



## LEGAL BARRIERS AND OPPORTUNITIES IN THE DIGITAL TRANSFORMATION OF WAQF MANAGEMENT IN MALAYSIA: A CRITICAL ANALYSIS

AZWINA WATI BINTI ABDULL MANAF

Faculty of Law, Multimedia University.

Email: [azwina.manaf@mmu.edu.my](mailto:azwina.manaf@mmu.edu.my)

WONG HUA SIONG

Faculty of Law, Multimedia University.

Email: [hswong@mmu.edu.my](mailto:hswong@mmu.edu.my)

HAFIZA BINTI ABDUL RAZAK

Faculty of Law, Multimedia University.

Email: [hafiza.razak@mmu.edu.my](mailto:hafiza.razak@mmu.edu.my)

A PEER-REVIEWED ARTICLE

(RECEIVED – 9<sup>TH</sup> OCT. 2024; REVISED – 28<sup>TH</sup> JAN. 2025; ACCEPTED – 6<sup>TH</sup> MAC 2025)

### ABSTRACT

Ambiguities surrounding the Shariah compatibility of blockchain and smart contracts, coupled with insufficient data protection measures, pose risks to the integrity of waqf management. However, opportunities exist to modernize waqf practices by expanding the CCA and PDPA, ensuring enhanced cybersecurity and data privacy. This article critically analyzes the legal barriers and opportunities in the digital transformation of waqf management in Malaysia. The primary objective is to identify the regulatory challenges and explore potential reforms necessary for integrating digital technologies like blockchain and online fundraising platforms into waqf administration. The research employs a qualitative approach, examining Malaysia's existing legal framework, including state-based Islamic law, the Personal Data Protection Act (PDPA), and the Computer Crimes Act (CCA), in conjunction with Shariah compliance. The findings reveal significant legal gaps, particularly in regulating digital tools under current waqf laws. The article underscores the need for a harmonized legal framework that accommodates technological advancements while preserving

Islamic principles. Future reforms should focus on creating a standardized digital governance model for waqf institutions across states, facilitating better regulatory compliance and promoting transparency. The study has implications for policymakers, waqf administrators, and legal scholars in enhancing waqf's socio-economic impact in the digital era.

**Keywords:** digital transformation; legal barriers; waqf management.

## INTRODUCTION

Waqf, a longstanding Islamic institution, plays a crucial role in supporting religious, educational, and social welfare activities across Muslim societies, including Malaysia. Traditionally, waqf assets such as land and buildings were managed under a state-based system governed by Islamic religious councils (Majlis Agama Islam Negeri or MAIN) in each Malaysian state, which act as sole trustees of waqf properties. This decentralized management system, while preserving Islamic principles, often faces challenges related to governance, transparency, and the underutilization of waqf assets. Waqf in Malaysia is governed by Department of Awqaf, Zakat and Hajj (JAWHAR). It was established on 27 March 2004 equivalent to 6 Safar 1425H by the former Prime Minister Y.A. Bhg Tun Abdullah bin Ahmad Badawi while announcing the cabinet of the Malaysian government. The establishment of this department is the starting point in the efforts of the Federal Government to help develop the property of Muslims as a source of wealth and strength of the ummah in the future.

In Malaysia, waqf management has historically been decentralized, with each state overseeing the administration of its waqf properties through its Majlis Agama Islam Negeri (MAIN), or State Islamic Religious Councils. MAIN acts as the sole trustee for waqf assets, ensuring that properties endowed for charitable, religious, or educational purposes are managed by Islamic principles. The councils are responsible for registering waqf properties, ensuring their upkeep, and distributing income from these assets to benefit the community. This traditional system is governed by a mix of state enactments and Islamic law, with each state enacting its regulations to manage waqf within its jurisdiction.

Despite this framework, waqf management in Malaysia faces several challenges. One major issue is transparency. Due to decentralized governance,

there is often limited public access to information on the management and utilization of waqf assets, leading to concerns about accountability. Additionally, waqf assets are underutilized. Many waqf properties, particularly land, remain undeveloped or poorly managed, reducing their potential to generate income for social welfare. Administrative inefficiencies further compound these problems, with bureaucratic delays and inconsistent management practices across states hindering the effective administration of waqf properties.

## **LITERATURE REVIEW**

The digital transformation of waqf management in Malaysia has been a topic of growing interest, as it promises to enhance the efficiency and transparency of this longstanding Islamic charitable institution (Khamis & Salleh, 2018). However, the process is not without its legal barriers, which must be carefully navigated to unlock the full potential of digital technologies in this domain. One of the primary challenges lies in the institutional structure of waqf management in Malaysia which can sometimes impede the adoption of more innovative and technology-driven approaches. This is due to the perception that waqf is primarily a religious matter, and any changes to its administration must be approved by the relevant religious authorities. (Raja Adnan et al., 2021).

In recent years, Malaysia has begun to explore digital solutions to modernize waqf management, to address the challenges of transparency, underutilization, and inefficiency. Digital technologies such as blockchain, online fundraising platforms, and digital databases have been introduced as tools to streamline the management and utilization of waqf assets (NMH, Mohiyadin et al, 2022).

By using digital technology, waqf can have a broader and more significant impact on the social and economic welfare of society. Waqf can reach more people and communities in need with the help of digital technology (Asyari et al, 2024). Waqf institutions can promote their waqf projects widely and reach potential donors from all over the world by using crowdfunding platforms and social media.

Blockchain technology offers a decentralized digital ledger that provides an immutable and transparent record of transactions. For waqf, this ensures that donations and asset management activities are permanently recorded and accessible to the public, significantly improving transparency and accountability

(N, Salleh et al, 2023). Similarly, online fundraising platforms on the other hand allow waqf institutions to reach a global audience, enabling easier and wider access to potential donors. These platforms not only simplify the donation process but also provide real-time updates on how funds are used, fostering greater trust among donors (Suhaili, NA, 2017).

Besides, digital databases improve record-keeping and asset management, enabling waqf administrators to track properties and income more efficiently and make informed decisions about their development and allocation. These digital tools collectively promise several benefits, including enhanced transparency, efficiency, and accountability in waqf management. By reducing administrative burdens and improving access to information, digital technologies can help unlock the full potential of waqf assets, allowing them to better serve their intended charitable purposes (Ihsan, Hidayatul, 2020).

This institutional barrier is further compounded by the legal complexities surrounding waqf in Malaysia. The legal framework governing waqf is often rigid and traditional, making it challenging to incorporate modern financial instruments and digital technologies into waqf management. For instance, the legal requirements for establishing and administering a waqf can be cumbersome, hindering the ability to efficiently pool and manage waqf assets through innovative mechanisms like unit trust waqf (Abd Jalil, Mohamad Isa, 2020). Despite these challenges, there are also significant opportunities for the digital transformation of waqf management in Malaysia.

## **RESEARCH OBJECTIVE**

This study aims to analyse the legal barriers and explore the opportunities in adopting digital technologies for waqf management in Malaysia. While digital tools offer promising solutions to long-standing inefficiencies, their integration into the traditional waqf system poses significant legal challenges. These include questions of Shariah compliance, data protection, and cybersecurity, as well as the absence of a clear regulatory framework governing the use of digital platforms in waqf management. The study will critically examine the current legal landscape and propose reforms to ensure that digital waqf management can be implemented in a manner that is both legally compliant and aligned with Islamic principles.

By exploring these issues, this study seeks to provide insights into how Malaysia can modernize its waqf management system, leveraging digital tools to improve governance while safeguarding the religious and legal integrity of waqf assets.

## **PROBLEM STATEMENT**

In recent years, Malaysia has explored the integration of digital technologies such as blockchain and online fundraising platforms into waqf management. These technologies promise enhanced transparency, efficiency, and accountability. Blockchain, for instance, enables immutable records of transactions, reducing risks of mismanagement, while online platforms offer global reach for donations, expanding the resource pool for waqf projects.

However, despite these advancements, the legal framework governing digital waqf management remains underdeveloped, raising concerns about regulatory gaps, Shariah compliance, and data protection. Thus, this paper critically examines the legal challenges and opportunities presented by digital transformation in waqf management, highlighting the need for comprehensive legal reforms to ensure both technological innovation and adherence to Islamic principles.

## **RESULTS AND DISCUSSION**

### **Legal Framework Governing Waqf in Malaysia**

Waqf, an Islamic endowment, plays a crucial role in the socio-economic development of Muslim communities. In Malaysia, waqf management is shaped by a complex legal framework that reflects the country's dual legal system, combining federal and state laws with Islamic principles.

#### Current Legal Structure of Waqf in Malaysia

Waqf management in Malaysia operates under a decentralized system, where Islamic law, including waqf matters, is primarily the responsibility of the states. This division is mandated by the Federal Constitution of Malaysia, which places Islamic law under the jurisdiction of state governments. Consequently, each state in Malaysia has its own Islamic Religious Council, or *Majlis Agama Islam Negeri* (MAIN), responsible for the administration and management of waqf properties

within its territory. These councils act as the sole trustees of waqf assets, ensuring that they are utilized in accordance with Islamic principles and the intentions of the waqif (donor).

The federal government plays a supporting role in waqf management through agencies such as the JAWHAR), which coordinates and advises on waqf administration across different states. JAWHAR works on developing national policies and strategies for waqf development, including modernizing waqf management and introducing innovative financial instruments such as waqf-based sukuk (Islamic bonds) for financing large-scale projects. However, the primary responsibility for waqf remains with the states, leading to variations in waqf management practices and legal frameworks across Malaysia.

### Role of the Federal Constitution, State Enactments, and Islamic Law in Waqf Governance

The legal framework for waqf governance in Malaysia is rooted in both the Federal Constitution and state enactments, with each state enacting its own waqf laws. These laws are based on Islamic law but are adapted to meet the specific administrative needs of the state. The Federal Constitution's Ninth Schedule clearly allocates Islamic law, including waqf, to the state legislatures, giving them the authority to create, manage, and enforce waqf laws. As a result, waqf management in Malaysia is not uniform, and each state's Islamic Religious Council has the autonomy to manage its waqf properties as it sees fit, while still adhering to the broader principles of Islamic law.

Islamic law, or Shariah, plays a central role in waqf governance, particularly in ensuring that waqf assets are managed in perpetuity for charitable, educational, or religious purposes. Shariah law dictates that once a waqf is established, its assets cannot be sold, gifted, or inherited, ensuring the sustainability of the endowment. However, the integration of Shariah with state laws has created some challenges, particularly in adapting waqf practices to modern needs, such as the commercialization of waqf assets and their development for socio-economic purposes.

### **Existing Laws Relevant to Waqf and Technology**

As waqf management in Malaysia begins to incorporate digital technologies, such as blockchain and online fundraising platforms, the legal framework must evolve

to address new challenges. Two key pieces of legislation that intersect with digital waqf management are the Personal Data Protection Act (PDPA) 2010 and the Computer Crimes Act (CCA) 1997. However, both laws have limitations in effectively regulating the digital transformation of waqf.

(i) Personal Data Protection Act (PDPA)

The PDPA was enacted to safeguard personal data during commercial transactions. While the PDPA provides important protections for individuals' personal data, its application to waqf institutions remains ambiguous. Waqf institutions, particularly those under state religious councils, are often non-commercial entities and may not fall under the PDPA's jurisdiction. Furthermore, the PDPA excludes government agencies, including state bodies such as MAIN, from its scope. This creates a potential gap in the protection of personal data, especially as waqf institutions increasingly use digital platforms to collect donations and manage waqf assets. The lack of clear guidelines regarding the application of the PDPA to waqf institutions poses challenges in ensuring data privacy and compliance with modern data protection standards.

(ii) Computer Crimes Act (CCA)

The CCA, on the other hand, was introduced to address cybercrime in Malaysia. While the CCA provides a legal framework for prosecuting computer-related offenses such as hacking, fraud, and unauthorized access to data, it is considered outdated in the context of emerging technologies like blockchain. Digital waqf platforms that use blockchain and online fundraising are vulnerable to cyber threats, including data breaches and fraudulent activities. However, the CCA does not specifically address the unique cybersecurity risks associated with digital waqf management, leaving a gap in legal protections for waqf institutions. Expanding the CCA to cover the specific challenges faced by waqf institutions in the digital age would help safeguard these assets against cyber threats.

### **Role of Shariah Law in Waqf Transactions and Endowments**

At the core of waqf governance is Shariah law, which provides the religious and legal framework for waqf transactions and endowments. Shariah law governs the creation, administration, and perpetuity of waqf assets, ensuring that they are used for charitable, religious, or educational purposes in accordance with Islamic

principles. When a waqf is created, the donor (waqif) endows an asset, which is then managed by a trustee, often the state Islamic Religious Council, for the benefit of the community.

One of the central principles of Shariah law in waqf is the concept of perpetuity—waqf assets must be preserved, and their benefits used for the intended charitable purposes. This creates challenges when attempting to integrate new technologies such as blockchain and smart contracts, as these technologies introduce new complexities that may not fully align with traditional Shariah principles. For example, blockchain's decentralized and automated nature raises questions about who holds ultimate responsibility for the waqf assets and whether the immutable nature of blockchain records complies with Islamic requirements for transparency and accountability.

Shariah law also governs the types of assets that can be endowed as waqf, traditionally limiting them to physical assets such as land and buildings. The introduction of digital assets and online platforms for managing waqf donations challenges these traditional boundaries and requires new interpretations of Shariah to accommodate modern technological advancements.

In conclusion, the legal framework governing waqf in Malaysia is deeply rooted in a combination of federal and state laws, Islamic principles, and evolving modern legal frameworks. While the existing legal structure allows for the effective management of waqf under state Islamic councils, the adoption of digital technologies presents new challenges. Current laws such as the PDPA and CCA are insufficient to address the complexities of digital waqf management, particularly in areas like data protection and cybersecurity. Furthermore, the integration of digital tools with Shariah law presents challenges in ensuring compliance with Islamic principles while promoting transparency and efficiency in waqf transactions. Moving forward, a more comprehensive legal framework is needed to address these challenges, providing both the regulatory structure and the flexibility necessary for the digital transformation of waqf management in Malaysia.

### **Challenges in the Digital Transformation of Waqf Management**

The adoption of digital technologies, such as blockchain, online fundraising platforms, and digital databases, holds significant potential to modernize waqf management in Malaysia. These tools offer solutions to long-standing issues

related to transparency, administrative inefficiencies, and the underutilization of waqf assets. However, the digital transformation of waqf management faces critical challenges, particularly in the areas of regulatory gaps, Shariah compliance, data protection, privacy, and cybersecurity risks. Addressing these challenges is crucial to ensuring the successful and compliant integration of digital technologies into waqf management while safeguarding Islamic principles and legal standards.

### Regulatory Gaps in Waqf Management

One of the most significant challenges in the digital transformation of waqf management is the absence of specific laws addressing the use of blockchain and other digital platforms in waqf administration. The existing legal framework governing waqf in Malaysia is primarily based on traditional practices and state enactments, which do not account for the complexities introduced by digital technologies. Although blockchain offers a transparent and immutable record-keeping system, the lack of a legal framework governing its use in waqf management creates uncertainty around its legal standing. Without clear guidelines, waqf institutions may face difficulties in adopting blockchain technologies for asset management, fundraising, or transaction recording, as these tools remain unregulated.

In addition, there are ambiguities in Shariah compliance regarding the use of blockchain and smart contracts in waqf transactions. Shariah law mandates that waqf assets be held in perpetuity for charitable purposes, and any form of alteration or disposal is prohibited. Blockchain's decentralized nature, while enhancing transparency, introduces questions about who has ultimate control over waqf assets. Furthermore, smart contracts—self-executing contracts with predefined rules—may automate waqf transactions, but ensuring their alignment with Shariah principles is complex. For instance, smart contracts must ensure that the waqf's purpose is maintained without violating Islamic tenets regarding asset control and endowment continuity. These uncertainties necessitate comprehensive legal reforms to clarify the role of digital technologies within the Islamic legal framework.

### Data Protection and Privacy Concerns

As digital platforms become more widely used for waqf management, data protection and privacy have emerged as critical concerns. Waqf institutions often handle sensitive personal information about donors, beneficiaries, and the assets they manage. While Malaysia's Personal Data Protection Act (PDPA) 2010 provides legal safeguards for personal data in commercial transactions, its application to waqf institutions—many of which are state-run—is limited. Government agencies, including state Islamic Religious Councils, are exempt from the PDPA's scope, leaving a significant gap in the legal protection of personal data managed by these institutions. This lack of regulation exposes waqf institutions to potential risks, such as data breaches and unauthorized access, which could compromise the trust of donors and beneficiaries.

Another challenge lies in the issues with cross-border data transfers. As waqf institutions increasingly rely on global fundraising platforms and cloud-based digital storage, personal data may be transferred across borders. This raises concerns about compliance with international data protection standards, particularly in jurisdictions with weaker privacy laws. Malaysia's current data protection regime does not adequately address cross-border data flows, leaving waqf institutions vulnerable to potential legal liabilities when handling donor information from international contributors. Ensuring compliance with global data protection standards will require revisiting the legal framework to cover waqf-related data more comprehensively.

### Cybersecurity Risks

The digital transformation of waqf management also introduces new cybersecurity risks, which the current legal framework is ill-equipped to address. Waqf institutions, particularly those adopting blockchain, online fundraising, and digital databases, are increasingly susceptible to cyber threats, including hacking, ransomware attacks, and phishing scams. The CCA provides a legal basis for prosecuting cybercrimes, but its provisions are outdated and insufficient to deal with the sophisticated nature of modern cyber threats targeting waqf digital platforms.

For instance, blockchain technology, while secure in theory, is not immune to attacks, particularly if waqf institutions lack the necessary cybersecurity infrastructure. Moreover, online fundraising platforms, which are

now frequently used for waqf donations, may be vulnerable to fraud or unauthorized access if proper security measures are not implemented. The outdated provisions in the CCA do not adequately address the risks posed by these emerging technologies, making it difficult to prosecute cybercriminals targeting waqf institutions. Strengthening the CCA to cover the unique cybersecurity challenges faced by waqf institutions is essential to protect these platforms and the valuable assets they manage.

### **Case Studies and Comparative Analysis in Digital Waqf Implementations**

The digital transformation of waqf management presents numerous opportunities for enhancing transparency, efficiency, and accountability. As several countries adopt innovative technologies in managing waqf assets, a comparative analysis of their successes can provide valuable insights for Malaysia. This essay explores successful case studies of blockchain and online platforms in waqf management, compares approaches to digital waqf governance in countries such as Indonesia and Turkey, and highlights lessons learned from international practices.

Examples of Digital Waqf Implementations:

#### 1. Blockchain Technology in Waqf Management

One notable example of using blockchain technology in waqf management is WaqfChain, a project initiated in Malaysia. This initiative aims to create a decentralized platform for managing waqf assets, allowing for transparent tracking of donations and transactions. By utilizing blockchain, WaqfChain ensures that every transaction is recorded on an immutable ledger, enhancing accountability and trust among donors. The platform also allows waqf institutions to automate fund allocation using smart contracts, ensuring that funds are distributed according to the waqif's intentions. This innovative approach has the potential to revolutionize waqf management by providing a transparent and efficient system that aligns with Islamic principles.

#### 2. Online Fundraising Platforms

Another successful example is the Indonesian Waqf Fund Management Agency (BWI), which has leveraged online fundraising platforms to enhance its fundraising efforts. By utilizing digital platforms, BWI has expanded its reach,

allowing donors from around the world to contribute to waqf projects easily. These platforms provide transparency by allowing donors to track how their contributions are utilized, thus fostering greater trust in waqf institutions. BWI has successfully funded numerous projects, including educational institutions and healthcare facilities, demonstrating the potential of digital fundraising in maximizing the impact of waqf assets.

## **Comparative Analysis with Other Countries**

### 1. Indonesia's Digital Waqf Governance

Indonesia has taken significant steps toward modernizing its waqf management through the integration of digital technologies. The Indonesian government, in collaboration with various Islamic organizations, has developed comprehensive guidelines for digital waqf governance. These guidelines address the legal and operational aspects of utilizing digital platforms in waqf management, ensuring compliance with Islamic law and data protection standards. Furthermore, the Indonesian Waqf Agency actively promotes the use of digital fundraising platforms and blockchain technology, providing waqf institutions with the necessary tools to enhance transparency and efficiency in their operations.

### 2. Turkey's Innovative Approaches

Turkey also serves as an excellent example of effective digital waqf governance. The Turkish Directorate of Religious Affairs (Diyanet) has implemented a national online platform, Diyanet Waqf, which facilitates the management and distribution of waqf assets. This platform allows for real-time tracking of waqf donations and projects, ensuring transparency and accountability. Additionally, Turkey has developed regulations that specifically address the use of digital technologies in waqf management, ensuring that waqf institutions comply with both Islamic principles and modern legal standards. Turkey's proactive approach to digital waqf governance has resulted in increased public trust and engagement in waqf activities.

## **Lesson from other countries**

The experiences of Indonesia and Turkey provide several valuable insights into regulatory best practices and the adoption of technology in waqf systems globally.

### Clear Regulatory Frameworks

Both countries have established clear regulations governing the use of digital technologies in waqf management. This includes guidelines for compliance with Islamic law, data protection, and cybersecurity, providing waqf institutions with a solid legal foundation for adopting digital tools.

### Promotion of Transparency

The emphasis on transparency in managing waqf assets is a common theme in both Indonesia and Turkey. By implementing systems that allow donors and beneficiaries to track contributions and project developments, these countries have fostered greater public trust in waqf institutions.

### Collaboration with Technology Providers

Successful implementations of digital waqf management often involve partnerships between waqf institutions and technology providers. This collaboration enables waqf organizations to leverage cutting-edge technologies while ensuring that these tools are tailored to meet the specific needs of waqf management.

### Public Awareness and Engagement

Both Indonesia and Turkey have made concerted efforts to raise public awareness about the potential of waqf as a tool for socio-economic development. Engaging the community in waqf initiatives and highlighting the impact of donations can encourage greater participation and support.

Undeniably, the digital transformation of waqf management presents significant opportunities to enhance transparency, efficiency, and accountability. Successful case studies, such as WaqfChain in Malaysia and the Indonesian Waqf Fund Management Agency, demonstrate the potential of blockchain and online platforms in revolutionizing waqf administration. Comparative analysis with

countries like Indonesia and Turkey reveals that clear regulatory frameworks, emphasis on transparency, collaboration with technology providers, and public engagement are crucial for the effective adoption of digital technologies in waqf management.

As Malaysia embarks on its journey to modernize waqf management through digital solutions, these lessons from international practices can guide policymakers and waqf institutions in navigating the challenges and maximizing the benefits of digital transformation. By adopting best practices and addressing existing legal barriers, Malaysia can unlock the full potential of waqf assets to contribute to social and economic development in the digital age.

### **Implications for Policy and Practice in Digital Waqf Management**

The digital transformation of waqf management offers significant opportunities to enhance efficiency, transparency, and accountability. However, it also presents challenges that necessitate comprehensive policy responses and practical considerations. This essay explores the implications for policymakers, waqf administrators, and legal scholars and researchers, emphasizing the need for legal reforms, the importance of compliance with Islamic principles, and the opportunities for further research in the field of waqf digitization.

#### Implications for Policymakers

For policymakers, the shift toward digital waqf management highlights the urgent need for legal reforms that support the integration of technology within the waqf system. The existing legal framework governing waqf management in Malaysia lacks specific provisions addressing digital tools such as blockchain and online fundraising platforms. Therefore, comprehensive legal reforms are necessary to establish clear guidelines for the use of these technologies in waqf administration.

Policymakers should prioritize the development of a Shariah-compliant regulatory framework that accommodates digital waqf management while ensuring adherence to Islamic principles. This includes defining the legal status of digital waqf assets, clarifying the use of smart contracts, and addressing concerns regarding the control and management of waqf properties. Such a framework would provide waqf institutions with the legal certainty required to adopt digital tools confidently.

Furthermore, regulatory guidance is essential for ensuring that waqf institutions can navigate the complexities of integrating digital technologies while remaining compliant with existing laws and Shariah principles. Engaging with religious scholars, legal experts, and technology providers during the policy development process can facilitate the creation of a balanced and effective regulatory environment.

#### Implications for Waqf Administrators

Waqf administrators play a crucial role in the successful implementation of digital waqf management. As they explore the adoption of digital tools, these administrators must prioritize compliance with Islamic principles and legal requirements. This means ensuring that any technology used in waqf management aligns with the original intent of the waqif (donor) and adheres to Shariah guidelines.

The importance of adopting digital tools cannot be overstated. By leveraging technologies such as blockchain and online fundraising platforms, waqf administrators can enhance transparency, improve record-keeping, and streamline operations. However, administrators must also be vigilant in implementing robust data protection measures to safeguard sensitive information about donors and beneficiaries.

Training and capacity-building initiatives for waqf administrators will be essential in facilitating the transition to digital management. Providing comprehensive education on the use of digital tools, data protection laws, and compliance with Shariah principles will empower administrators to make informed decisions that enhance the effectiveness of waqf management.

#### Implications for Legal Scholars and Researchers

The digitization of waqf management presents numerous opportunities for further research into its legal implications. Legal scholars and researchers have a vital role in exploring the intersection of technology, law, and Islamic principles as they relate to waqf. Areas of inquiry may include the legal status of digital waqf assets, the enforceability of smart contracts in waqf transactions, and the impact of digital tools on the governance of waqf properties.

Furthermore, comparative studies examining how other countries have successfully integrated digital technologies into their waqf systems can provide

valuable insights for Malaysia. Research focused on the regulatory frameworks established in countries like Indonesia and Turkey can inform the development of tailored legal responses that align with Malaysia's unique socio-cultural and religious context.

Additionally, legal scholars can contribute to the ongoing discourse on data protection and privacy in the context of waqf management. Investigating the applicability of existing data protection laws, such as the Personal Data Protection Act (PDPA), to waqf institutions will be crucial in identifying gaps and recommending necessary reforms.

In conclusion, the implications of digital transformation for waqf management are multifaceted, affecting policymakers, waqf administrators, and legal scholars alike. For policymakers, the focus must be on implementing legal reforms and establishing a clear regulatory framework that supports the integration of digital tools while ensuring compliance with Islamic principles. Waqf administrators must prioritize the adoption of technology while maintaining adherence to legal and religious requirements, ensuring that digital tools enhance transparency and accountability. Meanwhile, legal scholars and researchers are positioned to explore the evolving legal landscape of digital waqf management, contributing to the development of informed policies and practices.

By addressing these implications thoughtfully and collaboratively, Malaysia can harness the full potential of digital waqf management, creating a more effective and impactful waqf system that benefits society as a whole.

## CONCLUSION

In conclusion, the digital transformation of waqf management in Malaysia presents significant opportunities to enhance transparency, efficiency, and accountability. However, it also faces considerable challenges due to regulatory gaps, ambiguities in Shariah compliance, data protection issues, and cybersecurity risks. The absence of specific laws governing blockchain and digital platforms in waqf management, coupled with uncertainties around Shariah compliance, creates barriers to the effective adoption of these technologies. Moreover, the limited application of the PDPA to state-run waqf institutions and the lack of provisions addressing cross-border data transfers expose waqf entities to privacy and security vulnerabilities. Finally, the outdated provisions of the CCA fail to

address the evolving cyber threats targeting waqf platforms, leaving these institutions at risk of cyberattacks.

To successfully integrate digital technologies into waqf management, Malaysia needs to undertake comprehensive legal reforms. These reforms should include clear guidelines on the use of blockchain and smart contracts in waqf transactions, extend the application of the PDPA to state-run waqf institutions, and enhance the CCA to address modern cyber threats. By addressing these legal challenges, Malaysia can unlock the full potential of digital waqf management while ensuring compliance with both Islamic principles and contemporary legal standards. A harmonized national legal framework is essential to standardize digital waqf practices across states while ensuring Shariah compliance. This could foster greater transparency and accountability in waqf management.

Future research should explore the integration of digital technologies into waqf systems in other jurisdictions, such as Indonesia and Turkey, to identify best practices. Comparative studies would provide valuable insights into how diverse legal frameworks can support the global advancement of digital waqf management.

### **ACKNOWLEDGEMENT**

The author would like to express her gratitude to the Research Management Centre, Multimedia University for funding this research.

### **REFERENCES**

- Abd Jalil, Mohamad Isa. (2020). Issues And Challenges Of Waqf Practice In Malaysia: A Review. *Labuan e-Journal of Muamalat and Society (LJMS)*. 14. 10.51200/ljms.v14i.2868. Abdul-Karim, S. (2010). Contemporary Shari'ah Structuring for the Development and Management of Waqf Assets in Singapore (Doctoral dissertation, Durham University).
- Alharthi, W. J. (2021). Using blockchain in waqf, wills and inheritance solutions in the Islamic system. *International Journal of Economics and Business Administration*, 9(2), 101-116.
- Ali, S. N., & Oseni, U. A. (Eds.). (2021). *Waqf development and innovation: Socio-economic and legal perspectives*. Routledge.

- 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. A. (2024). *Blockchain Technology and the Potential of Waqf Revival* (Doctoral dissertation, Hamad Bin Khalifa University (Qatar))
- Asyari, A., Hoque, M.E., Susanto, P., Begum, H., Awaluddin, A., Marwan, M. and Mamun, A.A. (2024), "Online cash waqf behavioral intention: the role of knowledge of cash waqf and trust", *Journal of Islamic Marketing*, Vol. 15 No. 11, pp. 2864-2890. <https://doi.org/10.1108/JIMA-07-2023-0224>
- Chowdhury, M. S., Ghazali, M. F., & Ibrahim, M. F. (2011). Economics of Cash Waqf Management in Malaysia: A Proposed Cash Waqf Model for Practitioners and Future Researchers. *African Journal of Business Management*, 5(30), 12155–12163.
- Ghaouri, M. H., Kassim, S. B., Othman, A. H. A., & Rashid, H. (2021). Harnessing blockchain for the development of Islamic social finance: an emphasis on Waqf. In *Artificial Intelligence and Islamic Finance* (pp. 165-180). Routledge.
- Habib, F., & Ahmad, A. U. F. (2020). Using blockchain and smart contracts for waqf institutions. In *Financial technology and disruptive innovation in ASEAN* (pp. 225-244). IGI Global.
- Hatimah, H., Sukoharsono, E. G., Djamhuri, A., & Adib, N. (2024). Exploring Waqf Management Transformation: Opportunities and Challenges (case study in Ismuhu Yahya Foundation Pontianak). *Journal of Ecobumanism*, 3(8), 58-68.
- Hilmi, H. (2012a). Dinamika Pengelolaan Wakaf Uang: Studi sosio-legal perilaku pengelolaan wakaf uang pasca pemberlakuan UU No. 41 tahun 2004 tentang wakaf. *Jurnal Wacana Hukum Islam Dan Kemanusiaan*, 12(2), 123–143.
- Hilmi, H. (2012b). Wakaf Uang Antara Fleksibilitas Berderma dan Sistim Ribawi. *Jurnal Pengembangan Masyarakat*, 5(1), 40–54.
- Hosseini, S. M. S., Salari, T. E., & Abadi, S. M. N. Z. (2014). Study of Cash Waqf and Its Impact on Poverty (Case Study of Iran). *Atlantic Review of Economics*, 2.

- Htay, S. N. N., Mohamed, M. O., & Osman, A. F. (2012). Determinants of Cash Waqf Giving in Malaysia: Survey of Selected Works. *In Workshop Antarbangsa Pembangunan Berteraskan Islam V (WAPI-5)*. Medan, Indonesia.
- Huda, N. (2021). Waqf blockchain in indonesia. *Al-Awqaf: Jurnal Wakaf Dan Ekonomi Islam*, 14(1), 31-49.
- Ihsan, Hidayatul & Eliyanora, Eliyanora & Fauzi, Nurul & Gustina, Gustina & Echchabi, Abdelghani. (2020). Strategies and Tools for Effective Awqaf Asset Management. 10.4108/eai.1-11-2019.2294009.
- Iman, A. H. M., & Mohammad, M. T. S. (2014). Waqf Property: Concept, Management, *Development, and Financing (1st ed.)*. *Johor Bahru*: PENERBIT UTM PRESS.
- Ismail, C. Z., Muda, S., & Hanafiah, N. J. A. (2014). Challenges and Prospects of Cash Waqf Development in Malaysia. *Journal of Basic and Applied Scientific Research*, 4(2), 340–348.
- Kader, S. Z. S. A. (2015). The Legal Framework of Waqf in Malaysia. Retrieved from <http://ssrn.com/abstract=2547440> 2.
- Kahf, M. (1999). Financing the Development of Awqaf Property. *American Journal of Islamic Social Sciences*, 16(4), 39–68.
- Kasmon, B., Ibrahim, S. S., Sharif, S. M., Ab Rahman, A., & Habidin, N. F. (2023). Potential Blockchain Applications in Waqf for Sustainability: A Middle East and Asia Perspective. *Islamiyyat*, 45(2), 47-64.
- Khamis, S., & Che Mohd Salleh, M. (2018). Study On The Efficiency Of Cash Waqf Management In Malaysia. *Journal of Islamic Monetary Economics and Finance*, 4(1), 61 - 84. <https://doi.org/10.21098/jimf.v4i1.732>
- Laili, N. H., Khairil, K. F., & Masruki, R. (2023). Review of Blockchain Technology in Managing Waqf (Endowment).
- Masruki, R. B. (2023). Review of Blockchain Technology in Managing Waqf (Endowment). *London Journal of Research In Humanities and Social Sciences*, 23(20), 35-52.
- Mohamed, D., Ahmed, M., Mohamed, M. A., & Mohamud, O. A. (2023). The Role of Blockchain Technology on Zakat Institutions, A Way Forward: Literature Review. *International Journal of Membrane Science and Technology*, 10(3).

- Mohaiyadin, Norlaila & Aman, Aini & Palil, Mohd & Said, Suzana. (2022). Addressing Accountability And Transparency Challenges In Waqf Management Using Blockchain Technology. *Journal of Islamic Monetary Economics and Finance*. 8. 10.21098/jimf.v8i0.1413.
- 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
- N. Salleh, S. Kassim, N. M. Muhammad, S. S. Mohd Yusoff, N. F. Mahadi and K. M. Ariffin, "Application of Blockchain Technology in the Management of Waqf Institutions: Concepts, Challenges and Recommendations," *2023 IEEE International Conference on Computing (ICOCO)*, Langkawi, Malaysia, 2023, pp. 369-374, doi: 10.1109/ICOCO59262.2023.10397676.
- Raja Adnan, R. A., Abdul Mutalib, M., & Ab Aziz, M. R. (2021). Factors necessary for effective corporate Waqf management for Malaysian Public Healthcare. *ISRA International Journal of Islamic Finance*, 14(1), 73–88. Retrieved from <https://doi.org/10.1108/ijif-11-2019-0178>
- Rohim, A. N., Priyatno, P. D., & Sari, L. P. (2022). Transformation of waqf management in the digital era: A meta synthesis study. *AL-FALAH: Journal of Islamic Economics*, 7(2), 209-226
- Saleh, A. O. H., Muayyad, D. M., & Fahd, A. S. (2023). The Potential Of Using Smart Contracts In Cash Waqf On Blockchain. *al-Qanatir: International Journal of Islamic Studies*, 32(2), 50-59.
- Santoso, B., & Zulfa, M. (2022, August). Blockchain Model to Support Waqf Management. In *International Conference on Intelligent Networking and Collaborative Systems* (pp. 328-338). Cham: Springer International Publishing.
- Sudi, D. M., Sarif, A., Wang, Y., & Zou, G. (2024). Optimizing Waqf as a Socio-Economic Financing Instrument in the Digital Era. *Sharia Oikonomia Law Journal*, 2(2), 139-150.
- Suhaili, N.A., & Palil, M.R. (2017). Crowdfunding : A Collaborative Waqf Based Internet Platform. *International Journal of Business, Economics and Law*, Vol. 11, Issue 5 (Dec.)

- Vidiati, C., Hendra, E., Santoso, S., & Faturrizky, I. (2021). What blockchain technology can do to contribute to Waqf. *al-Afkar, Journal For Islamic Studies*, 53-71.
- Wildana, M. D. A., & Imamia, T. L. (2022, April). Waqf in the 21st Century: The Implementation of Blockchain and Smart Contract Technology. In *Journal of International Conference Proceedings* (Vol. 5, No. 1, pp. 456-466).
- Yaacob, H., Petra, S., Sumardi, A., & Nahar, H. S. (2012). Awqaf Accounting and Reporting for Accountability: A Case Study of Awqaf S. In *The 19th International Business Research Conference. Melbourne*.<http://www.esyariah.gov.my> <http://www.jawhar.gov.my>
- Zulaikha, S., & Rusmita, S. A. (2018). Blockchain for waqf management. *KnE Social Sciences*.
- Zulkarnaen, D., Mukhlisin, M., & Pramono, S. E. (2021). Can Blockchain Technology Improve Accountability and Transparency of Cash Waqf in Indonesia?. *Journal of Economic Impact*, 3(3), 158-166.