., & Pitchay, A. A. (2018). Modeling crowdfunders' behavioral intention to adopt the crowdfunding-waqf model (CWM) in Malaysia: The theory of the technology acceptance model. International Journal of Islamic and Middle Eastern Finance and Management, 11(2), 231-249.

Uluyol, B., Secinaro, S., Calandra, D., & Lanzalonga, F. (2021). Mapping waqf research: a thirty-year bibliometric analysis. Journal of Islamic Accounting and Business Research, 12(5), 748-767.

Yelkenci, N. S. I., & Bulut, M. (2024). Ottoman Cash Waqf Contracts and the Transactions from the Fifteenth to Nineteenth Centuries: A Source for the New Cash Waqf Fintech Contract Model and SDGs. In Islamic Financial Institutions from the Early Modern Period to the 20th Century: Comparative Perspectives on the History and Development of Cash Waqfs (pp. 7-19). Cham: Springer Nature Switzerland.

Yenice, A. C., Ozdemir, M., & Koc, A. (2022). Looking at the 'Big Picture'in Islamic Economics and Finance Literature A Bibliometric Analysis of WoS Indexed Documents. *Turkish Journal of Islamic Economics*, *9*(1).

Yoshida, E. (2019). FinTech-enabled cash waqf: effective intermediary of social finance: Islamic social finance. Revitalization of Waqf for Socio-Economic Development, Volume I, 43-58.

Zain, N. R. M., Mahadi, N. F., & Noor, A. M. (2019). The potential in reviving waqf through crowdfunding technology: a case study. Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilization (ISTAC).

Zakariyah, H., Othman, A. H. A., Rosman, R., & Olanrewaju, A. S. (2021). Risk mitigation for cash Waqf collection using financial technology and Internet of Things. In Artificial intelligence and Islamic finance (pp. 210-221). Routledge.

Zakariyah, H., Salaudeen, A. O., Othman, A. H. A., & Rosman, R. (2022). Enhancing waqf management through fintech in Malaysia. Journal of Emerging Economies and Islamic Research, 10(2), 62-73.

Zakariyah, H., Salaudeen, A. O., Othman, A. H. A., & Rosman, R. (2023). The determinants of financial technology adoption amongst Malaysian waqf institutions. International Journal of Social Economics, 50(9), 1302-1322.