

ANALYSIS OF OPPORTUNITIES AND CHALLENGES IN THE DEVELOPMENT OF SHARIA FINTECH IN INDONESIA 2020 – 2025

Mardhiyah Gultom¹, Novien Rialdy²

Sharia Business Management Study Program, Faculty of Islamic Studies,
Muhammadiyah University of North Sumatra, Indonesia

Email: mardhiyahgultom7@gmail.com¹, novienrialdy@umsu.ac.id²

Abstrak

Keywords:
Sharia Fintech,
Opportunities,
Challenges.

The development of financial technology (*fintech*) has significantly transformed the global economy, including in Indonesia, the country with the largest Muslim population. This study aims to explore in detail the strategic opportunities and fundamental challenges facing the Islamic fintech sector in Indonesia between 2020 and 2025. The methodology used is descriptive qualitative research with a literature study approach, where data is drawn from various sources such as journals, reports from the Financial Services Authority (OJK), and the Indonesian Islamic Fintech Association (AFSI). The research findings indicate that opportunities for Islamic fintech are driven by the large Muslim population, high internet access, and government support through the Islamic Economic Master Plan. On the other hand, this sector also faces various challenges, including low knowledge of Islamic finance, a gap between IT talent and Islamic principles, and complexities in regulations and Islamic compliance. This study concludes that penta-helix collaboration is needed to accelerate the development of a sustainable Islamic fintech ecosystem.

This is an open access article under the [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/) license



INTRODUCTION

The Industrial Revolution 4.0 has brought about significant changes in the financial sector. The emergence of *financial technology*, or *fintech* for short, has provided a solution to the limited access to traditional financial institutions. The emergence of financial technology, or fintech, has become a disruptive solution to the limited accessibility of conventional financial institutions. In Indonesia, this phenomenon is particularly relevant because its geographical location as an archipelagic nation makes physical access to banks in remote areas difficult. As the world's most populous Muslim country, Indonesia holds enormous potential for sharia-compliant



economic growth, particularly through the digitalization of financial services (Faizatul Milla & Faisol, 2023).

fintech services, which provide technology-based financial products that adhere to Islamic principles (free from usury, gharar, and maysir), have emerged as an option for those without access to banks but seeking peace of mind when conducting transactions. According to data from the Global Islamic Economy Report, Indonesia consistently ranks among the top three in global Islamic economic indicators, (Agustina & Faizah,)after Malaysia and Saudi Arabia. However, the reality on the ground reveals a contradiction.

Despite its significant potential, the market share of Islamic finance (including *fintech*) still lags far behind that of conventional finance. Data from the Financial Services Authority (OJK) frequently indicates that the level of Islamic financial inclusion is not commensurate with its literacy (OJK, 2024). This leads many people to use digital financial products without understanding their underlying aspects.(Yunita dkk., 2022)

LITERATURE REVIEW

Sharia Fintech

Financial technology (fintech) is the development of financial services based on digital technology with the aim of increasing efficiency and expanding financial access. Within the Sharia framework, Sharia fintech is a digital financial service operated in accordance with Islamic principles, such as the prohibition of usury (riba), gharar (gharar), and maysir (stock-sharing), and implementing Sharia contracts such as murabahah, mudharabah, musyarakah, and wakalah. According to the Indonesian Sharia Fintech Association (AFSI), Sharia fintech serves as a fair and inclusive financing option, especially for micro, small, and medium enterprises (MSMEs) and communities without access to banking.

Sharia Fintech Regulation

Regulation for Sharia-compliant fintech in Indonesia is under the supervision of the Financial Services Authority (OJK). POJK No. 10/POJK.05/2022 concerning Information Technology-Based Joint Funding Services serves as the primary legal basis for fintech operations, including Sharia-compliant ones. Furthermore, Sharia compliance refers to the DSN-MUI Fatwa No. 117/DSN-MUI/II/2018, which regulates technology-based financing mechanisms in accordance with Sharia principles. This regulation aims to maintain a balance between innovation, consumer protection, and financial system stability.

Previous Research

Previous research has shown that the Sharia-compliant fintech industry has experienced significant growth since the COVID-19 pandemic, in line with increasing public demand for easily accessible digital financial services that align with Sharia principles. (Karni dkk., 2025)found that public views of Sharia-compliant fintech are generally positive, primarily due to Sharia compliance, good accessibility, and its role as an alternative source of capital when conventional banking services are limited during the pandemic. However, the study also highlighted challenges such as a lack of innovation in services and a user experience that is still inferior to that of conventional fintech.

Furthermore, (Alim dkk., 2022)he emphasized that Sharia fintech has significant

potential to help finance Micro, Small, and Medium Enterprises (MSMEs), especially entrepreneurs who are not yet reached by formal financial institutions (the unbanked and underbanked). However, low levels of understanding of Sharia finance are a major obstacle to maximizing Sharia fintech's utilization, necessitating an active role from supervisors and industry players in increasing education and outreach to the public.

On the other hand, (Kurniawan dkk., 2023)he emphasized the importance of regulation in strengthening public trust in the Sharia-compliant fintech sector. Enhanced regulation by the Financial Services Authority (OJK) through the issuance of POJK No. 10/POJK.05/2022 is expected to improve governance, increase transparency, and provide consumer protection. These stricter regulations encourage industry consolidation while also enhancing the credibility and sustainability of Sharia-compliant fintech in Indonesia.

RESEARCH METHODS

This study uses a qualitative approach with a library research method. This method was chosen to explore the phenomenon of Islamic fintech in depth through secondary data analysis without direct intervention in the field. Data Sources: The data used in this study comes from secondary data collected from previous research journals, AFSI, and OJK. The data analysis techniques used are content analysis *and* descriptive synthesis. Data is reduced based on topic relevance, presented in a logical narrative, and conclusions are drawn to answer the problem formulation regarding the industry's opportunity and challenge maps.

RESULTS AND DISCUSSION

Definition of Sharia Fintech and its Development in Indonesia

Fintech, or Information Technology in Indonesian, is the use of technology in the financial system that produces new products, services, technologies, and/or business models and can impact monetary stability, financial system stability, and/or the efficiency, smoothness, security, and reliability of payment systems (Salsabila dkk., 2023). Based on this explanation, it can be seen that fintech not only shows innovation in technology, but also functions as a strategic tool in changing the modern financial system. The use of technology in the financial sector creates a system that is more efficient, transparent, and easily accessible to the general public. However, the progress of fintech also requires good management and supervision, considering its influence that can impact the stability of the country's monetary and financial system (Afdi, 2021). Therefore, the existence of fintech must be balanced with flexible regulations and infrastructure and workforce readiness so that profits can be maximized without posing risks to the economy.

Sharia fintech is financial technology based on Sharia principles. Indonesia, as a predominantly Muslim country, has a large market for this type of fintech. Based on these two concepts, it is understandable that conventional financial technology and Sharia financial technology play a significant role in driving financial system reform. The difference lies in the operational basis and the values applied (Shalwa, 2022). Sharia financial technology has emerged as a solution that can meet the needs of the Muslim community for digital financial services that are not only effective but also in line with Sharia principles. Therefore, the development of Sharia financial technology in Indonesia is crucial to increasing participation in Sharia finance and supporting

national economic stability and growth. This still requires support from regulations, financial education, and adequate supervision.

The development of fintech in Indonesia, including Sharia-compliant fintech, began after COVID-19, during the pandemic phase (2020-2021), when new lenders and borrowers increased. Data from the Financial Services Authority (OJK) shows a significant increase in total lending by fintech companies. Sharia-compliant fintech companies are gaining momentum due to the financing needs of MSMEs, which banks could not access during the crisis. The maturity phase (2024-2025) marks a period of stability for the sector. The Indonesian Financial Services Authority (AFSI) reports growth in the Innovative Credit Scoring (ICS) and Sharia-compliant Aggregator categories. By 2025, collaboration between Sharia-compliant fintech companies and Sharia-compliant banks (through channels) is expected to strengthen. Sharia-compliant fintech companies in Indonesia offer a variety of services, including Sharia-compliant peer-to-peer lending, Sharia-compliant crowdfunding, halal digital payments, and technology-based investments, all based on fatwas issued by the National Sharia Council-Indonesian Ulema Council (DSN-MUI). The presence of Islamic fintech is an addition to the Islamic banking sector in increasing access to financial services, especially for people who have not received services from official financial institutions.

Sharia Fintech Opportunities in Indonesia

Demographic Bonus and Halal Lifestyle: With a Muslim population reaching 87% and the dominance of Generation Z and Millennials, demand for products that align with a halal lifestyle *is* increasing. For this generation, technological convenience alone is not enough; it must also align with religious beliefs. Research shows that the religiosity of the younger generation positively influences interest in using Sharia fintech services (Agista Hermalia Puteri dkk., 2025). This indicates that the new generation wants to stay up-to-date and keep up with modern developments, while maintaining religious teachings. Thus, Sharia *fintech* has a significant opportunity to grow if it can provide simple, *user-friendly services* that remain based on the Sharia principles believed in by the community.

Regulatory Support (OJK): The issuance of POJK No. 10/POJK.05/2022 provides a clear legal framework for Information Technology-Based Joint Funding Services (LPBBTI), including sharia business units. This regulation enhances the industry's legitimacy in the public eye. Sharia fintech in Indonesia extends beyond digital financing or investment services; one of the most popular is Sharia-based *peer-to-peer (P2P) lending*. According to AFSI data as of December 2024, There are 17 licensed Sharia Fintechs operational, consisting of from peer-to-peer lending, innovation digital finance, and *securities crowdfunding*. In the OJK directory, Sharia Fintech Lending is classified in a way special as LPBBTI Syariah (Services Financing Based Technology Sharia Information). OJK also continues strengthen collaboration between regulators and actors industry and associations For push inclusion finance, security system, as well as improvement fintech regulations in Indonesia(OJK AFTECH, AFSI 2024)

Sharia fintech plays a significant role in expanding financial access in Indonesia. By leveraging digital technology, Sharia fintech can serve communities living in remote areas and the unbanked or partially bankable (Kusuma dkk., 2023). Ease of registration, uncomplicated requirements, and app-based services are advantages of Sharia fintech compared to conventional financial institutions. During the 2020-2025 period, increased

smartphone usage and internet access will be key factors supporting the development of Sharia fintech services. This makes Sharia fintech a strategic tool for expanding financial access and strengthening community economies.

Operational efficiency is a significant advantage. Fintech enables automated processes and the use of digital technology that accelerates data processing. This reduces operational costs and the time required to provide financial services, which in turn can improve performance and profitability for Islamic financial institutions (Saran Sitasi: Rozi dkk., 2024). The use of technology can also strengthen Sharia compliance by providing a more organized and recorded oversight system, thereby increasing public trust in Islamic fintech. The increased transparency brought by fintech through the use of blockchain technology further strengthens trust in Sharia-compliant financial transactions. Through a decentralized recording system and network validation, data becomes more accessible and known to all parties, reducing the possibility of fraud and information alteration. (Atika dkk., 2025)

The micro, small, and medium enterprise (MSME) sector is a key foundation of the Indonesian economy. Sharia-compliant fintech has significant potential to support MSME development by providing financing in accordance with Sharia principles. Profit-sharing financing models offer fairer funding options for MSMEs compared to interest-based financing (Saripudin dkk., 2021). Between 2020 and 2025, Sharia-compliant fintech will play an increasingly important role in helping MSMEs survive and grow. By providing digital financing services, Sharia-compliant fintech can provide faster and more flexible access to capital, driving Sharia-compliant economic growth and improving public welfare.

Challenges of Sharia Fintech in Indonesia

One of the main obstacles to the growth of Islamic fintech in Indonesia between 2020 and 2025 is the lack of human resources (HR) with dual expertise: mastery of financial technology and in-depth knowledge of sharia principles. Islamic fintech is multidisciplinary, requiring a workforce that not only understands information technology and digital systems but also possesses an understanding of Islamic jurisprudence (fiqh muamalah), sharia contracts, and Islamic financial regulations. In practice, most existing HR tends to possess expertise in only one area, either technology or sharia. This situation makes it difficult for Islamic fintech businesses to create innovative products that comply with sharia principles (Billah & Zainul Hasan Genggong, 2021). This limited human resource also impacts business decision-making, risk management, and effective sharia compliance monitoring. During the period from 2020 to 2025, the rapid growth of the Islamic fintech industry will not be supported by a sufficient number of professional personnel. This risks hampering the pace of innovation, slowing the development of new products, and reducing the quality of services offered to the public. Therefore, human resource development through education, training, and collaboration between universities, industry, and Islamic financial institutions is crucial to support the sustainability of Islamic fintech in Indonesia.

The low level of Islamic financial literacy poses a challenge to public awareness and education, which is arguably low. Therefore, it is crucial to implement programs aimed at increasing public and customer knowledge about fintech. This initiative will contribute to reducing confusion and anxiety that may arise around the use of technology in Islamic finance (Masykur Hadi dkk., 2024). Many Muslims in Indonesia

still lack a comprehensive understanding of the fundamental differences between Islamic fintech and conventional fintech. One common misconception is that margins in Islamic transactions are essentially similar to interest in conventional systems. In reality, the two have different legal bases, transaction methods, and ethical implications. Margins in Islamic fintech are determined based on clear, pre-agreed agreements and are not variable like interest, thus emphasizing the principles of fairness and legal certainty in accordance with Sharia.

Sharia fintech faces more complex regulatory challenges than conventional fintech (Serbulova, 2021). In addition to complying with general regulations established by the Financial Services Authority (OJK) and Bank Indonesia, Sharia fintech is also required to comply with Sharia principles, which are overseen by the Sharia Supervisory Board (DPS) based on a fatwa issued by the National Sharia Council–Indonesian Ulema Council (DSN-MUI). This regulatory complexity often presents a barrier, especially for Sharia fintech startups still in their early stages of development. The licensing, supervision, and Sharia compliance processes require significant time, cost, and resources. Furthermore, the lack of fully specific and integrated regulations on Sharia fintech can lead to legal uncertainty and differing interpretations of the application of Sharia principles among business actors. Between 2020 and 2025, the rapid development of technological innovation often does not keep pace with the pace of regulatory revisions. This creates regulatory gaps that can hinder innovation and pose legal risks for Sharia fintech players (Aziz, 2021). Therefore, it is very important to strengthen regulations to be more adaptive, clear, and specific in order to support the development of sharia fintech without neglecting the principles of prudence and sharia compliance.

On the other hand, problems arise from gaps in digital literacy. Market segments with significant potential, particularly micro and small businesses, are still largely unfamiliar with the use of digital technology in their financial activities. Limited understanding of applications, data security, and digital transaction processes often makes them hesitant or even unwilling to utilize Sharia-compliant fintech services. This situation has resulted in suboptimal acceptance of Sharia-compliant fintech, even though these products align with the needs and preferences of the Muslim community. (Puteri, Syarifah, & Arlina, 2025) Therefore, increasing understanding of Sharia finance, coupled with digital education, is a crucial factor in encouraging wider participation and adoption of Sharia-compliant fintech in Indonesia.

Competition with established conventional digital financial institutions also poses a significant challenge for Islamic fintech in Indonesia. Conventional digital financial institutions typically have advantages in terms of capital, technological infrastructure, and a broader user reach. (Salsabila dkk., 2023) Furthermore, conventional digital financial institutions generally find it easier to design products because they are not bound by Sharia principles. In this context, Islamic fintech is required to compete creatively without sacrificing their distinctive Sharia values. The obligation to comply with Sharia principles, such as the prohibition of usury and the requirement to use specific contracts, often limits the scope for innovation compared to conventional digital financial institutions. However, Sharia compliance can also be a competitive advantage if effectively utilized in public communication. In the 2020-2025 period, Islamic fintech needs to formulate a solid differentiation strategy, for example by highlighting ethical, fair, and sustainable aspects of its financial services. Without a

suitable strategy, intense competition with conventional digital financial institutions could hinder the development of Islamic fintech and weaken its position in the digital financial market.

Infrastructure and Cybersecurity: Uneven internet infrastructure outside Java hinders inclusion. This situation makes public access to Sharia fintech services less than optimal. Furthermore, issues of customer data security and the risk of cyberattacks pose significant challenges that could undermine public trust in Sharia digital platforms (Agista Hermalia Puteri dkk., 2025). Risks related to data security and cybercrime are significant challenges to the advancement of Sharia fintech, as the use of digital technology increases. User data protection and information system security are crucial elements in building and maintaining public trust in Sharia fintech services. Between 2020 and 2025, the growth in digital transactions will also be accompanied by an increase in threats from cybercrime, including data theft, online fraud, and system hacking. If Sharia fintech cannot offer a robust security system, the potential for data leaks and financial losses for users will increase. Public trust is a key asset for Sharia fintech. Any security-related incident can erode public trust, not only in a single platform, but also in the entire Sharia fintech industry. Therefore, strengthening digital security systems, implementing comprehensive risk management, and adhering to data protection standards are crucial to supporting the sustainability of Islamic fintech in Indonesia. (Aziz, 2020)

CONCLUSION

Based on research findings, Islamic fintech in Indonesia shows excellent growth prospects, supported by a large Muslim population, increasing internet access, a demographic bonus, and support from government regulations and the Financial Services Authority. Islamic fintech functions as an effective, inclusive, and Sharia-compliant digital financial service, especially for individuals who lack access to formal financial services. Clear regulations and technological advances also strengthen the position and growth opportunities of the Islamic fintech industry in Indonesia. However, the development of Islamic fintech still faces several challenges, including low understanding of Islamic financial literacy and digital literacy, inadequate internet infrastructure in various regions, gaps in human resource quality, and cybersecurity threats that can undermine public trust. Therefore, penta-helix collaboration is needed between the government, regulators, industry players, academics, and the public to strengthen a sustainable Islamic fintech ecosystem through improved education, strengthened regulations, and the development of infrastructure and digital security.

BIBLIOGRAPHY

- Afdi, M. (2021). *Munich Personal RePEc Archive Financial Technology (Fintech): It's Concept and Implementation in Indonesia*.
- Agista Hermalia Puteri, Nabila Syarifah, & Azura Septin Arlina. (2025a). Opportunities & Challenges of Digitalization of Sharia Economy in Indonesia in the Digital Economy Era. *SANTRI: Journal of Islamic Economics and Finance*, 3 (3), 295–310. <https://doi.org/10.61132/santri.v3i3.1654>
- Agustina, R., & Faizah, F.N. (2021). Journal of Islamic Banking and Finance | 61. *JoIE : Journal of Islamic Economics and Business P*, 3. <https://doi.org/10.21154/joie.v2i2.3968>



- Alim, MN, Supriadi, Marasabessy, RH, & Solihin, R. (2022). Literacy on the Role of Fintech and Sharia Digital Business in Strengthening the People's Economy. *I-Com: Indonesian Community Journal*, 2 (2), 79–88. <https://doi.org/10.33379/icom.v2i2.1296>
- Atika, N., Alfia, S., & Rohmayanti, A. (2025). PT. Media Akademik Publisher: INNOVATION OF SYARIAH FINTECH PRODUCTS AS A STRATEGY TO INCREASE PUBLIC INTEREST IN SYARIAH FINANCIAL INSTITUTIONS. *JMA*, 3 (11), 3031–5220. <https://doi.org/10.62281>
- Aziz, FA (2020). Assessing the Sharia Compliance of Islamic Fintech in Indonesia. *Al-Manahij: Journal of Islamic Law Studies*, 14 (1), 1–18. <https://doi.org/10.24090/mnh.v14i1.3567>
- Billah, Tisoma, & Zainul Hasan Genggong, I. (2021). THE ROLE AND CONSTRAINTS OF SHARIA FINTECH IN MSMEs IN INDONESIA. In *Journal of Islamic Management and Finance* (Vol. 2, Number 2).
- Faizatul Milla, K., & Faisol, A. (2023). E-commerce and Sharia Fintech Business in Indonesia. *Attractive: Innovative Education Journal*, 5 (1). <https://www.attractivejournal.com/index.php/aj/>
- Karni, AS, Setyowati, fah, Sa, N., & Azharil Adzka, M. (2025). NAVIGATING FATWA-TO-REGULATION TRANSFORMATION IN ISLAMIC FINANCE: CHALLENGES AND INNOVATIONS POST-OMNIBUS LAW 2023 1*. *10* (2). <https://doi.org/10.14710/dilrev.10.2.2025.157-172>
- Kurniawan, A., Ningsih, NW, Pramasha, RR, & Audia, N. (2023). Determining Factors of Interest in Using Sharia Financial Technology Post-Covid-19. *BUSINESS: Journal Islamic Business and Management*, 11 (1), 1. <https://doi.org/10.21043/bisnis.v11i1.19840>
- Kusuma, H., Wiwiek, D., & Asmoro, K. (2023). DEVELOPMENT OF FINANCIAL TECHNOLOGY (FINTECH) BASED ON ISLAMIC ECONOMIC PERSPECTIVES.
- Masykur Hadi, M., Firdausil Ulum, M., Surya, A., Aprillia, AS, & Vivi, AF (2024). *The Fintech Era: Opportunities and Challenges of Sharia (Financial Technology) in Indonesia*. 5 (6), 3409.
- Salsabila, F., Hasibuan, PM, Harahap, SM, & Silalahi, PR (2023). Analysis of the Use of Sharia Financial Technology (Fintech) from an Islamic Economic Perspective. In *the Journal of Economics, Management, and Business Research (JEKOMBIS)* (Vol. 2, Number 1).
- Citation Suggestion: Rozi, F., Safitri, AR, Khowatim, SW, & Rochayatun, K. (2024). The Role of Sharia Financial Technology (Fintech) in the Indonesian Economy. *Scientific Journal of Islamic Economics*, 10 (02), 1668–1674. <https://doi.org/10.29040/jiei.v10i2.13668>
- Saripudin, S., Nadya, PS, & Iqbal, M. (2021). Sharia Fintech Efforts to Accelerate MSME Growth in Indonesia. *Scientific Journal of Islamic Economics*, 7 (1), 41. <https://doi.org/10.29040/jiei.v7i1.1449>
- Serbulova, N. (2021). Fintech as a transformation driver of global financial markets. *E3S Web of Conferences*, 273. <https://doi.org/10.1051/e3sconf/202127308097>
- Shalwa, N. (2022). IMPLEMENTATION OF SHARIA PRINCIPLES IN SHARIA FINTECH AS A SHARIA ECONOMIC REVOLUTION IN INDONESIA. *Journal of Religious Studies and Da'wah*, 15 (1). <https://doi.org/10.3783/tashdiqv2i9.2461>

Yunita, P., Ali, A., Fahminuddin, M., & Hidayatullah, S. (2022). *SHARIA FINANCIAL TECHNOLOGY & DIGITAL BANKING: OBSTACLES AND CHALLENGES IN SHARIA FINTECH DEVELOPMENT IN INDONESIA* (Vol. 4, Number 2).

