



# Bridging Faith and Innovation: A Systematic Literature Review of Islamic FinTech Adoption Patterns and Regulatory Frameworks (2020-2024)

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## Abstract

This systematic literature review critically examines the adoption and regulatory frameworks of Islamic Financial Technology (Islamic FinTech) across various jurisdictions between 2020 and 2024. Through an extensive analysis of 28 scholarly articles, the study identifies the key factors influencing adoption, regulatory challenges, and potential growth opportunities in the Islamic FinTech sector. The findings reveal that trust, religious orientation, and technological readiness significantly influence Islamic FinTech adoption. Additionally, the study identifies critical challenges, including Shariah compliance mechanisms, regulatory frameworks, and consumer protection. The novelty of this study lies in its systematic and holistic approach, integrating the analysis of adoption factors, regulatory challenges, and technological innovations within the context of Islamic FinTech. The research emphasizes the importance of developing a comprehensive regulatory framework that balances technological innovation with Shariah compliance, while ensuring consumer protection. This study contributes to the advancement of knowledge on Islamic FinTech by providing practical insights for policymakers, practitioners, and researchers in developing a sustainable Islamic FinTech ecosystem. Furthermore, the study offers concrete recommendations, such as the harmonization of international Shariah standards and the utilization of blockchain technology to enhance transparency, which can be applied in a global context.

## Kata Kunci:

*Teknologi  
Keuangan  
Syariah;  
Kepatuhan  
Syariah; Adopsi  
Teknologi;  
Kerangka  
Regulasi; Inklusi  
Keuangan*

## Abstrak

Tinjauan literatur sistematis ini secara kritis mengkaji adopsi dan kerangka regulasi Teknologi Keuangan Islam (*Islamic FinTech*) di berbagai yurisdiksi antara tahun 2020 dan 2024. Melalui analisis mendalam terhadap 28 artikel ilmiah, studi ini mengidentifikasi faktor-faktor utama yang mempengaruhi adopsi, tantangan regulasi, serta peluang pertumbuhan potensial dalam sektor FinTech Islam. Temuan menunjukkan bahwa kepercayaan, orientasi keagamaan, dan kesiapan teknologi memiliki pengaruh signifikan terhadap adopsi FinTech Islam. Selain itu, studi ini mengidentifikasi tantangan utama, termasuk mekanisme kepatuhan syariah, kerangka regulasi, dan perlindungan konsumen. Kebaruan penelitian ini terletak pada pendekatan sistematis dan holistik yang mengintegrasikan analisis faktor adopsi, tantangan regulasi, dan inovasi teknologi dalam konteks FinTech Islam. Penelitian ini menekankan pentingnya pengembangan kerangka regulasi yang komprehensif, yang menyeimbangkan inovasi teknologi dengan kepatuhan terhadap prinsip syariah serta memastikan perlindungan konsumen. Studi ini berkontribusi pada pengembangan pengetahuan mengenai FinTech Islam dengan memberikan wawasan praktis bagi pembuat kebijakan, praktisi, dan peneliti dalam membangun ekosistem FinTech Islam yang berkelanjutan. Lebih lanjut, studi ini menawarkan rekomendasi konkret, seperti harmonisasi standar syariah internasional dan pemanfaatan teknologi blockchain untuk meningkatkan transparansi, yang dapat diterapkan dalam konteks global.

## INTRODUCTION

The development of digital technology has fundamentally changed the global financial landscape, positioning Financial Technology (FinTech) as a revolutionary force in financial services. In this context, Islamic FinTech has emerged as a significant development in Indonesia, a country with the largest Muslim population in the world. Despite its demographic advantage, the size of Indonesia's Islamic FinTech market is still relatively low with a transaction value of US\$2.9 billion, placing it below Saudi Arabia (US\$17.9 billion), Iran (US\$9.2 billion), UAE (US\$3.7 billion), and Malaysia (US\$3.0 billion) as reported in the study.<sup>1</sup>

The development of Islamic FinTech in Indonesia represents an important convergence of technological innovation and Sharia-compliant financial services. Recent research underscores that the core elements of the Islamic FinTech ecosystem in Indonesia include financial customers, fintech startups, government engagement, technology developers, traditional financial institutions, and fatwas. This comprehensive ecosystem has created new opportunities for financial inclusion and economic growth. However, it also presents unique challenges, particularly in regulatory frameworks and practical implementation.<sup>2</sup>

The positive impact of Islamic FinTech on the development of micro-enterprises in Indonesia has been proven through empirical research. Some research indicate that Islamic FinTech financing significantly enhances the performance of micro-businesses in Indonesia, leading to increased annual revenue and business expansion.<sup>3</sup> These findings align with research that emphasize the crucial role of government support in driving the adoption of Islamic FinTech, especially during periods of crisis such as the COVID-19 pandemic.<sup>4</sup>

In the context of sustainable development, Islamic FinTech in Indonesia has shown its role in supporting the Sustainable Development Goals (SDGs). Research documents how Islamic FinTech companies in Indonesia contribute to financial inclusion by financing less developed sectors such as agriculture and MSMEs, while facilitating the collection and distribution of Islamic social funds such as *infaq*, *waqf*, and *alms*.<sup>5</sup>

The challenge of *sharia* regulation and compliance remains a critical issue in developing Islamic FinTech in Indonesia. The researcher raised the urgency of establishing comprehensive *Sharia* compliance regulations to strengthen the supervision of Islamic FinTech operations.<sup>6</sup> The study proposes the establishment of a legal framework that

<sup>1</sup> Yudho Taruno Muryanto, "The Urgency of Sharia Compliance Regulations for Islamic Fintechs: A Comparative Study of Indonesia, Malaysia and the United Kingdom," *Journal of Financial Crime* 30, no. 5 (January 1, 2023): 1264–78, <https://doi.org/10.1108/JFC-05-2022-0099>.

<sup>2</sup> Fahmi Ali Hudaefi, M Kabir Hassan, and Muhamad Abduh, "Exploring the Development of Islamic Fintech Ecosystem in Indonesia: A Text Analytics," *Qualitative Research in Financial Markets* 15, no. 3 (January 1, 2023): 514–33, <https://doi.org/10.1108/QRFM-04-2022-0058>.

<sup>3</sup> H Kholidah et al., "Do Islamic Fintech Lending Promote Microenterprises Performance in Indonesia? Evidence of Difference-in-Difference Model," *International Journal of Islamic and Middle Eastern Finance and Management*, 2024, <https://doi.org/10.1108/IMEFM-08-2023-0310>.

<sup>4</sup> D Nurfadilah and S Samidi, "How The Covid-19 Crisis Is Affecting Customers' Intention To Use Islamic Fintech Services: Evidence From Indonesia," *Journal of Islamic Monetary Economics and Finance* 7 (2021): 83–114, <https://doi.org/10.21098/jimf.v7i0.1318>.

<sup>5</sup> F A Hudaefi, "How Does Islamic Fintech Promote the SDGs? Qualitative Evidence from Indonesia," *Qualitative Research in Financial Markets* 12, no. 4 (2020): 353–66, <https://doi.org/10.1108/QRFM-05-2019-0058>.

<sup>6</sup> Muryanto, "The Urgency of Sharia Compliance Regulations for Islamic Fintechs: A Comparative Study of Indonesia, Malaysia and the United Kingdom."

includes aspects of *sharia* compliance, integrated licensing procedures, division of authority and coordination between authorities, and mechanisms for consumer dispute resolution.

The integration of technology into Islamic finance also brings a new dimension in terms of trust and transparency. Research indicates that the perception of benefits and risks significantly influence user trust, which, in turn, affects the intention to adopt Islamic FinTech.<sup>7</sup> This finding is further supported by studies highlighting that *perceived benefits*, *subjective norms*, *self-efficacy*, and *customer innovation* play a crucial role in the acceptance of *Islamic FinTech* in Indonesia.<sup>8</sup>

While there is growing global interest in Islamic FinTech, there is a lack of comprehensive, systematic reviews that analyze adoption patterns, regulatory frameworks, and growth opportunities, particularly within the Indonesian context. This study addresses this gap by employing a systematic approach using the PRISMA protocol to examine recent literature (2020-2024). Its novelty lies in its focus on the intersection of technological innovation, Shariah compliance, and financial inclusion. Additionally, it provides valuable insights for policymakers, practitioners, and researchers.

This systematic literature review analyzes the current state of Islamic FinTech in Indonesia, focusing on adoption factors, regulatory challenges, and growth opportunities. It offers a multidimensional analysis integrating technology adoption, Shariah compliance, regulatory frameworks, and financial inclusion, tailored to Indonesia's unique context. By proposing actionable solutions—such as harmonizing *Shariah* standards and leveraging *blockchain* for enhanced transparency—the study bridges theory and practice, providing a comprehensive roadmap for sustainable Islamic FinTech development in Indonesia and beyond.

## RESEARCH METHODS

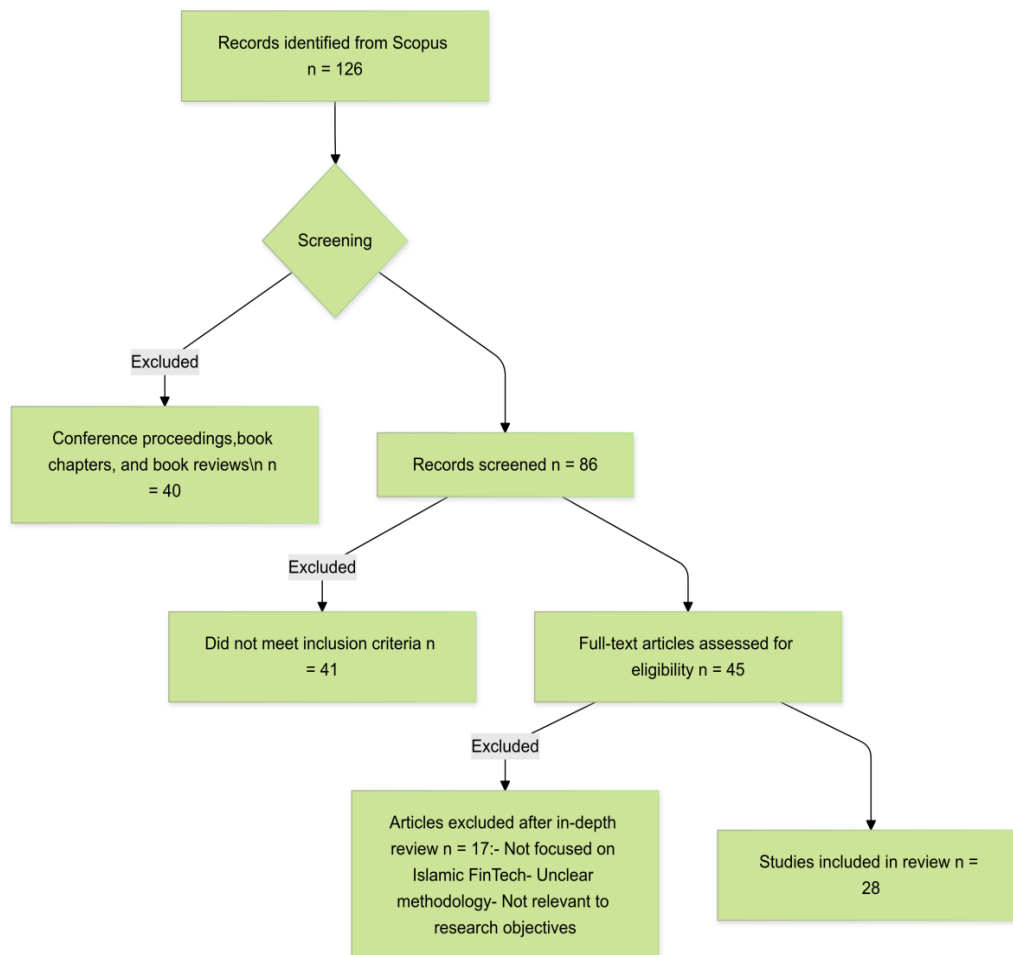
This study uses the Systematic Literature Review (SLR) approach with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol. This method was chosen because of its ability to provide a systematic, transparent, and replicable literature review. Data collection was carried out through the Scopus database which is one of the largest and reputable academic databases.

In the systematic search process on the Scopus database, the combination of keywords used is "Islamic FinTech" OR "Islamic Financial Technology" OR "Shariah FinTech". The initial search carried out in December 2024 without restrictions resulted in 126 documents. To ensure the quality and relevance of the analyzed articles, this study applied several selection criteria. Articles included in the analysis had to be peer-reviewed journal articles, published in English, focused primarily on Islamic FinTech, were published in the 2020-2024 time frame, had a clear research methodology, and was available in full-text format.

<sup>7</sup> M Ali et al., "How Perceived Risk, Benefit and Trust Determine User Fintech Adoption: A New Dimension for Islamic Finance," *Foresight* 23, no. 4 (2021): 403–20, <https://doi.org/10.1108/FS-09-2020-0095>.

<sup>8</sup> R Rahayu et al., "Determinant Factors of Islamic Financial Technology Acceptance Evidence from Indonesia," *Journal of Telecommunications and the Digital Economy* 12, no. 1 (2024): 405–26, <https://doi.org/10.18080/jtde.v12n1.790>.

The article selection process adhered to the PRISMA protocol, consisting of four main stages, as illustrated in Figure 1. In the initial identification stage, a search in the Scopus database yielded 126 documents without duplication, which were then screened to exclude 40 articles that were conference proceedings, book chapters, or review books, leaving 86 articles for title and abstract screening. During the feasibility assessment stage, 41 articles were excluded as they did not meet the inclusion criteria —such as being *non-English*, lacking a primary focus on *Islamic FinTech*, falling outside the 2020–2024 timeframe, having unclear methodologies, or being unavailable in full-text format. Following this, 45 articles underwent full-text assessment, and 17 were further excluded for reasons due to insufficient focus on Islamic FinTech, unclear methodologies, or irrelevance to the research objectives. Ultimately, 28 articles were selected as the final sample for in-depth analysis, meeting all inclusion criteria and providing valuable insights into Islamic FinTech adoption, regulation, innovation, and financial inclusion. This transparent and rigorous selection process ensures the study’s credibility and offers a clear framework for future research in the field.



**Figure 1. PRISMA**

Source: Data Processed by the author, (2024).

In the analysis process, the data extracted from each article included bibliographic information, research objectives, methodology used, key findings, contributions to the

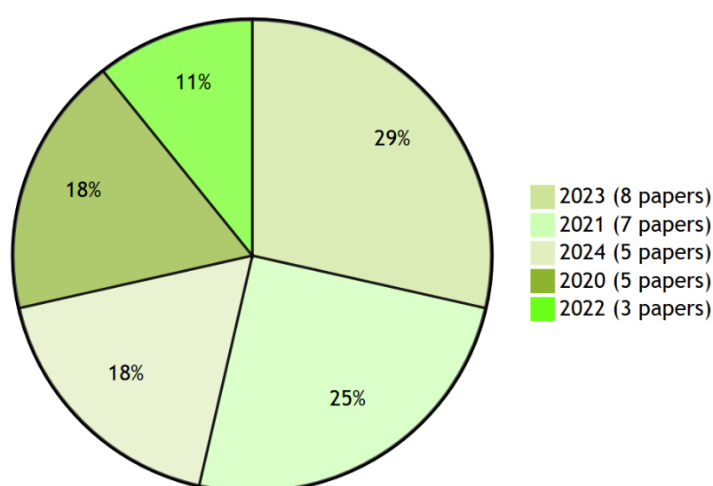
development of Islamic FinTech, as well as its practical and theoretical implications. Data analysis was carried out using a narrative synthesis approach, which involved organizing findings based on key themes, identifying patterns and trends in the literature, analyzing research gaps, and synthesizing findings to answer research questions.

The analytical framework employed in this study encompasses key aspects of the development of Islamic FinTech, including adoption factors, *Sharia* regulation and compliance, business models and innovations, development challenges and opportunities, and their impact on financial inclusion. The methodology applied enabled a comprehensive analysis of the development of Islamic FinTech based on the latest academic literature.

To ensure the quality of the analysis, each article was studied in depth concerning its contribution to the understanding of Islamic FinTech, the methodology used, and the implications of its findings for the development of this field. The process of data extraction and analysis was carried out systematically to identify the main themes, development trends, and gaps in the research that can be the basis for further research.

## RESULTS AND DISCUSSION

### Evolution and Research Trends of Islamic FinTech



**Figure 2. Distribution of Article by Publication year (2020-2024)**

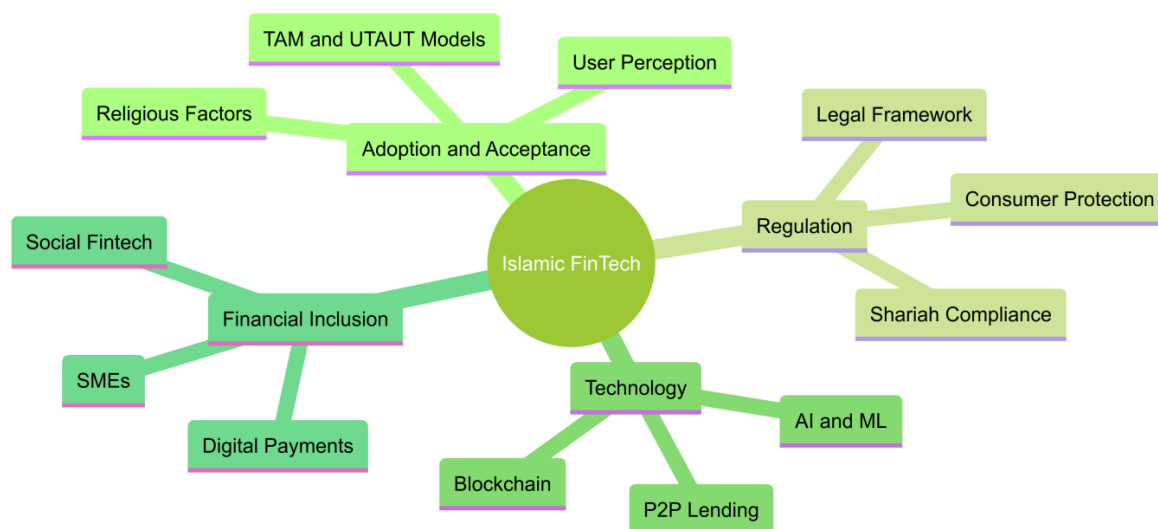
Source: Data Processed by the author, (2024).

The analysis of the temporal distribution of the 28 articles studied reveals a significant increase in Islamic FinTech research, with the highest concentrations in 2023 (8 articles) and 2024 (5 articles), a trend visually represented in Figure 2.<sup>9</sup> The evolution of research shows a shift from an initial focus on technology adoption toward a more complex exploration of the

<sup>9</sup> S Maniam, "Determinants of Islamic Fintech Adoption: A Systematic Literature Review," *Journal of Islamic Marketing* 15, no. 11 (2024): 2916–36, <https://doi.org/10.1108/JIMA-11-2023-0373>.

integration of *Sharia* principles in FinTech innovation. These findings reflect the increasing maturity of the research field.

Research trends, as illustrated in the Figure 3 also indicate a shift from descriptive studies to more sophisticated empirical analyses. Some researchers have employed a quantitative approach to test theoretical models, while others have adopted text analytics methods to examine the development of the Islamic FinTech ecosystem. The diversity of these methodologies reflects the complexity and maturity of the research field.<sup>10</sup>



**Figure 3. Key Themes in Islamic Fintech Research**

Source: Data Processed by the author, (2024).

### Developments in Various Countries

Geographical analysis reveals significant variations in the implementation of Islamic FinTech across different countries. Malaysia and Indonesia have emerged as major centers of development, each exhibiting unique characteristics in regulatory and adoption approaches. Research indicates that Malaysia focuses on developing a strong digital infrastructure, while Indonesia places greater emphasis on empowering *MSMEs* through *Sharia* FinTech.<sup>11</sup>

Comparative studies inform that countries with large Muslim populations face similar challenges in integrating technology with *sharia* principles, yet adopt different regulatory approaches. Research in Saudi Arabia highlights a high adoption rate of Islamic digital payment services, supported by advanced technological infrastructure.<sup>12</sup>

<sup>10</sup> A A Alsmadi, "Exploring the Moderating Role of Religious Orientation on Islamic Fintech Adoption," *International Journal of Islamic and Middle Eastern Finance and Management* 17, no. 2 (2024): 310–27, <https://doi.org/10.1108/IMEFM-09-2023-0315>; Rahayu et al., "Determinant Factors of Islamic Financial Technology Acceptance Evidence from Indonesia"; Hudaefi, Hassan, and Abduh, "Exploring the Development of Islamic Fintech Ecosystem in Indonesia: A Text Analytics."

<sup>11</sup> N Mohd et al., "The Roles of Islamic Financial Technology (FINTECH) in Fostering Financial Inclusion in Malaysia," *Management and Accounting Review* 23, no. 1 (2024): 329–55; Kholidah et al., "Do Islamic Fintech Lending Promote Microenterprises Performance in Indonesia? Evidence of Difference-in-Difference Model."

<sup>12</sup> Muryanto, "The Urgency of Sharia Compliance Regulations for Islamic Fintechs: A Comparative Study of Indonesia, Malaysia and the United Kingdom"; A Irimia-Diéguez et al., "Predicting the Intention to Use Paytech Services by Islamic Banking Users,"

One of the main challenges in the development of Islamic FinTech is the low level of Islamic financial literacy within the community. To overcome this, the government and industry players can introduce technology-based financial literacy programs, such as educational applications that simplify *Sharia* concepts in finance. Additionally —such as tax breaks for Islamic FinTech startups that contribute to the financial inclusion sector—could boost the growth of the industry. A successful example of this approach can be seen in Malaysia, where strong government policy support has accelerated the adoption of Islamic FinTech.

Indonesia and Malaysia adopt different approaches to Islamic FinTech development, largely influenced by cultural and regulatory contexts. Malaysia, with its more advanced infrastructure, established itself as a regional hub for Islamic FinTech through a high-tech-driven approach. In contrast, Indonesia, despite its vast market potential, faces challenges in regulations that have not been fully integrated. For example, Malaysia's integrated licensing system could serve as a model for Indonesia to enhance the efficiency of Islamic FinTech regulatory oversight.

### Regulatory and Compliance Aspects

Sharia regulation and compliance are central to the development of Islamic FinTech. The research identifies three key components in the regulatory framework: standardization of sharia compliance, oversight mechanisms, and consumer protection. The study found that countries with strong regulatory frameworks tend to have more developed Islamic FinTech ecosystems.<sup>13</sup>

The research adds an important dimension by analyzing how differences in sharia interpretation between countries affect the development of regulations. The findings highlight the importance of harmonizing international *Sharia* standards to support the growth of global Islamic FinTech.<sup>14</sup>

The harmonization of sharia standards is a crucial issue faced by the Islamic FinTech industry globally. Differences in the interpretation of sharia between countries, as seen between Indonesia and Malaysia, can create challenges in developing products that are acceptable in various jurisdictions. For example, the implementation of blockchain for zakat in Malaysia may be subject to different regulations than in Indonesia. Therefore, the role of international organizations such as AAOIFI and IFSB in creating joint regulatory guidelines is very important. By establishing inclusive global standards, Islamic FinTech can expand the reach of markets across borders.

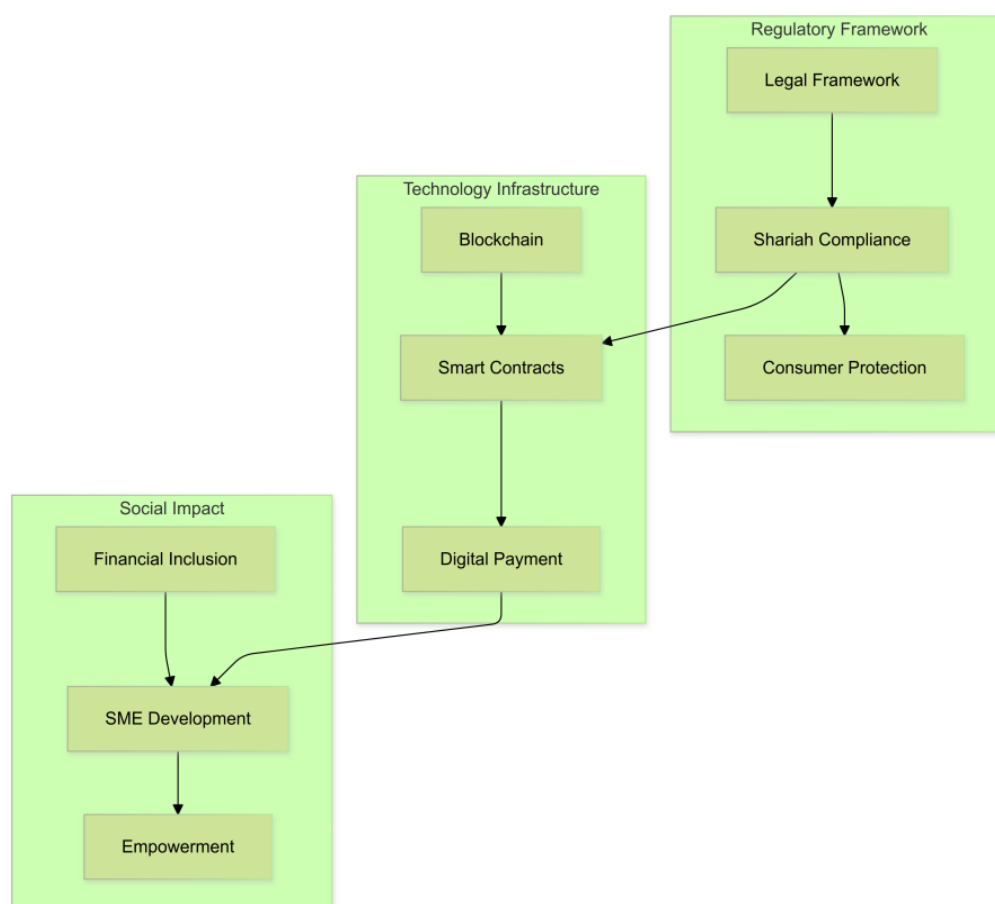
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*International Journal of Islamic and Middle Eastern Finance and Management* 17, no. 1 (2024): 1–15, <https://doi.org/10.1108/IMEFM-07-2022-0298>.

<sup>13</sup> Muryanto, “The Urgency of Sharia Compliance Regulations for Islamic Fintechs: A Comparative Study of Indonesia, Malaysia and the United Kingdom.”

<sup>14</sup> A Z Nagimova, “Islamic Finance in Kazakhstan: The View of Experts,” *Journal of Islamic Accounting and Business Research* 14, no. 8 (2023): 1195–1215, <https://doi.org/10.1108/JIABR-09-2021-0265>; S A Bin-Nashwan et al., “Adoption of ZakaTech in the Time of COVID-19: Cross-Country and Gender Differences,” *Journal of Islamic Marketing* 14, no. 11 (2023): 2949–79, <https://doi.org/10.1108/JIMA-08-2021-0278>.





**Figure 4. Key Components of Islamic FinTech Ecosystem**

Source: Data Processed by the author, (2024).

### Policy Directions for Advancing Islamic FinTech

The findings of this study highlight key implications for policymakers in fostering Islamic FinTech growth while ensuring *Shariah* compliance and consumer protection. Policymakers should prioritize the development of a comprehensive regulatory framework that balances innovation with *Sharia* principles. This includes standardized compliance mechanisms, integrated licensing systems, and robust consumer protection measures, potentially adopting Malaysia's successful model.<sup>15</sup> Harmonizing international *Shariah* standards through collaboration with organizations like AAOIFI and IFSB is essential to facilitate cross-border transactions and build trust.<sup>16</sup> Additionally, incentives such as tax breaks or grants should be introduced for Islamic FinTech startups focusing on underserved sectors like agriculture and MSMEs, following Malaysia's crowdfunding success.<sup>17</sup> Improving Islamic financial literacy through technology-based programs, such as mobile apps

<sup>15</sup> M I A Razak et al., "Fintech in Malaysia: An Appraisal to the Need of *Shariah*-Compliant Regulation," *Pertanika Journal of Social Sciences and Humanities* 28, no. 4 (2021): 3223–33, <https://doi.org/10.47836/PJSSH.28.4.40>.

<sup>16</sup> Muryanto, "The Urgency of *Sharia* Compliance Regulations for Islamic Fintechs: A Comparative Study of Indonesia, Malaysia and the United Kingdom."

<sup>17</sup> N H N Azman et al., "The Utilisation Of Islamic Fintech (I-Fintech) In Promoting Sustainable Inclusive Growth: Evidence From Micro-Entrepreneurs In Malaysia," *Journal of Islamic Monetary Economics and Finance* 6, no. 3 (2020): 555–76, <https://doi.org/10.21098/jimf.v6i3.1180>.



and workshops, is crucial, as demonstrated by Saudi Arabia's government-led campaigns.<sup>18</sup>

Additionally, investing in technological infrastructure, such as blockchain for transparent zakat distribution and AI for SME credit scoring, can enhance efficiency and trust.<sup>19</sup> By implementing these measures, policymakers can create an enabling environment for sustainable Islamic FinTech growth, advancing financial inclusion, economic development, and the Sustainable Development Goals (SDGs).<sup>20</sup>

### Technological Innovation and Business Model

The analysis of technological innovations highlights rapid developments in the integration of blockchain technology and artificial intelligence in Islamic FinTech. The study identified the significant potential of blockchain technology in the development of Islamic crypto assets, with findings showing lower volatility compared to conventional cryptocurrencies. Additionally, the study reveals that *Sharia* crypto assets can function as safe-haven instruments within the Islamic financial market.<sup>21</sup>

The study broadens understanding by proposing a machine learning-based P2P lending model for SMEs in Bahrain. The model integrates sharia principles with machine learning algorithms to enhance credit scoring accuracy and reduce default risk. Additionally, the study introduces an important dimension by employing *text analytics* to map the development of the Islamic FinTech ecosystem, identifying six key interconnected components within the ecosystem.<sup>22</sup>

### User Adoption and Acceptance

Research on user adoption shows the complexity of factors influencing the adoption of Islamic FinTech. Using the *UTAUT* model, researchers analyzed adoption trends among Malaysian millennials, while other studies found that *performance expectations* and *social influence* significantly impact usage intent. These findings are reinforced by those researching the adoption of sharia e-wallets, identifying the important role of sharia compliance in adoption decisions.<sup>23</sup>

Blockchain integration in Islamic FinTech holds great potential to increase transparency and efficiency, especially in the distribution of *zakat* and *waqf* funds. For example, blockchain can allow real-time audits of zakat distributions, ensuring that the funds are

<sup>18</sup> Irimia-Diéguez et al., "Predicting the Intention to Use Paytech Services by Islamic Banking Users."

<sup>19</sup> Razak et al., "Fintech in Malaysia: An Appraisal to the Need of Shariah-Compliant Regulation"; M R Rabbani, S Khan, and E I Thalassinou, "FinTech, Blockchain and Islamic Finance: An Extensive Literature Review," *International Journal of Economics and Business Administration* 8, no. 2 (2020): 65–86, <https://doi.org/10.35808/ijeaba/444>.

<sup>20</sup> Hudaefi, Hassan, and Abduh, "Exploring the Development of Islamic Fintech Ecosystem in Indonesia: A Text Analytics."

<sup>21</sup> A Zaman et al., "Assessing the Potential of Blockchain Technology for Islamic Crypto Assets," *Competitiveness Review*, 2023, <https://doi.org/10.1108/CR-05-2023-0100>.

<sup>22</sup> M R Rabbani, S Khan, and M Atif, "Machine Learning-Based P2P Lending Islamic Fintech Model for Small and Medium Enterprises in Bahrain," *International Journal of Business Innovation and Research* 30, no. 4 (2023): 565–79, <https://doi.org/10.1504/IJBIR.2023.130079>; Hudaefi, Hassan, and Abduh, "Exploring the Development of Islamic Fintech Ecosystem in Indonesia: A Text Analytics."

<sup>23</sup> N F Rahim et al., "Measurement and Structural Modelling on Factors of Islamic Fintech Adoption among Millennials in Malaysia," *Journal of Islamic Marketing* 14, no. 6 (2023): 1463–87, <https://doi.org/10.1108/JIMA-09-2020-0279>; M H Bakri, K.K.S.M. Almansoori, and N S M Azlan, "Determinants Intention Usage of Islamic E-Wallet Among Millennials," *Global Business and Finance Review* 28, no. 1 (2023): 11–32, <https://doi.org/10.17549/gbfr.2023.28.1.11>.

actually disbursed according to *sharia* purposes. Similarly, the application of AI for *sharia* credit assessment can help financial institutions in mitigating default risks through *machine learning*-based data analysis. Case studies such as blockchain applications on zakat platforms in Malaysia or AI in P2P lending services in Bahrain can add depth to the discussions.

Follow-up studies on the acceptance of the DDKoin blockchain provide new perspectives into the adoption of *sharia* cryptocurrencies. This research reveals that, in addition to technological and usability factors, *Sharia* compliance and religious legitimacy are the primary considerations in the adoption of *Sharia* cryptocurrencies. These findings underscore the importance of balancing technological innovation with *Sharia* principles.<sup>24</sup>

### The Impact of COVID-19 and Adaptation

The COVID-19 pandemic has accelerated digital transformation in the Islamic finance sector. By analyzing how the COVID-19 crisis affected the intention to use Islamic FinTech services, the researchers found that government support and perception of benefits were key factors in adoption during the pandemic. The study also revealed significant changes in consumer behavior in the use of Islamic digital financial services.<sup>25</sup>

The research makes a significant contribution by proposing an AI-based zakat and Qardh-Al-Hasan integration model to overcome the economic impact of the pandemic. This model shows how Islamic FinTech can be leveraged to enhance the economic resilience of Muslim communities during crises. Another study reinforces these findings by analyzing the urgency of *Sharia* regulation in the context of digital acceleration driven by the pandemic.<sup>26</sup>

### Financial Inclusion and Sustainable Development

Islamic FinTech holds significant potential in promoting financial inclusion and sustainable development. The researcher explored the contribution of Islamic FinTech to the achievement of the SDGs in Indonesia, highlighting its vital role in financing the agricultural sector and *MSMEs*, as well as facilitating the distribution of *Islamic social funds*. This research shows how technological innovation can bridge the gap in access to Islamic financial services.<sup>27</sup>

Other studies reinforce these findings by examining the impact of Islamic FinTech on inclusive growth, particularly among micro-entrepreneurs. This study found that the use of *sharia* crowdfunding, mobile money, and P2P lending contributed significantly to the income stability of micro-entrepreneurs. These findings affirm the strategic role of Islamic FinTech in encouraging inclusive and sustainable economic development.<sup>28</sup>

<sup>24</sup> M H Bakri et al., "Acceptance Of Ddkoin Blockchain Using Utaut Model: A Customer Perspective Approach," *Quality - Access to Success* 24, no. 192 (2023): 103–21, <https://doi.org/10.47750/QAS/24.192.13>.

<sup>25</sup> Nurfadilah and Samidi, "How The Covid-19 Crisis Is Affecting Customers' Intention To Use Islamic Fintech Services: Evidence From Indonesia."

<sup>26</sup> M H Syed et al., "An Artificial Intelligence and NLP Based Islamic FinTech Model Combining Zakat and Qardh-Al-Hasan for Countering the Adverse Impact of COVID 19 on SMEs and Individuals," *International Journal of Economics and Business Administration* 8, no. 2 (2020): 351–64, <https://doi.org/10.35808/IJEBA/466>; Razak et al., "Fintech in Malaysia: An Appraisal to the Need of Shariah-Compliant Regulation."

<sup>27</sup> Hudaefi, "How Does Islamic Fintech Promote the SDGs? Qualitative Evidence from Indonesia."

<sup>28</sup> Azman et al., "The Utilisation Of Islamic Fintech (I-Fintech) In Promoting Sustainable Inclusive Growth: Evidence From Micro-Entrepreneurs In Malaysia."

Islamic FinTech plays a strategic role in supporting the achievement of the SDGs, especially in the agriculture sector and MSMEs. For example, sharia-based crowdfunding platforms have allowed smallholders in remote areas to access financing at a lower cost than conventional loans. Data from the latest report shows that *Sharia*-based funding has increased the productivity of the agricultural sector by 15% in certain regions of Indonesia. By incorporating empirical data like this, the article can effectively demonstrate the tangible impact of Islamic FinTech on sustainable development.

### Theoretical and Practical Contributions

Theoretical developments in the field of Islamic FinTech show significant maturing. The study develops a theoretical model that integrates TAM with *sharia* principles, providing a comprehensive framework for understanding technology adoption within the context of *Islamic finance*. This model considers not only technological aspects but also the religious and social dimensions influencing the adoption of Islamic FinTech.<sup>29</sup>

Other studies complement the theoretical developments with a comprehensive review of the integration of Fintech, blockchain, and Islamic finance. This research identifies theoretical and practical gaps that need to be addressed and provides recommendations for future development. These findings provide a strong foundation for further research while underlining the importance of balancing technological innovation and *Sharia* compliance.<sup>30</sup>

An in-depth analysis of Islamic FinTech research findings highlights several key dimensions in the development of this field. In the context of technology adoption and acceptance, the study shows the dominance of the TAM and UTAUT models as theoretical frameworks that have proven effective in explaining the variation in Islamic FinTech adoption in various contexts. Through a systematic review, it is revealed that while these models successfully identify key factors influencing adoption, the uniqueness of Islamic FinTech lies in the significant role of religious orientation as a moderating factor. Research further reinforces these findings by demonstrating that religious orientation not only directly influences adoption decisions, but also moderates the relationship between risk perception, financial literacy, and Islamic FinTech usage intentions.<sup>31</sup>

As a moderating factor in the *TAM* and *UTAUT* models, religious orientation adds a unique dimension to the adoption of Islamic FinTech. In the Indonesian context, the level of user trust in technology is often influenced by the extent to which it complies with sharia principles. For example, the perception that a local fatwa authority has verified a financial technology service can reinforce the relationship between the perception of the benefits of the technology and the user's intention to adopt it. This research could be further deepened by exploring specific cases, such as the role of the *National Sharia Council (DSN)* in enhancing the acceptance of *Sharia*-based technology.

<sup>29</sup> I M Shaikh et al., "Acceptance of Islamic Financial Technology (FinTech) Banking Services by Malaysian Users: An Extension of Technology Acceptance Model," *Foresight* 22, no. 3 (2020): 367–83, <https://doi.org/10.1108/FS-12-2019-0105>.

<sup>30</sup> Rabbani, Khan, and Thalassinou, "FinTech, Blockchain and Islamic Finance: An Extensive Literature Review."

<sup>31</sup> Maniam, "Determinants of Islamic Fintech Adoption: A Systematic Literature Review"; Alsmadi, "Exploring the Moderating Role of Religious Orientation on Islamic Fintech Adoption."

**Table 1. Key Research Themes, Findings, and Implications in Islamic FinTech**

Research Theme	Key findings	Implication
<b>Adoption &amp; Acceptance</b>	TAM & UTAUT are dominant in a theoretical framework	The need to integrate sharia aspects in technology adoption models
	Religious beliefs & orientations as strong moderators	The importance of building user trust
	Perception of ease of use has a significant effect	
<b>Regulation &amp; Compliance</b>	The need for sharia compliance standardization	The urgency of harmonization of international regulations
	Variation of regulatory approaches between countries	The need for a comprehensive regulatory framework
	The importance of consumer protection	
<b>Policy Directions</b>	Develop comprehensive regulatory frameworks balancing innovation and Shariah	Foster trust and adoption through transparent and compliant FinTech solutions.
	Harmonize international Shariah standards.	Facilitate cross-border Islamic FinTech transactions.
	Promote financial literacy and awareness.	Increase adoption of Islamic FinTech services.
	Provide incentives for Islamic FinTech startups.	Encourage innovation and growth in underserved sectors
<b>Technology &amp; Innovation</b>	Potential blockchain for Islamic crypto assets	Opportunities for technological innovation in Islamic finance
	AI/ML for credit scoring Sharia P2P lending is growing	The importance of balancing innovation and sharia compliance
<b>Financial Inclusion</b>	Positive impact on MSMEs	Islamic FinTech as an enabler of financial inclusion
	Increasing access to Islamic financial services	
	Contribution to the SDGs	Potential for inclusive economic development

Source: Data Processed by the author, (2024).

A thorough analysis of Islamic FinTech research findings, as detailed in Table 1, highlights several key dimensions in the development of this field. In the context of technology adoption and acceptance, the study shows the dominance of the TAM and UTAUT models as theoretical frameworks that have proven effective in explaining the variation in Islamic FinTech adoption in various contexts. Through its systematic study, it is revealed that while these models successfully identify key factors influencing adoption, the uniqueness of Islamic FinTech lies in the significant role of religious orientation as a moderating factor.<sup>32</sup>

The study reinforces these findings by proving that religious orientation not only directly influences adoption decisions but also moderates the relationship between risk perception, financial literacy, and intention to use Islamic FinTech.<sup>33</sup> Regulatory and *Sharia* compliance aspects serve as the fundamental pillars of Islamic FinTech development. A comparative study of Indonesia, Malaysia, and the United Kingdom highlights the urgency of standardizing *Sharia* compliance. This study reveals that countries with strong regulatory frameworks and clear *sharia* compliance standards show the development of a more mature Islamic FinTech ecosystem. This finding is further supported by a case study in Kazakhstan, which illustrates that the absence of a comprehensive regulatory framework can hinder the growth of Islamic FinTech.<sup>34</sup>

Technological innovation introduces a new paradigm in the development of Islamic FinTech, especially through the integration of blockchain and artificial intelligence. One study shows the potential of blockchain in the development of Islamic crypto assets, which exhibit lower volatility compared to conventional cryptocurrencies. Another study adds an important dimension by proving the effectiveness of machine learning models in sharia-compliant credit scoring. Additionally, further research expands understanding by identifying six key components of the Islamic FinTech ecosystem that require technological integration.<sup>35</sup>

The contribution of Islamic FinTech to financial inclusion has proven significant, especially in empowering MSMEs and individuals who remain underserved by the conventional banking system. The study empirically proved the positive impact of Islamic FinTech financing on the performance of micro-enterprises in Indonesia, while other studies revealed the success of Islamic FinTech in Malaysia in prioritizing the empowerment of SMEs and marginalized communities. Another study broadens the perspective by demonstrating the contribution of Islamic FinTech to the achievement of the SDGs through financing underdeveloped sectors and facilitating the distribution of Islamic social funds.<sup>36</sup>

<sup>32</sup> Maniam, "Determinants of Islamic Fintech Adoption: A Systematic Literature Review."

<sup>33</sup> Alsmadi, "Exploring the Moderating Role of Religious Orientation on Islamic Fintech Adoption."

<sup>34</sup> Muryanto, "The Urgency of Sharia Compliance Regulations for Islamic Fintechs: A Comparative Study of Indonesia, Malaysia and the United Kingdom"; Nagimova, "Islamic Finance in Kazakhstan: The View of Experts."

<sup>35</sup> Zaman et al., "Assessing the Potential of Blockchain Technology for Islamic Crypto Assets"; Rabbani, Khan, and Atif, "Machine Learning-Based P2P Lending Islamic Fintech Model for Small and Medium Enterprises in Bahrain"; Hudaefi, Hassan, and Abduh, "Exploring the Development of Islamic Fintech Ecosystem in Indonesia: A Text Analytics."

<sup>36</sup> Kholidah et al., "Do Islamic Fintech Lending Promote Microenterprises Performance in Indonesia? Evidence of Difference-in-Difference Model"; Mohd et al., "The Roles of Islamic Financial Technology (FINTECH) in Fostering Financial Inclusion in Malaysia"; Hudaefi, "How Does Islamic Fintech Promote the SDGs? Qualitative Evidence from Indonesia."

The development of business models in Islamic FinTech also shows significant innovation. The study identified the effectiveness of sharia crowdfunding, mobile money, and P2P lending in supporting the income stability of micro-entrepreneurs. The study adds that blockchain technology can increase transparency and trust in Islamic financial transactions. Another study on the adoption of *ZakaTech* underscores the importance of harmonizing international standards to facilitate cross-border transactions and strengthen user trust.<sup>37</sup>

The overall findings of this study indicate that the development of Islamic FinTech is a multidimensional phenomenon that requires an integrated approach to technology, regulations, and business models. The successful implementation of Islamic FinTech depends on a balance between technological innovation and *sharia* compliance, supported by a comprehensive regulatory framework and oriented towards financial inclusion. These studies also underscore the importance of considering socio-religious aspects in the development of sharia digital financial services to ensure sustainable adoption and positive impact on society.

## CONCLUSION

A systematic review of the development of Islamic FinTech during the 2020-2024 period reveals four main interrelated dimensions: technology adoption and acceptance, *Shariah* regulation and compliance, technological innovation, and financial inclusion. Technology adoption models such as TAM (Technology Acceptance Model) and UTAUT (Unified Theory of Acceptance and Use of Technology) are the dominant frameworks for understanding the acceptance of Islamic FinTech, with religious orientation and trust emerging as significant moderating factors. These models underscore the importance of aligning technological advancements with the religious and cultural values of users, ensuring that Islamic FinTech solutions are not only innovative but also *Shariah*-compliant and trustworthy.

The regulatory and *Shariah* compliance aspects have proven to be a critical foundation in the development of Islamic FinTech. The urgency of harmonizing international *Shariah* standards and developing a comprehensive regulatory framework are top priorities. A robust regulatory framework must balance innovation with *Shariah* compliance, ensuring consumer protection while fostering trust in Islamic FinTech. This could involve creating integrated licensing systems to streamline regulatory processes, harmonizing *Shariah* standards across jurisdictions to facilitate cross-border transactions, and providing incentives for Islamic FinTech startups that contribute to financial inclusion and sustainable development. Such measures will not only enhance the credibility of Islamic FinTech but also encourage more startups to enter the market, driving innovation and growth.

The successful implementation of Islamic FinTech depends on balancing technological innovation with *Sharia* compliance, as seen in the development of various technological

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<sup>37</sup> Azman et al., "The Utilisation Of Islamic Fintech (I-Fintech) In Promoting Sustainable Inclusive Growth: Evidence From Micro-Entrepreneurs In Malaysia"; Felicia Hui Ling Chong, "Enhancing Trust through Digital Islamic Finance and Blockchain Technology," *Qualitative Research in Financial Markets* 13, no. 3 (January 1, 2021): 328–41, <https://doi.org/10.1108/QRFM-05-2020-0076>; Bin-Nashwan et al., "Adoption of ZakaTech in the Time of COVID-19: Cross-Country and Gender Differences."



solutions such as *blockchain* for *Sharia*-compliant crypto assets and *machine learning* for credit scoring. Blockchain technology, for instance, has the potential to enhance transparency and efficiency, particularly in the distribution of zakat and waqf funds, by enabling real-time audits and ensuring that funds are disbursed according to Shariah principles. Similarly, AI-driven credit scoring models can improve risk assessment for SMEs, reducing default rates and expanding access to Islamic financial services. These innovations not only strengthen the Islamic FinTech ecosystem but also build user trust by ensuring transparency and compliance with Shariah principles.

Islamic FinTech has demonstrated a positive impact on financial inclusion, particularly for MSMEs and underserved community groups that have been excluded from the conventional banking system. Innovative business models such as *Sharia*-compliant crowdfunding, mobile money, and P2P lending have proven effective in supporting the income stability of micro-entrepreneurs and encouraging inclusive economic growth. For example, *Sharia*-based crowdfunding platforms have enabled smallholders in remote areas to access financing at lower costs than conventional loans, contributing to increased productivity and economic resilience. These models highlight the potential of Islamic FinTech to bridge the gap in access to financial services, particularly in developing economies.

For the future development of Islamic FinTech, a holistic approach is essential—one that considers technological, regulatory, social, and religious aspects. Successful implementation will depend on the ability to integrate technological innovations with *Shariah* principles, supported by a comprehensive regulatory framework. Policymakers, practitioners, and researchers must work together to address the challenges and opportunities in the Islamic FinTech ecosystem. Policymakers should focus on developing regulations that foster innovation while ensuring Shariah compliance and consumer protection. Practitioners should prioritize building user trust by ensuring transparency and *Shariah* compliance in all financial products, investing in blockchain and AI technologies to enhance efficiency, and collaborating with governments and educational institutions to improve Islamic financial literacy through technology-based educational programs. Researchers should expand the scope of analysis with more in-depth empirical studies on the long-term impact of Islamic FinTech on financial inclusion and economic development.

#### **CONFLICT OF INTEREST**

The authors declare no conflict of interest.

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