

# FINTECH INTEGRATION IN THE FINANCIAL MANAGEMENT OF ISLAMIC SOCIAL ENTERPRISES

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## Abstract

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Financial technology (FinTech) is seen as a solution to challenges such as a lack of transparency, inefficiency, and time consumption. This study investigates the adoption of FinTech in the financial management of mosque institutions within the context of Islamic social enterprises (ISEs). It specifically examines the areas of FinTech adoption within these institutions and the challenges encountered during the adoption process. Using a qualitative research design, data were gathered through interviews with six mosques involved in FinTech initiatives. The findings highlight the integration of FinTech in areas such as collection, revenue management, disbursement, recording, and financial reporting. The study also identifies mosques as key institutions for fostering community engagement and promoting financial literacy, emphasising the importance of integrating FinTech into traditional practices. This paper contributes to the growing discourse on FinTech adoption in religious contexts, offering practical recommendations for leveraging ISE to overcome barriers and enhance community empowerment.

**Keywords:** Financial Technology (FinTech), Islamic Social Enterprise (ISE), Financial Management, Mosques, Islamic Accounting

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## 1. INTRODUCTION

Mosque institutions continuously play significant roles as agents of change in connecting different levels of the Muslim community, bridging the gap between the wealthy and the poor, and thus fostering elements of unity. It serves as a centre for spiritual, social, and educational initiatives. With

the broadening of its roles compared to its past established functions, mosque institutions also provide charitable assistance to the needy visitors, as well as organising events to attract and engage with the community. The mosque should remain relevant and contribute to the Muslim community in more extensive ways, and this led to the expansion of its roles to gain its own income to support its activities (Maulidizen et al., 2024).

The authority's provision is no longer able to cover its operational cost, while at the same time should contribute to social finance activities. Because of this limitation, some mosque institutions are actively involved in Islamic social enterprise (ISE) activities in addition to the main income gathered from donations from the public. To some extent, some mosques around the world are starting to provide business training and financing for the local business owners (Rasati & Priyadi, 2024). The expansion of their roles leads to an increase in additional financial management activities handled by these institutions.

Given these extensive roles played by the mosque, having proper financial management practices is important to ensure that the stakeholders are fully intact about the mosque's institutions' activities through disclosure. This approach will increase the confidence of the stakeholders and thus ensure the financial sustainability of these institutions in the long term. However, lack of accountability, lack of compliance with reporting guidelines, unskilled staff, and weak internal control are among the challenges that can weaken the mosque administration and financial management (Mohamed et al., 2023).

Undeniably, financial technology (FinTech) offers opportunities to increase financial management efficiency. FinTech is the application of technology to finance (AlBaker, 2024; Arner et al., 2017; Imeraj et al., 2025). FinTech is a field of digital technologies to enhance and innovate financial services, making them more accessible, efficient, and user-friendly. By utilising technologies like software, data processing, cloud computing, and artificial intelligence, FinTech spans a variety of applications, including digital payments, online lending, blockchain and cryptocurrencies, robo-advisors, and insurance technology (InsurTech). In this way, FinTech has the potential to revolutionise traditional financial services, providing faster, more affordable, and personalised solutions for both consumers and businesses (Ajouz et al., 2022). FinTech undeniably can disrupt and change the landscape of commercial finance, businesses, as well as social finance. Commercial banking and finance institutions adopt FinTech in the whole chain of product offering or in the selected chain, such as at the distribution of the products phase.

A lot of research has explored how FinTech is reimagining business models in the private sector, especially in the financial industry, with firms competing and cooperating to create valuable financial services (Sibanda et al., 2020). However, there is limited research on how FinTech is adopted in social entities, including ISEs. This includes how they develop business models, manage strategies, and organise internal resources using FinTech. As part of social finance arms, mosques nowadays play important roles in generating charity-based income, which makes their activities diverse to include collections and distribution of funds beyond mosque premises. Shacklewell Lane mosque in the United Kingdom is one of the mosques that integrates FinTech and accepts zakat in the form of bitcoin, not merely the traditional approach (Nienhaus, 2019).

The usage of FinTech in mosque institutions, although new, provides opportunities to increase their efficiency. These relate to financial management areas such as fund collection and income generation, reporting, and fund disbursement.

This led to the objective of the study, which is to investigate the adoption of FinTech in the financial management of mosque institutions within the context of the ISE. Specifically, it examines the areas of FinTech adoption within these institutions and the challenges encountered during the adoption process. To achieve this, data were gathered through interviews with six mosques involved in FinTech initiatives in Malaysia. It is believed that this study on FinTech adoption is important for establishing financial management best practices in mosques within the ISE framework. At the same time, the study also seeks to address the issues faced by mosque management in adopting FinTech.

The rest of this paper is structured as follows. Section 2 discusses the background of mosque institutions as part of the ISE framework, followed by a discussion on the relationship between FinTech and financial management practices in the ISE. Next, Section 3 explains the methodology used to gather the necessary information and the analysis conducted to address the objective of the study, which is to investigate the adoption of FinTech in the financial management of mosque institutions within the context of the ISE. Section 4 briefly elaborates on the findings of the study, covering governance and economic activities, as well as FinTech adoption practices and the challenges faced by mosques as part of the ISE framework. The final Section 5 concludes the study by highlighting its implications, contributions, limitations, and suggestions for future research.

## 2. LITERATURE REVIEW

### 2.1. Mosque institutions as Islamic social enterprise

ISE emerged as an innovative organization that adopts normal profit-based business strategies while at the same time focusing on non-profit objectives, embedded with Islamic principles and values (Muhammed et al., 2018). Based on this concept, Kamaruddin and Auzair (2018) classified ISE based on economic sectors consist of: 1) public sector; 2) private sector; 3) non-profit sector. From Islamic spheres, there are specific rules that should be followed by ISE, including generating and regenerating income to facilitate the ummah (Muslim society) welfare (Fahmi & Zulhamdi, 2023). These objectives are to fulfil the needs of the poor and provide financial and non-financial assistance during misfortune. In addition, ISE should also inculcate the Shariah contracts and principles as well as eliminate elements of prohibitions (such as interest, gambling, uncertainty, and alcohol and pork) in their business activities.

The basis for ISE can be traced back to early Islamic practices such as zakat, waqf, and sadaqah. These institutions have long been mechanisms for supporting social welfare in the Muslim world. The evolution of modern ISE builds on these traditional practices but adapts them to current community and regulatory requirements. In theories, there is no specific definition of ISE as criticised in the past studies (Muhammed et al., 2018; Kamaruddin & Auzair, 2019). Muhammed et al. (2018) define ISE as an Islamic-based entity that gained funding (in the form of monetary and non-monetary assets) from Islamic charitable sources and channelled them into business activities for the purpose of

contributing to the needy and at the same time sustaining the contribution in the long term. Kamaruddin and Auzir (2019) propose the concept of the ISE that should consist of three criteria: 1) Islamic social objectives; 2) Islamic economic objectives; 3) other Islamic principles and values.

Mosques have become the centre of Muslim society since the era of the Prophet Muhammad. They are not merely places of worship but also evolve into several roles to serve the Muslim community. Mosques often serve as centres for social interaction and networking. They provide a space where people from different backgrounds — whether ethnic, social, or economic — can come together, strengthening the bonds of brotherhood and fostering social harmony. For example, mosques host events such as weddings, funerals, and festive celebrations, which help to bring the community together. These events promote a sense of belonging and cultural continuity, helping to preserve Islamic values and traditions in the face of rapid modernisation.

In Malaysia, mosque institutions are under the State Islamic Council and monitored by State Islamic Departments, which are responsible for Islamic affairs (Mohd Khalli & Mohd Sharif, 2024). There are 6,836 mosques and 18,360 surau (prayer hall) in Malaysia (Ahmad, 2023). In Malaysia, the specific almsgiving, such as zakat and waqf, is positioned under the Islamic state authority. As such, no other agencies are allowed to collect and use these funds without the authority's permission. In addition to providing venues for specific worship and religious events, mosques also act as hubs for the collection of the zakat, waqf, and sadaqah. The authorised mosques are delegated to distribute zakat funds to the poor, orphans, the elderly, and other vulnerable groups under the eight groups of zakat recipients.

Differently, sadaqah, as voluntary almsgiving, can be collected by the mosques from the public, and the collection is considered as income for the mosque. Income from these types of donations can be used by the mosque for its programs, not limited to the specific activities. Despite mosque institutions having their own income (through permitted collections) and being supported and monitored by the state Islamic department, as in the case of Malaysia, to a certain extent, they need to be self-independent. This is due to limitations in the financial provision given by these authority bodies, while at the same time, all expenses and tasks to provide financial assistance to the needy are expanding.

It is argued that more funds are needed to cover their large expenses, including operational costs, as well as to organise charity events, food distribution, and other outreach programs to assist those in need. As mosques are involved in various activities that contribute to the social, educational, and welfare needs of the community, involvement in economic activities via the ISE model is currently crucial to provide additional income. These trends can be seen in Malaysia and other countries, where among their activities are rental activities of business premises (kiosks, halls, and other assets) within the mosques' complex and premises, financial services offering, education services, agriculture, and others (Fahmi & Zulhamdi, 2023).

Based on the previous discussion, there are at least three main sources of income earned by mosques from their activities: 1) fund collection

from Islamic social finance; 2) government provision; 3) ISE economic activities of the mosque. Because of these diverse roles played by the mosque, this study asserted that the efficiency in their financial management practices is important and can help increase the trust of the stakeholders, and thus contribute to sustainable income for the mosques.

## 2.2. FinTech and financial management in Islamic social enterprise

Systematic financial management practices are increasingly important in ensuring all rights of stakeholders are protected. Stakeholders who support the social objectives expect their monetary contributions to create valuable benefits for the community at large and have a long-term impact on the beneficiaries. However, without proper planning and accountability, these resources may be unable to be utilised efficiently and traced in real time. Studies argued that Islamic-based entities such as waqf institutions faced challenges in terms of lack of transparency, accountability, mismanagement, and corruption (Owais & Ali, 2023). As these issues are unsolved, the potential of these institutions to have an impact on the community would not be unlocked. A similar situation can happen to mosque institutions. It is justifiable to note that FinTech can be one of the solutions to resolve the issue in the social finance sector due to its ability to uphold efficiency and transparency in these institutions.

A systematic financial management in mosques can help to optimise resources, ensuring that funds are used appropriately and provide good disclosure to the stakeholders. Said et al. (2013) in their studies on mosques' financial management use several variables under the financial management themes. They used audited financial reports; seminars, courses, and training on financial management are held, corporate values in the financial management of the mosque, an online system that allows donors to use the internet to transfer funds, distribution of final reports, and a proper accounting system (or Excel software system). Other studies include other practices such as financial disclosure, internal control, financial planning and budgeting, and financial performance management as part of the financial management themes (Kamaruddin et al., 2022; Kamaruddin & Ramli, 2017). Given the current advancement of digital technology, the adoption of FinTech can benefit more towards the financial management of mosque institutions compared to the previous technology.

As the income increases, it would enable many projects to be managed, with dedicated budgetary allocations for different activities, such as religious education, community outreach, maintenance of the mosque, and charitable initiatives. Financial reports should be regularly reviewed by mosque management committees to ensure that the mosque operates within its means and that funds are being spent in line with its mission. Financial transparency also builds trust within the community and encourages ongoing support from donors.

The fast evolution of FinTech impacted various sectors of the economy. For the banking and finance industry, FinTech reshapes the industry through cost-cutting, better and diverse financial products and services. FinTech refers to the integration of technology into the delivery of financial services, revolutionising the way individuals and businesses

access and utilise financial products and solutions (Zhang et al., 2020). FinTech evolution has four stages following different periods. It can be categorised into three levels: 1) low; 2) middle; 3) high levels (Wu et al., 2023). FinTech started with

the low-level stage, with the introduction of electronic banking services. Electronic banking, such as ATMs, has been present since the 1980s and followed by internet banking, which enables the usage of online banking services.

**Figure 1.** FinTech development



Source: Wu et al. (2023).

The presence of more advanced FinTech innovations, such as mobile banking to smart banking, significantly improves the accessibility, efficiency, and transparency of financial transactions, driving greater impact on communities worldwide. Innovative applications such as blockchain and smart contracts are also transforming finance and the non-financial industry. Blockchain's decentralised ledger provides a transparent and immutable record of transactions, which enhances the accountability of the company.

In addition, the FinTech evolution disrupts traditional banking with the development of FinTech platforms focused on donation-based crowdfunding, equity, and peer-to-peer (P2P) lending. The current development has also enabled a new wave of social entrepreneurship and community-driven development, allowing individuals to participate in social enterprises and charitable causes that adhere to Islamic principles, providing a new avenue for social impact projects. These innovations offer greater flexibility, transparency, and reach for both donors and recipients, increasing the scale and impact of Islamic social finance initiatives (Kamaruddin, Hanefah et al., 2023).

This intersection between FinTech and social enterprise presents an intriguing area for exploration, as the potential for innovation and social impact becomes increasingly apparent (Pankaj & Seetharaman, 2021). FinTech has been recognised as a key driver for financial development, inclusion, and sustainable growth (Saliger et al., 2020). The intersection of FinTech and Islamic social finance offers potential for enhancing access to the social agenda, either for the contributors or the beneficiaries. FinTech is argued not to benefit and confined to financial institutions only; however, it also contributes to an increase in the funds collection, minimizes the operational cost and time in managing relief care and social support activities, including mosque institutions (Hamzah et al., 2023).

By ensuring that funds are used for their intended purposes, these technologies foster greater trust and participation in ISE initiatives, wherein the mosque plays the role. Similarly, smart contracts automate processes like zakat distribution or waqf fund allocation, reducing administrative costs and ensuring compliance with Shariah law, making these social finance tools more efficient and scalable. This aligns with previous suggestions that FinTech tools are employed in the distribution of Islamic social finance funds to facilitate and expedite the process

(Ahmad & Yahaya, 2023; Marwini & Salam, 2023). Besides, FinTech adoption also positively contributes to reducing income inequality within communities (Imeraj et al., 2025). Meanwhile, from an institutional perspective, an increase in FinTech adoption practices positively affects the financial management and performance of organizations (AlBaker, 2024).

However, despite these promising advancements, the integration of FinTech in Islamic social finance faces several challenges. Regulatory frameworks for FinTech are still evolving, and this development requires Shariah compliance across diverse technological platforms. Additionally, digital literacy and internet access in underserved regions may limit the widespread adoption of FinTech solutions. Therefore, investigating FinTech adoption is crucial for enhancing the effectiveness of ISEs in achieving social and financial objectives, as well as improving operational practices.

### 3. RESEARCH METHODOLOGY

This study adopts a qualitative approach, using structured interviews as the main data collection method. This approach is selected to enable the data to be in-depth and rigorous, and provides the actual context for the study (Kamaruddin, Muhamed, et al., 2023). Structured interviews, as a method of data collection for the study, offer several advantages in this context. Interviewing individuals directly involved in financial management is ideal for identifying the details of actual activities, including FinTech adoption practices (Muhamed et al., 2025). Alternatively, observation and survey methods can be employed, especially to capture general perspectives on FinTech adoption.

These mosques were selected based on three main criteria: 1) their objectives are to uphold Islamic values and social agenda; 2) they are involved in economic activities; 3) they are adopting FinTech. These mosques are known for their active ISE activities and generate income from those activities. The selection fits with other studies (Kamaruddin & Auzair, 2018; Muhamed et al., 2018; Maulidizen et al., 2024). In addition, the respondents consist of individuals who are in charge of financial management activities and who have knowledge in managing those activities. They consist of treasurers, financial managers, and financial officers. Table 1 provides information on the selected respondents.

**Table 1.** List of selected respondents

<i>Institution</i>	<i>ISE location</i>	<i>Respondent position</i>
ISE 1	Bangi, Selangor	Treasurer
ISE 2	Seremban, Negeri Sembilan	Treasurer
ISE 3	Merbok, Kedah	Finance manager
ISE 4	Sungai Petani, Kedah	Financial officer
ISE 5	Sendayan, Negeri Sembilan	Imam (financial officer)
ISE 6	Putrajaya	Imam (manager)

By utilising a structured interview approach, researchers can better understand how mosque representatives perceive their initiatives on the adoption of FinTech to smooth their activities and identify challenges, such as in applying FinTech to managing the funds. The structured format also aids in minimising interviewer bias, as each respondent is asked the same set of questions in the same order, enhancing the comparability and reliability of the data. Interview protocols were developed prior interview process. Several questions were developed and asked of the respondents, and these include:

1. The economic activities that have been initiated by the mosque.
2. Area of FinTech adoption.
3. Challenges faced in FinTech adoption.

The data collection process was conducted in July 2024. The data collected from the interviews will be analysed using thematic analysis. In this case, the data will be read through, and the pattern that emerges based on the meaning of the data will be determined and grouped through this process.

#### 4. FINDINGS AND DISCUSSIONS

The data was organised into several themes which cover ISE economic activities, their income, and FinTech adoption and challenges. The selected mosques are located in three states, with all of them generating revenues from Islamic social finance fund collection and other economic activities. Data collection from interviews reveals several aspects, including mosques' governance and economic activities, as well as mosques' FinTech adoption in financial management practices and their challenges.

##### 4.1. Mosques' governance and economic activities

Mosques and surau (prayer hall) are two categories of Muslim worship premises that are recognised by the authority bodies at the federal and state levels. Based on the locality, the mosques can be further categorised into based on institutions and districts. Of the total six mosques involved in the study, four of them are state mosques, one federal mosque, and one is a private mosque.

There are slight differences between these institutions in their governance and, thus, financial management practices. Treasurer (ISE 1) highlighted the governance of the state mosque and the regulations that they need to follow, which are ruled by the State Islamic Departments. ISE 1 highlighted:

*"...because all the mosques in this state are located under the supervision or care of by State Islamic Departments, appointment of the Mosque*

*Committee from Nazir, Imam, Siak, Bilal and others are usually appointed every three (3) years. Every three (3) years will change and there is an appointment..."* (ISE 1, personal communication, July 3, 2024).

Different from the other mosque, ISE 4 is a private mosque and has differences in terms of governance and establishment. This mosque has been established as and commercial legal entity and has become an umbrella for its branches. This organization has many entities, including the foundation. This aspect can be sought from the respondent from ISE 4:

*"... Our parent is a Sendirian Berhad and mosque is one of the subsidiaries..."* (ISE 4, personal communication, July 21, 2024).

Due to the different status of establishment, there are differences between the federal mosque and other types of mosques. Federal mosques are being governed directly under the Prime Minister's Office (PMO). They must follow the government circular like other government departments. Respondent from ISE 6 mentioned:

*"... The legal establishment of this mosque, it is a mosque, but at the same time it is also a government department which is a department under the Malaysian Islamic Development Department (JAKIM), which it is also under the Prime Minister's Department (JPM). We are reporting to JAKIM and indirectly to our top which is JPM..."* (ISE 6, personal communication, July 9, 2024).

The findings on the mosque's economic activities align with other studies that emphasize current trends in mosque institutions' activities globally. Many studies show that the mosques have expanded their roles into social enterprise activities (Rasati & Priyadi, 2024). All six mosques are involved in economically based initiatives, such as renting out premises, including shop lots, halls, and vending machines. Some mosques also offer additional services like selling goods, providing accommodation, and offering financial services such as hibah. Respondents stressed that participation in entrepreneurial activities is crucial to support social endeavours. Income from other sources is often insufficient to cover monthly expenses, such as electricity costs.

Findings also show that private mosques diversify the activities in many areas more than other types of mosques. Since their income depends mostly on their economic activities, these provide some motivational factors for them. The federal mosque, on the other hand, focuses on rental activities only, and this is perhaps due to the strict rules that they need to follow as a government department. The detailed activities of the selected mosques are presented in Table 2.

**Table 2.** Selected mosques' governance structure and economic activities

<i>Institution</i>	<i>Governance structure</i>	<i>Economic activities</i>
ISE 1	State mosque	<ul style="list-style-type: none"> <li>• Rent (shop lots, halls, vending machines, and billboards)</li> <li>• Selling goods</li> </ul>
ISE 2	Federal mosque	<ul style="list-style-type: none"> <li>• Rent (shop lots, halls, and vending machines)</li> </ul>
ISE 3	State mosque	<ul style="list-style-type: none"> <li>• Rent (shop lots and vending machines)</li> <li>• Selling goods and services, and hospitality (hotel)</li> </ul>
ISE 4	Private mosque	<ul style="list-style-type: none"> <li>• Hibah services</li> <li>• Rent (halls)</li> <li>• Selling goods and services</li> <li>• Agriculture business</li> </ul>
ISE 5	State mosque	<ul style="list-style-type: none"> <li>• Rent (halls)</li> </ul>
ISE 6	Federal mosque	<ul style="list-style-type: none"> <li>• Rent (shop lots, halls, and vending machines)</li> </ul>

#### 4.2. Mosques' FinTech adoption in financial management practices

As mosques expand their activities into entrepreneurship, the use of FinTech is contemplated as very crucial to streamline their operations and maintain sustainable financial management practices. Two questions were asked that relate to FinTech adoption. The questions cover two main aspects: 1) the areas where adoption has occurred and 2) the types of FinTech being utilised in their institutions. In addition, issues and challenges on adoption emerge during the interview, from the respondents' responses. Findings demonstrate that all mosques involved in this interview adopt FinTech in their activities, with the minimum adoption being online banking and QR code applications.

As the financial management practices are concerned, this study ascertains three main aspects that adopt FinTech from interviews. The first area is collection and disbursement. This aspect involves two main activities, which are the collection of Islamic social finance funds from individuals and organizations and income generation from economic activities; and the other one is disbursement (such as payment for salary, overhead expenses, and other payments). As noted by a respondent from ISE 3, the manual process of recording the collection amounts from the donation boxes can be time-consuming and labour-intensive. Implementing QR codes and online banking systems would significantly streamline this process, reducing

the time required to calculate the daily funds collected (ISE 3 and ISE 4).

By adopting these digital tools, the mosques can ensure quicker, more efficient tracking and management of donations, improving overall operational efficiency and accuracy in financial reporting. One positive aspect of using FinTech tools for fund collection and income generation is that the amount collected generally tends to increase due to the wide coverage and high volume of transactions resulting from public involvement. This finding supports the previous study by Azman et al. (2020), which states that the adoption of FinTech will indirectly increase fund collection and income generation by involving a wider range of contributors and customers. Besides, this finding is also similar to Hamzah et al. (2023), who highlight the benefits gained from FinTech adoption by mosques.

The second aspect of FinTech adoption pertains to the reporting functions. Two of the mosques have adopted apps provided by the state religious department specifically for reporting purposes. While transferring data to apps has been done manually, the respondent from ISE 1 emphasised that using these apps helps minimise human errors in the reporting process, hence ensuring greater accuracy. The app allows authorities to access and gather reports from various mosques in a centralised manner and making the management and decision process more efficient. This digital approach not only enhances the reliability of the data but also facilitates quicker and more transparent communication between the mosques and relevant authorities.

**Table 3.** Mosques' FinTech adoption in financial management practices

<i>Aspect</i>	<i>Financial management processes</i>	<i>FinTech tools</i>
Collection and payments	<ul style="list-style-type: none"> <li>• Collection of donations</li> <li>• Revenue from economic activities</li> <li>• Salary disbursement</li> <li>• Payments</li> </ul>	<ul style="list-style-type: none"> <li>• Online banking</li> <li>• QR code</li> <li>• Apps</li> </ul>
Reporting	<ul style="list-style-type: none"> <li>• Reports are being made directly to the state religious department</li> </ul>	<ul style="list-style-type: none"> <li>• Apps</li> </ul>
Financial record	<ul style="list-style-type: none"> <li>• Collections, incomes, and payments record</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting software</li> </ul>

Thirdly, the adoption of accounting software can greatly assist mosque treasury staff in accurately recording and managing financial data. By utilising such software, staff can efficiently track and document various financial activities, including collections, income, payments, and other expenses. The software ensures a more organised and precise approach to financial record-keeping, reducing the risk of errors that may occur with manual methods. Additionally, it allows for real-time updates, offering a clearer overview of the mosque's financial status and enabling better decision-making. The use of accounting software not only organises

the financial process but also enhances transparency and accountability in managing mosque funds. Furthermore, the use of such software ensures that important data is never lost (ISE 4), thereby maintaining consistent oversight and organization in managing mosque finances.

#### 4.3. Challenges in mosques' FinTech adoption

Although the respondents outlined several benefits that mosques have gained from adopting FinTech solutions, the majority also emphasised the challenges they face in the process. A key issue

mentioned by most respondents is the reluctance of some donors, particularly older individuals, to embrace online transactions. This hesitancy often stems from a lack of familiarity or comfort with digital platforms. This is based on the following statement:

“... Elders are less active in using online transactions. Most prefer to put money in the fund or go to the counter to donate...” (ISE 4, personal communication, July 21, 2024).

Additionally, the elderly are often resistant to adopting FinTech due to a lack of experience, and it is unrealistic to expect them to spontaneously acquire FinTech skills (Choi et al., 2024). As a result, these donors may limit their contributions, which can hinder the mosque's ability to fully leverage the potential of online financial management systems and affect overall fundraising efforts. However, FinTech adoption in the ISE does not necessarily eliminate existing traditional cash transactions. In this case, FinTech tools serve as a complementary method, and users still have the option to use both physical and online transaction methods concurrently (Widayat et al., 2020).

Moreover, there are issues related to dependency on network coverage for online transactions, unidentified types of donations if no remarks are provided, and the possibility of transfer errors. These issues are highlighted as follows:

“... We have received feedback about the difficulty of using QR codes due to weak network coverage in the area of the ISE premises...” (ISE 5, personal communication, July 3, 2024).

“... Online donations are often not marked for specific purposes. Therefore, we categorise them as regular donations. Unlike physical donation boxes, where donations can be specified based on the categorisation on the box...” (ISE 1, personal communication, date).

“... There have been cases where donors mistakenly transferred their funds to the ISE account. We will return the funds if there is a request, accompanied by proof of the transaction...” (ISE 4, personal communication, July 21, 2024).

This finding is consistent with previous studies indicating that FinTech requires reliable internet access and may become a disadvantage in areas with poor signal strength (Makina, 2019). It is undeniable that the use of FinTech applications can accelerate and facilitate financial transactions for all parties, including mosque institutions. However, FinTech usage must be supported by a strong digital infrastructure, particularly in mosque areas. In this regard, mosque management is encouraged to provide broadband access, such as free Wi-Fi, for the convenience of visitors and congregants conducting financial transactions using FinTech applications. If the mosque area faces broadband coverage issues, mosque management is advised to discuss the matter with relevant parties such as the state Islamic religious council, related ministries,

and existing telecommunications companies. Offering special and targeted subscription packages for mosque institutions is another approach that can be pursued in collaboration with the government to encourage FinTech adoption in mosques.

## 5. CONCLUSION

This study explores the adoption of FinTech in mosque institutions, recognising them as ISEs that also engage in various economic activities. The study argues that integrating FinTech solutions can significantly enhance the transparency and efficiency of financial management practices within these institutions. Through the analysis, it was found that the mosques involved in the study have adopted at least the basic FinTech tools, such as QR codes and online banking, to streamline their financial processes.

The study highlights several managerial and practical implications of FinTech usage, including the reduction of human errors, time savings, and the generation of accurate, real-time financial reports. These improvements in operational efficiency also contribute to more transparent financial management, providing both donors and mosque administrators with a clearer understanding of fund flows. Moreover, by minimizing time-consuming manual processes, FinTech enables mosque staff to focus on other essential tasks, ultimately supporting the smooth and effective operation of these institutions.

This study has a few limitations. As it focused solely on FinTech adoption practices in selected mosques in Malaysia, the findings could have been more comprehensive if the research had included other types of ISEs, such as zakat and waqf institutions, bodies, and faith-based organizations. Future research could also be extended to include other religious and general social enterprises. In addition, since this study found limited use of FinTech tools among the six selected ISEs, exploring the application of other potential technologies — such as blockchain and cryptocurrency — in mosque financial management may yield more extensive insights.

In conclusion, the findings underscore the significant potential of FinTech in enhancing the financial management of mosque institutions. Despite challenges such as donor reluctance, the overall impact of FinTech adoption is positive, fostering greater accountability, accuracy, and operational efficiency. As mosques continue to embrace digital tools, their ability to manage resources effectively is likely to improve, further strengthening their role within the broader ISE ecosystem. It is hoped that the findings from this study will contribute to alternative approaches for improving the financial management processes of mosques.

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