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Technology Integration in Islamic Finance: A Literature Review of Fintech's Role in Enhancing Financial Inclusion

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Abstract: This study aims to examine the role of financial technology (fintech) in enhancing financial inclusion within the Islamic finance sector through a Library Research approach using an Integrative Review design. The study synthesizes literature from academic databases such as Google Scholar, Scopus, DOAJ, and Scispace, with inclusion criteria covering articles published between 2015–2024, written in English or Indonesian, and relevant to topics such as Islamic finance, fintech, or financial inclusion. The selection process follows PRISMA principles to ensure transparency and rigor. Findings reveal that Sharia-compliant fintech plays a strategic role in expanding access to Islamic financial services, particularly for individuals in remote areas and vulnerable groups. Technological innovation, regulatory support, and multi-stakeholder collaboration are key drivers of inclusion. The study also identifies research gaps regarding the long-term impact and sustainability of Islamic fintech business models. This synthesis is expected to enrich academic understanding and provide practical insights for policymakers and Islamic finance industry players.

Keywords: Fintech, Islamic Finance, Financial Inclusion, Integrative Review, Digital Technology.

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A. INTRODUCTION

Sharia Financial Technology (Fintech) is an innovation in financial services that combines sharia principles with advances in digital technology. Sharia Fintech offers financial solutions that comply with Islamic values, such as free of usury and gharar, and transparency in transactions. By utilizing technology, Sharia Fintech can reach people who were previously unserved by conventional financial institutions, thus potentially increasing financial inclusion in Indonesia (Hidayat et al., 2024; World Bank, 2022).

Previous research shows that Sharia Fintech has an important role in increasing financial inclusion, especially among Micro, Small and Medium Enterprises (MSMEs). Hidayat et al. (2024) found that good financial literacy, combined with access to Sharia Fintech services, can expand MSMEs' access to formal financial services. Similarly, research by Gani (2023) emphasized that the use of digital technology in Sharia Fintech can overcome access barriers and provide better education to the community. Sugiarto (2021) also identified that Sharia Fintech provides convenience and efficiency in the use of financial service products for MSMEs in Surakarta.

Another study by Rahmawati (2023) shows that Islamic financial literacy, Fintech innovation, and Islamic financial inclusion significantly affect the use of e-wallets in the Surabaya community. This study highlights the importance of public understanding of financial digitization products and how it can increase Islamic financial inclusion. Fauzi (2023) also emphasized that the development of Fintech in Indonesia has had a significant impact on financial inclusion, although comprehensive regulations are still needed to protect consumers and encourage the growth of the Fintech sector.

In the global context, Baber (2020) conducted a comparative study between countries with Islamic and conventional financial systems, finding that countries with Islamic finance are more inclusive in terms of financial inclusion, although the number of Fintech users is higher in countries with conventional financial systems. This suggests that Islamic Fintech has great potential in improving financial inclusion, but still requires further efforts in terms of technology adoption and financial literacy. Gani (2023) also highlighted that legal regulations should be continuously updated to keep pace with innovations in the Islamic Fintech industry, taking into account Shariah principles and user needs.

Although various studies have shown the potential of Islamic Fintech in increasing financial inclusion, there is still a gap in Islamic financial literacy in the community. Data shows that the Islamic financial literacy index in Indonesia is still low, at around 39.11%, while Islamic financial inclusion only reaches 12.88% (Hidayat et al., 2024). This indicates the need for further efforts in education and the provision of easily accessible Islamic financial services. In addition, challenges such as lack of knowledge about Fintech, technological barriers, and low understanding of Islamic financial products are still a barrier to increasing Islamic financial inclusion (Prawana, 2023).

Based on the literature review above, there are gaps in the understanding and adoption of Sharia Fintech in the community, especially related to Islamic financial literacy and supporting regulations. The novelty of this study lies in the in-depth analysis of the role of Islamic Fintech in improving financial inclusion, focusing on the challenges and opportunities that exist in Indonesia. The objective of this study is to explore how Sharia Fintech can contribute to improving financial inclusion in Indonesia, as well as identify factors that influence the adoption and effectiveness of Sharia Fintech services.

B. METHOD

The research method used in this study is a Library Research approach with an Integrative Review design. This approach is used to identify, evaluate, and synthesize previous research results relevant to the topic of technology integration in Islamic finance and the role of fintech in improving financial inclusion. This study aims to provide a comprehensive understanding of how fintech has influenced financial inclusion in the context of Islamic finance, as well as identify research gaps and potential future scholarly contributions. This method is particularly suitable as it allows researchers to combine various empirical findings from published studies (Torraco, 2005).

Data sources in this study were obtained from various leading scientific databases such as Google Scholar, Scispace, Directory of Open Access Journals (DOAJ), and Scopus. The search was conducted systematically using keywords such as: “Islamic finance”, “financial technology”, “fintech and financial inclusion”, “Sharia compliance fintech”, and combined with Boolean operators such as AND and OR. Inclusion criteria included articles published between 2015 and 2024, written in Indonesian or English, available in full-text, and containing discussions on at least one of the three main topics: financial technology, Islamic finance, or financial inclusion. The exclusion criteria are articles that are duplicates, non-open access, or not topically relevant after the initial title and abstract screening.

The literature search process was conducted in stages, starting with the initial identification of articles that met the criteria, followed by a screening process of titles and abstracts, and finally a full reading of the selected articles. Each eligible article was then coded and thematically analyzed to find patterns, relationships and differences in the research findings. This literature selection procedure followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) principles that ensure transparency and replicability of the process (Page et al., 2021). Data analysis was conducted through narrative synthesis and thematic analysis, where the authors categorized findings based on key topics or issues relevant to the research title.

Validity and reliability in this study were maintained through a rigorous selection process and the use of references from internationally indexed reputable journals. To enhance content validity, source triangulation was conducted by comparing findings from various journals across regions and time. Meanwhile, reliability is enhanced by systematically and transparently compiling and following guidelines for selection and analysis procedures. The final synthesis results will be presented in a narrative form that reflects the contribution of fintech to Islamic finance and the level of financial inclusion, along with the identification of research gaps that have not been explored in previous literature.

C. RESULTS AND DISCUSSION

1. Sharia Finance Transformation through Fintech Innovation

The transformation of Islamic finance through fintech innovation has taken center stage in this digital era. With the accumulation of technological advancements, fintech offers a new avenue to increase access to sharia-compliant financial services. One of the journeys of this transformation is the development of platforms that not only meet the requirements of Islamic law but also increase financial inclusion among previously marginalized communities. Islamic fintech has opened the door for individuals and small businesses to obtain financing without being trapped in interest-based fees that are against sharia principles. Research shows that these innovations include peer-to-peer lending and crowdfunding-based financing models, which offer better access to users who do not have access to traditional banking services (Atikah et al., 2023; Putri & Hanif, 2024). Thus, fintech not only helps users overcome financial weaknesses, but also promotes aspects of social justice that are very important in Islamic economic concepts (Nurfadilah & Samidi, 2021; Effendi & Widajatun, 2024).

Furthermore, in the context of Indonesia, which has the largest Muslim population, Islamic fintech has great potential to promote inclusive economic growth. According to research conducted by Suhartono et al., information and communication technology can improve digital access to finance in remote areas, and fintech has been found to have a positive impact on financial inclusion in Indonesia (Suhartono et al., 2021; Haris et al., 2020). Other studies have shown that Islamic fintech can now help micro, small and medium-sized enterprises (MSMEs) access financing and improve their financial literacy (Trimulato et al., 2022; Maharani et al., 2024). This is in line with the Sustainable Development Goals (SDGs) approach, where Islamic fintech contributes to the reduction of poverty and injustice (Hudaefi, 2020).

However, the challenges faced by the Islamic fintech industry cannot be ignored. The limitations of sharia regulation, governance, and supervision are issues that require more attention in order to create a balanced and sustainable ecosystem (Muhammad & Lanaula, 2019; Muryanto, 2022; Muryanto et al., 2021). In addition, the importance of collaboration between financial institutions, fintech start-ups, and regulators is also identified as a critical step to accelerate the growth and effectiveness of Islamic fintech implementation (Ali et al., 2019; Supriadi et al., 2023). In conclusion, the transformation of Islamic finance through fintech offers significant potential for society as a whole. This innovation enables more individuals and MSMEs to access compliant financial services.

2. Fintech's Role in Increasing Sharia Financial Inclusion

Fintech (financial technology) plays a vital role in improving Islamic financial inclusion, especially in Indonesia, which has the largest Muslim population in the world. With the rapid development of digitization in financial services, Fintech offers a range of innovative solutions that bridge the financial access gap for people who were previously underserved or neglected by the traditional banking system. Norrahman emphasized that Fintech not only changes the way Islamic financial services are provided, but also contributes to operational efficiency and conformity with sharia principles (Norrahman, 2023). As explained by Muzdalifa et al., Fintech also has the potential to increase financial inclusion, especially for MSMEs (Micro, Small and Medium Enterprises), which are an important segment of the Indonesian economy (Muzdalifa et al., 2018).

However, the integration of Fintech in the Islamic finance sector is not without challenges. Mulyana et al. identified challenges such as Shariah compliance and cybersecurity, which require appropriate strategies and regulations to address (Mulyana et al., 2024). Research by Aziz et al. further noted that synergy between banking institutions and Fintech is key in addressing the changing market dynamics and increasing financial inclusion for the unbanked (Aziz et al., 2020). Most of the unbanked do not have access to formal financial services, so the presence of Islamic Fintech is expected to provide services that are easier, more affordable, and in accordance with sharia principles.

Furthermore, financial literacy is an important factor in promoting financial inclusion. According to Hiyanti et al., developing financial literacy among the public, especially in the context of understanding Islamic financial services, is crucial (Hiyanti et al., 2020). Increasing this literacy can help people understand Islamic Fintech products better, namely through the use of existing digital services. Research by Munawar et al. and Marginingsih shows that the current adoption of Fintech has brought positive impacts to MSME owners, including cost and time efficiency in transactions (Munawar et al., 2022; (Marginingsih, 2021);

In addition, the existence of Islamic Fintech also provides a solution in supporting economic growth following the impact of the Covid-19 pandemic. The application of this technology has been proven to aid economic recovery, particularly in improving access to financial services for segments that were severely affected during the crisis (Marginingsih, 2021; Rahman & Astria, 2025). In addition, Abadi et al. highlighted the effectiveness of Islamic Fintech in overcoming access challenges for MSMEs in certain regions (Abadi et al., 2020). Finally, to achieve optimal financial inclusion, there is a need for collaboration between the public and private sectors, as well as regulatory support from the government to create an ecosystem that supports the growth of Islamic Fintech. Research by Setyaningsih noted that a focused strategy is needed to ensure that sharia Fintech products meet the needs of the community, comply with sharia law, and are also easily accessible (Setyaningsih, 2018). Thus, the fintech sector is able to become a key driver in creating broader and more effective financial inclusion in Indonesia.

3. Challenges and Opportunities for Fintech Integration in the Islamic Financial Ecosystem

The integration of fintech in the Islamic finance ecosystem in Indonesia faces significant challenges and opportunities. On the one hand, fintech has great potential to improve financial inclusion, operational efficiency, and product innovation in accordance with sharia principles (Mulyana et al., 2024; Norrahman, 2023; (Hiyanti et al., 2020). However, challenges in the application of this technology cannot be ignored, especially in terms of compliance with sharia regulations, cybersecurity, and digital literacy among consumers (Mulyana et al., 2024; (Suryadarma & Faqih, 2024).

One of the key opportunities of Islamic fintech integration is its ability to increase the accessibility of financial services. By using technology, Islamic fintech can reach groups of people who were previously underserved by the traditional banking system, such as those in remote areas or who do not have access to physical banks (Hiyanti et al., 2020). Research shows that Islamic fintech can provide financial services to the public in a more efficient way, which in turn can reduce operational costs and promote economic growth (Hiyanti et al., 2020; Abadi et al., 2020).

However, a key challenge in this integration is to ensure that all fintech services comply with strict sharia principles. Shariah compliance issues are often an obstacle in the development of compliant financial technology products, and it is important for fintech service providers to collaborate with regulatory authorities to ensure that their products meet shariah standards (Mulyana et al., 2024; (Suryadarma & Faqih, 2024; Fatimah & Ludfi, 2024). In addition, improving digital literacy among users is also an essential step to ensure safe and effective use of fintech services (Mulyana et al., 2024; Susanti, 2024).

Regulation also plays an important role in shaping the development of Islamic fintech. A clear regulatory framework that supports innovation is necessary to protect consumers and encourage industry growth (Suryadarma & Faqih, 2024; (Alfiana et al., 2023). Research shows that while some existing regulations still need to be improved, existing initiatives have started to create a conducive environment for fintech development (Suryadarma & Faqih, 2024). Therefore, adaptive regulatory reforms and support for Islamic fintech innovation could be a strategic move to optimize the potential of this market (Suryadarma & Faqih, 2024; (Alfiana et al., 2023);

At a later stage, focusing on product innovation is also very helpful in increasing the competitiveness of Islamic fintech while upholding the principles of fairness and transparency that are the basis of Islamic finance (Hiyanti et al., 2020; Basya et al., 2020). Technology-based business models and innovations can strengthen the position of Islamic fintech in the face of increasingly fierce competition in the financial industry (Alfiana et al., 2023; Basya et al., 2020). In conclusion, the integration of fintech in the Islamic finance ecosystem offers promising opportunities to enhance financial inclusion and innovation. However, to achieve this potential, existing challenges, particularly in sharia compliance and regulation, need to be effectively addressed. With the right approach, Islamic fintech has the potential to be an important catalyst in the development of the Islamic finance sector in Indonesia.

D. CONCLUSIONS AND SUGGESTIONS

The integration of technology through sharia fintech platforms has made a significant contribution in expanding access to inclusive and sharia-compliant finance. Islamic fintech is able to bridge the limited access to financial services, especially for individuals and MSMEs in remote areas and vulnerable groups affected by crises such as the Covid-19 pandemic. Through the support of digital technology, collaboration between the public and private sectors, and conducive regulatory policies, Islamic fintech has the potential to become a key driver in the transformation of the national Islamic financial sector.

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