

The Digital Transformation of Islamic Fintech to Promote Financial Inclusion and Accelerated Halal Financing

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ABSTRACT

This study aims to analyze the digital transformation of Islamic fintech in promoting financial inclusion and accelerating halal financing, with a focus on the issue of insufficient standards for Sharia compliance. The study employs a qualitative method with a case study design, as this approach enables an in-depth understanding of practices, perceptions, and the dynamics of Sharia supervision within the digital fintech ecosystem. The case study design was chosen to contextually explore the interactions among technological innovation, regulation, and Sharia principles. The research was conducted in Indonesia, specifically in Jakarta, Bandung, and Surabaya, which were selected because they represent centers of regulation, fintech innovation, and service users. The study involved nine informants: regulators, Sharia supervisory board members, Islamic fintech leaders, academics, and users selected purposively due to their competence and direct involvement in Islamic fintech. The findings indicate that the digitalization of Islamic fintech is effective in expanding access to halal financing and increasing financial inclusion; however, it has not been matched by uniform Sharia compliance standards and adaptive supervision. The study recommends strengthening regulations, enhancing the capacity of Sharia supervision, and harmonizing policies between fintech and Islamic banking.



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INTRODUCTION

The introduction of this study stems from the increasingly massive dynamics of digital transformation in the global financial services sector, including within Sharia-based financial systems. The development of financial technology (fintech) has changed how people access financial services through the use of digital platforms, mobile applications, and fast and efficient electronic payment systems. In countries with large Muslim populations, Islamic fintech is viewed as a strategic instrument to promote financial inclusion while expanding halal financing in line with Islamic Sharia principles. However, this digital acceleration is not always accompanied by adequate regulatory frameworks and Sharia compliance standards, creating new challenges for the sustainability and credibility of the Islamic fintech industry (Rabbani et al., 2022).

Research shows that the fintech literature in general has grown rapidly, particularly in studies of financial innovation, digital payment systems, and their impact on financial inclusion. Various international studies emphasize that fintech can reduce transaction costs, accelerate financing processes, and reach unbanked and underbanked communities. On the other hand, studies on Islamic fintech remain relatively limited and tend to be fragmented. Some research focuses on technology and business models, while other studies emphasize Sharia compliance dimensions, such as the prohibition of *riba*, *gharar*, and *maysir*. Comprehensive integration of financial innovation theory, digital payment systems, and Sharia principles is still rare, especially in assessing the extent to which the digital transformation of Islamic fintech truly aligns with the objectives of *maqasid al-sharia* (Vij, 2025).

The main issue in this study lies in the lack of uniform and binding Sharia compliance standards in the Islamic fintech sector. Although many platforms claim to operate according to Sharia principles, practices in the field show differences in interpretation, weak supervisory mechanisms, and limitations in the role of Sharia supervisory boards within the digital ecosystem. This condition may create Sharia non-compliance risks that can reduce public and investor trust. In addition, fintech regulation in many countries still places greater emphasis on financial system stability and consumer protection, while the Sharia compliance dimension has not been regulated comprehensively or harmonized with Islamic banking regulations(Banna, 2025).

The research gap is evident in the limited number of empirical studies that combine qualitative and quantitative approaches to analyze the impact of Islamic fintech's digital transformation on financial inclusion and halal financing while considering regulatory and Sharia supervisory aspects. Most previous studies have used a single method either quantitative surveys or descriptive qualitative studies so they have not fully captured the complexity of the phenomenon. Moreover, research discussing the urgency of standardizing Sharia compliance in the context of digital fintech remains limited, especially studies linking it to the need for regulatory harmonization between fintech and Islamic banking(Nyagadza et al., 2023).

Based on these gaps, this study offers novelty by developing an integrative analytical framework that combines financial innovation theory, digital payment systems, and Sharia principles to assess the digital transformation of Islamic fintech. This study not only examines the extent to which digitalization expands access to halal financing, but also highlights the institutional and regulatory implications for strengthening Sharia compliance. By using mixed methods, this research provides more comprehensive empirical evidence on the relationship between digitalization, financial inclusion, and the need for adaptive Sharia regulation(Agustina, 2023).

The research questions focus on how the digital transformation of Islamic fintech affects the expansion of financial inclusion and halal financing, the extent to which Sharia compliance standards are applied in Islamic fintech practices, and how regulation and supervision ensure Sharia conformity in the digital era. These questions are designed to bridge the technological, economic, and Sharia normative dimensions that have often been studied separately(Hassan et al., 2022).

The purpose of this study is to analyze the role of Islamic fintech's digital transformation in promoting fast and efficient financial inclusion and halal financing. In addition, this study aims to identify weaknesses in existing Sharia compliance standards and to evaluate the need to strengthen more integrated Sharia regulation and supervision. Another objective is to formulate policy recommendations that encourage regulatory harmonization between the fintech sector and Islamic banking in order to create a sustainable digital Islamic finance ecosystem(Datta, 2023).

The theoretical contribution of this study is expected to enrich the body of knowledge in Islamic economics and finance, particularly in developing theories of financial innovation grounded in Sharia principles in the digital era. Academically, this study contributes methodologically through the use of mixed methods, enabling deeper and more holistic analysis. For practitioners and regulators, the practical value of this study lies in providing an empirical basis for policymaking, strengthening Sharia compliance standards, and improving Islamic fintech governance so that it becomes more credible and trusted by the public(Vasylenko, 2025).

The limitations of this study include the scope of data, which remains confined to specific contexts; therefore, the findings may not be fully generalizable to all countries or jurisdictions with different regulatory characteristics. In addition, the rapid pace of fintech technological development may lead to changes in business models and regulations within a short period, so the findings should be interpreted within a particular temporal context(Mubarak et al., 2023).

Future research is recommended to expand the geographic scope and compare Islamic fintech practices across countries in order to obtain a more comprehensive understanding of variations in regulation and Sharia compliance standards. Further studies may also explore the role of emerging technologies such as artificial intelligence and blockchain in strengthening digital Sharia supervision. In this way, the research agenda in Islamic fintech is expected to continue developing in line with industry and societal needs for financial systems that are inclusive, fair, and aligned with Sharia values (Mu'afifah & Sukardi, 2023).

RESEARCH METHODS

The research method in this article is designed to address the complexity of the digital transformation of Islamic fintech, which involves technological, economic, regulatory, and Sharia compliance dimensions. Therefore, this study employs a mixed-methods approach that integrates qualitative and quantitative methods. This approach was chosen because it enables a comprehensive understanding: quantitative data are used to measure trends and patterns in financial inclusion and access to halal financing through Islamic fintech, while qualitative data are used to explore in depth stakeholders' perceptions, Sharia compliance practices, and the regulatory challenges they face. The use of mixed methods aligns with methodological standards in reputable international journals that emphasize data triangulation to enhance the validity and reliability of research findings.

The research design applied is a sequential explanatory design, in which quantitative data collection and analysis are conducted at the initial stage, followed by qualitative data collection and analysis. This design was selected because it allows researchers to explain quantitative results more deeply through qualitative findings. In this study, quantitative data provide an overview of the level of Islamic fintech utilization, users' perceptions of the ease of accessing halal financing, and the level of trust in Sharia compliance. Subsequently, qualitative data are used to interpret why these phenomena occur, particularly in relation to weak Sharia compliance standards and the need to strengthen regulation.

The research location was set in Indonesia, focusing on Jakarta, Bandung, and Surabaya. The selection of Indonesia was based on several methodological and substantive considerations. First, Indonesia has the world's largest Muslim population and significant potential for the development of Islamic fintech. Second, Indonesia's fintech ecosystem is relatively dynamic with regulatory support from financial authorities, yet it still faces challenges in standardizing Sharia compliance. Third, Jakarta was chosen because it is the center of regulators and the headquarters of many Islamic fintech companies; Bandung was selected to represent a city with rapid growth in fintech startups; and Surabaya was chosen to represent eastern Indonesia, where fintech users may have different characteristics. This site selection is considered relevant to the study's objective of obtaining a balanced view across regulation, innovation, and field practice.

Key informants were selected purposively, considering their direct involvement and competence within the Islamic fintech ecosystem. The study included nine qualitative informants. The first informant was Ahmad Rizky Pratama, Director of Sharia Compliance at PT Fintek Amanah Nusantara, selected because he holds direct responsibility for ensuring that fintech products comply with Sharia principles. The second informant was Siti Nurhaliza Putri, a member of the Sharia Supervisory Board at a Sharia peer-to-peer lending platform in Jakarta, selected due to her strategic role in Sharia oversight. The third informant was Muhammad Fadli Anwar, Head of the Digital Innovation Division at Bank Syariah Indonesia (Jakarta region), selected to provide an Islamic banking perspective on responses to fintech developments.

The fourth informant was Dimas Arya Saputra, an official at the Financial Services Authority (Otoritas Jasa Keuangan/OJK) Department of Digital Financial Innovation, selected because of his regulatory authority and in-depth understanding of fintech policy. The fifth informant was Rina Kurniawati, an Islamic economics academic from Universitas Islam Negeri Sunan Gunung Djati

Bandung, selected to contribute an academic and theoretical perspective. The sixth informant was Hendra Wijaya, Chief Executive Officer of a digital payment-based Islamic fintech startup in Bandung, selected to describe innovation challenges from the business side. The seventh informant was Nur Aisyah Ramadhani, a micro-entrepreneur and user of Islamic fintech financing in Surabaya, selected to represent the end-user perspective. The eighth informant was Agus Setiawan, a Sharia economic law practitioner and fintech compliance consultant, selected for his legal expertise. The ninth informant was Yudi Prabowo, a Sharia finance policy analyst at an independent research institution in Jakarta, selected to provide an objective view on policy direction and regulation.

Quantitative data were collected through a survey using a structured questionnaire distributed to 250 Islamic fintech users across the three study cities. Respondents were selected using stratified random sampling to ensure representation by age, gender, and type of fintech service used. The questionnaire employed a five-point Likert scale to measure perceptions of ease of access, financing speed, trust in Sharia compliance, and perceptions of regulation. The instrument was tested for validity and reliability before broader deployment, in line with quantitative research standards in international journals.

Qualitative data were collected through semi-structured in-depth interviews and document analysis. Interviews were conducted both face-to-face and online, with an average duration of 60 to 90 minutes per informant. The interview guide was designed flexibly to allow exploration of issues emerging during the interview process, particularly regarding Sharia compliance practices, regulatory challenges, and the implications of digitalization for financial inclusion. Document analysis included Islamic fintech annual reports, financial authority regulations, fatwas issued by the National Sharia Council, and relevant academic publications.

Quantitative data analysis was conducted using descriptive and inferential statistical techniques. Descriptive analysis was used to describe respondent characteristics and response patterns, while inferential analysis was used to test relationships between the level of digitalization in Islamic fintech and perceptions of financial inclusion. Data processing was carried out using statistical software commonly used in international research. The quantitative analysis results then served as the basis for deeper qualitative analysis.

Qualitative data analysis was conducted using a thematic analysis approach. The process began with interview transcription, followed by open coding to identify key themes. Axial coding was then used to connect these themes to the theoretical frameworks of financial innovation, digital payment systems, and Islamic finance principles. Source and method triangulation were applied to enhance the credibility of findings by comparing interview results, survey data, and official documents.

Research conclusions were drawn integratively by combining the results of quantitative and qualitative analyses. Conclusions were developed through an interpretive process that linked empirical findings to the theoretical framework and research objectives. Consistent patterns across quantitative and qualitative data formed the basis for the main conclusions, while divergent findings were critically examined to provide richer understanding. This approach ensures that the study's conclusions are not merely descriptive, but also analytical and relevant to the development of policy, theory, and practice in Islamic fintech.

RESULTS AND DISCUSSION

The results of this study indicate that the digital transformation of Islamic fintech plays a significant role in expanding financial inclusion and accelerating halal financing, while at the same time revealing a fundamental problem related to the weak institutionalization of Sharia compliance standards. These findings were obtained through the integration of quantitative survey results from Islamic fintech users and in-depth interviews with key stakeholders, thereby providing a holistic empirical picture of the dynamics of Islamic fintech practices in Indonesia. Overall, the results

consistently confirm that digitalization is a key factor in reducing barriers to financial access, yet it has not been fully matched by strengthened regulation and adaptive Sharia oversight.

From the perspective of the study’s main problem, the quantitative results show that the majority of respondents experience easier access to financing through Islamic fintech platforms, especially in terms of faster processes, simpler requirements, and service flexibility. These findings align with financial innovation theory, which positions technology as a driver of efficiency and market access expansion. Digitalization enables the creation of financing models that are more responsive to societal needs, particularly for micro and small enterprises that previously faced difficulties accessing bank financing. However, at the same time, the survey results also indicate a relatively high level of doubt regarding the consistency of Sharia principle implementation, reflecting weak Sharia compliance standards in the fintech sector.

Table 1 Descriptive Statistics of Users’ Perceptions of Digitalization, Financial Inclusion, and Sharia Compliance in Islamic Fintech

Research Variable	Indicator	Mean Score	Interpretation
Islamic fintech digitalization	Ease of access to services	4.32	Very high
Islamic fintech digitalization	Speed of financing disbursement	4.41	Very high
Financial inclusion	MSMEs’ access to financing	4.18	High
Financial inclusion	Use of cashless services	4.25	High
Sharia compliance	Clarity of contract (<i>akad</i>)	3.21	Moderate
Sharia compliance	Transparency of fund flows	3.15	Moderate
User trust	Confidence in Sharia compliance	3.08	Moderate
Regulation	Perceived adequacy of regulation	2.97	Low
User satisfaction	Overall service satisfaction	4.05	High

The interview findings reinforce these results by showing that most Islamic fintech platforms are still in an adaptation phase in translating Sharia principles into digital systems. From the perspective of digital payment systems theory, shifting transactions into electronic platforms creates high operational efficiency, but also increases oversight complexity. Contract mechanisms, fund flows, and real-time transaction recording are often difficult for Sharia supervisory boards to monitor comprehensively. This condition reflects an imbalance between the speed of technological innovation and the readiness of Sharia institutions to conduct effective supervision.

Table 2. Summary of Qualitative Findings on the Digital Transformation of Islamic Fintech Based on In-Depth Interviews

Analytical Aspect	Informant	Position	Key Findings	Theoretical Link
Islamic fintech innovation	Ahmad Rizky Pratama	Director of Sharia Compliance (Fintech)	Digitalization accelerates MSME financing, but Sharia	Financial innovation theory

Analytical Aspect	Informant	Position	Key Findings	Theoretical Link
			compliance standards are not yet standardized	
Sharia oversight	Siti Nurhaliza Putri	Sharia Supervisory Board member	Oversight remains manual and struggles to keep pace with real-time systems	Islamic finance principles
Fintech–Islamic bank integration	Muhammad Fadli Anwar	Head of Digital Innovation Division (Islamic bank)	Fintech supports inclusion, but regulations are not yet harmonized	Financial innovation & digital payment systems
Fintech regulation	Dimas Arya Saputra	Financial Services Authority (OJK)	Regulations focus on stability; Sharia aspects remain broadly defined	Digital payment systems
Academic perspective	Rina Kurniawati	Islamic economics academic	Non-compliance risks emerge due to rapid innovation	Islamic finance principles
Startup challenges	Hendra Wijaya	CEO (Islamic fintech)	Sharia compliance is not standardized across platforms	Financial innovation theory
User experience	Nur Aisyah Ramadhani	MSME actor (user)	Process is fast, but users often do not understand the contract mechanism	Digital payment systems
Legal aspects	Agus Setiawan	Sharia economic law practitioner	Specific regulations for Islamic fintech are needed	Islamic finance principles
Policy direction	Yudi Prabowo	Policy analyst	Regulatory harmonization is an urgent need	Integration of the three theories

When linked to the theory of Islamic finance principles, the findings affirm that the normative objectives of Islamic finance emphasizing justice, transparency, and social benefit have not yet been fully internalized in digital fintech practices. Conceptually, Islamic finance principles place ethical and moral values as the primary foundation for all economic activities, including the use of financial technology. However, the study shows that the development orientation of Islamic fintech still tends to prioritize efficiency, service speed, and market expansion, while the value-based and ethical dimensions of Sharia have not yet become central in digital system design and governance. This indicates a tension between the demands of rapid technological innovation and the need to preserve the integrity of Sharia principles, which are normative and substantive in nature.

From the perspective of justice as a key pillar of Islamic finance, the study shows that Islamic fintech has indeed expanded access to financing for groups previously marginalized by conventional banking systems. Nevertheless, justice in Sharia principles is not limited to access alone; it also includes fairness in contract structures, risk-sharing arrangements, and protection for weaker parties. Qualitative findings reveal that some users do not fully understand the contract (*akad*) mechanisms applied by Islamic fintech platforms, weakening their bargaining position in digital transactions. This suggests that

procedural justice and informational justice integral parts of Sharia principles have not yet been fully realized in digital fintech practice.

Transparency is also a major point highlighted in this study. Islamic finance principles require clarity and openness of information in every transaction, including fund flows, fee structures, and contractual consequences. However, the findings indicate that the complexity of digital systems often makes it difficult for users to fully understand the transaction process. Although platforms provide information digitally, it is not always presented in a communicative and user-friendly manner for non-expert users. This demonstrates that transparency in Islamic fintech remains largely formalistic and has not fully become a substantive practice reflecting the openness required under Sharia principles.

Social benefit as a normative objective of Islamic finance is also not yet fully integrated into Islamic fintech business models. Ideally, Islamic fintech should function not only as a financial service provider but also as an instrument for economic empowerment and improved public welfare. The findings show that while Islamic fintech contributes to greater access to financing, social-oriented initiatives such as business mentoring, Islamic financial literacy education, and user capacity building remain relatively limited. This suggests that social benefit is still narrowly understood as expanded access, rather than as a systematic effort to achieve broader *maqasid al-sharia* objectives.

The qualitative findings also reveal variations in the interpretation and implementation of Sharia contracts across fintech providers. Each platform tends to develop its own interpretation of the contracts used in financing, investment, and payment systems. This variation reflects not only innovation flexibility but also the absence of uniform Sharia compliance standards. From the perspective of Islamic finance theory, diversity of interpretation should remain within a clear *fiqh* methodological framework and be subject to strict oversight. However, in digital fintech practice, these interpretive differences are often not accompanied by adequate clarification and supervision mechanisms, creating potential Sharia legal ambiguity.

These variations in contract implementation become even more problematic when linked to the automated and real-time nature of digital systems. In fintech systems, contracts are often represented by rapid digital consent, leaving limited space for explanation and user understanding. The findings show that some fintech operators prioritize process simplicity for user convenience, but at the cost of deeper comprehension of Sharia contracts. This condition contradicts Sharia principles that emphasize clarity of contracts and the full awareness of the parties involved, thereby increasing the risk of substantive Sharia non-compliance.

The lack of uniform Sharia compliance standards, as emphasized by the study's findings, reinforces the core problem raised in this research. In the absence of clear and binding guidelines, fintech providers tend to develop compliance practices based on their own interests and internal capacities. This not only creates inconsistency across platforms, but also generates uncertainty for users and investors. In the long term, such conditions may reduce public trust in Islamic fintech as a financial institution that upholds Islamic values. Trust is a crucial form of social capital in Islamic finance, and erosion of trust may have serious implications for industry sustainability.

Overall, this discussion emphasizes that the main challenge for Islamic fintech in the digital era is not merely technological, but rather the internalization of Sharia values and principles within an evolving digital ecosystem. The findings suggest that Sharia-based claims unsupported by strong compliance standards and consistent practices may create a gap between normative ideals and operational realities. Therefore, embedding Islamic finance principles into digital fintech requires a more comprehensive approach, including stronger regulation, improved users' Sharia literacy, and the integration of ethical values into technology design. Without these efforts, the digital transformation of Islamic fintech risks losing its normative legitimacy, even if it achieves technical efficiency and financial inclusion.

The study also reveals a significant gap between the financial inclusion potential offered by Islamic fintech and the existing regulatory framework. Quantitative data indicate a growing number of Islamic fintech users in recent years, suggesting that digitalization has been effective in reaching previously underserved segments. However, interviews with regulators and legal practitioners indicate that fintech regulations still focus more on system stability and consumer protection, while the Sharia compliance dimension remains insufficiently detailed and not fully integrated.

This gap can be explained through the integration of the three theories applied in the study. Financial innovation theory explains that innovation often develops faster than regulation, creating policy gray areas. Digital payment systems theory highlights that technological complexity increases oversight and accountability challenges. Meanwhile, Islamic finance principles theory demands legal certainty and clear ethical standards. The findings indicate that these three dimensions have not yet been fully connected within the Islamic fintech regulatory framework, thereby widening the gap between practice and principles.

In relation to the implementation of the research problem formulation, the results show that the digital transformation of Islamic fintech does contribute positively to financial inclusion and the acceleration of halal financing, as reflected by increased access and user satisfaction. However, the results also indicate that this contribution remains largely quantitative and has not yet fully improved in quality from the perspective of Sharia compliance. This addresses the research question regarding the extent to which Islamic fintech can achieve financial inclusion goals without compromising Sharia principles. From the perspective of financial innovation theory, digitalization creates economic value added; however, from the perspective of Islamic finance theory, ethical and normative values still require strengthening.

The study further confirms that weak Sharia compliance standards are driven not only by regulatory limitations, but also by limited institutional capacity. Interviews with Sharia supervisory boards indicate that overseeing digital systems requires technological competencies that not all supervisors currently possess. This reinforces earlier research gaps and highlights the importance of integrating Sharia expertise with technological understanding, as suggested by recent developments in digital payment systems theory.

With respect to the research objectives, the findings show that the objective of analyzing the role of Islamic fintech's digital transformation in promoting financial inclusion and halal financing has been achieved. Empirical data confirm that digitalization is an effective instrument for expanding financial access. At the same time, the objective of identifying weaknesses in Sharia compliance standards is also clearly supported. The study shows that strengthening regulation and Sharia oversight is a critical prerequisite to ensure that the benefits of digitalization are not merely technical, but also aligned with the objectives of *maqasid al-sharia*.

When linked to financial innovation theory, the findings suggest that Islamic fintech innovation is in an expansion phase, where the primary focus remains on user growth and service efficiency. In this phase, the risk of Sharia non-compliance tends to increase unless balanced by adaptive regulation. From the perspective of digital payment systems theory, the speed and volume of transactions require technology-based supervision systems. Meanwhile, Islamic finance principles theory emphasizes that the ultimate objective of financial innovation is not only efficiency, but also justice and social sustainability.

The theoretical contribution of this study is reflected in its enrichment of the integration among financial innovation theory, digital payment systems, and Islamic finance principles. The findings indicate that these three theories cannot stand alone in explaining Islamic fintech phenomena. Their integration provides a more comprehensive analytical framework for understanding both the challenges

and opportunities of digital transformation in the context of Islamic finance. This supports the development of Islamic finance theory that is more adaptive to technological change.

Academically, this study contributes methodologically through the application of a mixed-methods approach capable of capturing the complexity of Islamic fintech phenomena. Integrating quantitative and qualitative data allows researchers not only to identify general patterns, but also to understand the dynamics behind those patterns. This is consistent with standards in reputable international journals that emphasize the importance of triangulation and analytical depth.

The practical implications of this study are relevant for regulators, industry actors, and society. The findings suggest that regulators need to strengthen the Islamic fintech regulatory framework by establishing clear Sharia compliance standards integrated with Islamic banking regulation. For industry actors, the findings emphasize the importance of investing in technology-based Sharia supervision systems and enhancing the capacity of Sharia supervisory boards. For the public, the study provides a more critical understanding of the importance of Sharia compliance when selecting fintech services.

By linking the results to the three theories employed, this study demonstrates that its novelty lies in emphasizing the urgency of harmonizing digital innovation and Sharia principles through stronger regulation and supervision. The findings not only confirm previous evidence regarding fintech's benefits for financial inclusion, but also add a new dimension concerning Sharia non-compliance risks in the digital era. Thus, the study provides a substantive contribution to the development of sustainable and just Islamic fintech policy, theory, and practice.

The discussion of this study focuses on a critical interpretation of the empirical findings on the digital transformation of Islamic fintech in promoting financial inclusion and accelerating halal financing, by situating them within the context of the study's main problem, the identified research gap, the research questions, the research objectives, and the theoretical, practical, and academic contributions. This discussion links the study's results to relevant prior research, thereby clarifying the position and contribution of this study to the development of scholarship and practice in Islamic fintech.

The study's main problem namely, the lack of Sharia compliance standards in the Islamic fintech sector can be understood as a consequence of accelerating digitalization that is not always aligned with institutional and regulatory readiness. The findings show that Islamic fintech has succeeded in expanding access to financing and increasing financial inclusion, particularly for groups previously underserved by formal banking. This is consistent with prior studies indicating that digital innovation can reduce transaction costs and improve the efficiency of financial services. However, this study deepens that discourse by demonstrating that technological success does not automatically guarantee strong Sharia compliance. Earlier studies have tended to emphasize fintech's benefits in terms of economics and accessibility, whereas this study highlights a frequently overlooked normative dimension: the consistency of Sharia principle implementation within a digital ecosystem.

Table 3. Integration of Qualitative and Quantitative Findings (Mixed Methods)

Quantitative Findings	Qualitative Findings	Research Implications
High scores on service speed	Informants view digitalization as highly efficient	Islamic fintech effectively promotes inclusion
Moderate scores on Sharia compliance	Sharia supervisory board (SSB) members report non-uniform standards	Sharia compliance standardization is needed
Low scores on regulation	Regulators acknowledge regulatory limitations	Policy harmonization is urgent

Quantitative Findings	Qualitative Findings	Research Implications
High user satisfaction	Users have limited understanding of <i>akad</i>	Education and transparency must be improved
Increased MSME access	Fintech serves as an alternative source of financing	Stronger Sharia governance is needed

Compared with prior research, the main issue identified in this study reflects a recurring structural pattern: regulation and ethical standards lag behind the pace of financial technology innovation. This phenomenon is not new in fintech studies; however, in the context of Islamic fintech, its impact becomes more complex because it involves normative and religious dimensions that directly affect legitimacy and public trust. A range of prior studies shows that technological innovation in the financial sector tends to evolve disruptively, while regulation is reactive and requires time to adapt. This study reaffirms that pattern by showing that the rapid digitalization of Islamic fintech has not been accompanied by a mature and integrated regulatory framework and Sharia ethical standards.

Several earlier studies also suggest that Islamic fintech remains at an experimental stage in integrating Sharia principles into digital systems. This experimental stage is characterized by diverse business models, contract (*akad*) mechanisms, and Sharia oversight approaches across platforms. This study confirms that condition through empirical findings indicating that Islamic fintech actors are still making incremental adjustments to Sharia principles, especially when confronted with demands for efficiency, speed, and scalability in digital systems. In other words, Islamic fintech remains in a formative phase, searching for a stable balance between Sharia compliance and technological innovation demands.

However, this study goes beyond confirming prior findings by providing empirical evidence of the direct implications of non-uniform Sharia compliance standards for users' perceptions and trust. The findings show that although users acknowledge the benefits of Islamic fintech in terms of convenience and service speed, there is considerable doubt regarding the consistency of Sharia principle implementation. This doubt arises from differences in practices across platforms, limited transparency regarding *akad* mechanisms, and minimal accessible information for users about Sharia oversight processes. These findings enrich the literature, which has largely emphasized technology adoption, by adding psychological and trust-related dimensions as critical variables for the sustainability of Islamic fintech.

In this context, the results indicate that the key challenges of Islamic fintech cannot be reduced to technical issues or the availability of technology alone. Instead, the fundamental problem lies in the weak institutionalization of Sharia values within a structured and binding digital framework. Sharia values such as justice, transparency, and the prohibition of speculative practices are often understood normatively, yet have not been fully translated into concrete digital operational standards. This study shows that without strong institutionalization, Sharia principles risk becoming merely symbolic labels rather than substantive guidelines for fintech practice.

The study also shows that weak institutionalization of Sharia values is closely related to fragmented stakeholder roles within the Islamic fintech ecosystem. Regulators, industry actors, and Sharia oversight institutions often operate in separate frameworks with limited coordination. Prior research has identified such coordination problems, but this study adds that fragmentation is further intensified by the cross-sectoral and cross-boundary nature of digital technology. As a result, no single authority is fully able to ensure that all operational aspects of Islamic fintech consistently comply with Sharia principles.

Furthermore, this study suggests that regulatory and Sharia ethical standard lag also shapes the direction of Islamic fintech innovation itself. Under unclear regulatory conditions, innovation tends to be driven by market considerations and economic efficiency, while ethical and Sharia considerations become secondary. This aligns with earlier findings that financial innovation without strong ethical guidance can generate systemic risks and value deviation. Accordingly, this study argues that without institutional strengthening, Islamic fintech risks losing its primary differentiation as a value-based financial alternative.

From a theoretical standpoint, these findings strengthen the argument that integrating Sharia principles into fintech cannot be left solely to market mechanisms or individual initiatives by business actors. This study indicates that an institutional framework is needed to internalize Sharia values into system design, transaction flows, and digital oversight mechanisms. Unlike earlier studies that tend to be more normative, this study provides empirical evidence that failure to institutionalize Sharia compliance directly affects perceptions of Islamic fintech's legitimacy among users. This positions Sharia compliance as a strategic factor rather than merely a supplementary component.

Overall, this discussion reinforces the conclusion that the core challenge for Islamic fintech lies not in technological limitations or low adoption rates, but in the gap between digital innovation and the strengthening of Sharia values within an established institutional framework. This study extends prior research by showing that the lag in regulation and Sharia ethical standards is not merely an administrative issue, but also a matter of trust, legitimacy, and long-term sustainability. Therefore, the findings highlight the urgency of shifting the focus of Islamic fintech development away from technological acceleration alone toward strengthening the institutionalization of Sharia values within the digital ecosystem.

The research gap identified in this study is rooted in a lack of synchronization between the substantial potential of Islamic fintech as a tool for financial inclusion and the empirical reality of Sharia compliance practices that still face multiple constraints. Normatively, Islamic fintech is positioned as an innovative solution to expand access to financial services for Muslim communities previously marginalized by conventional banking. Through digital technology, Islamic fintech offers faster financing processes, relatively lower costs, and broader outreach to underserved regions and social groups. However, this potential has not been fully realized in practice because implementing Sharia principles in digital environments continues to face structural and institutional challenges.

A number of prior studies emphasize that Islamic fintech has significant capacity to promote financial inclusion, especially in countries with large Muslim populations such as Indonesia, Malaysia, and Middle Eastern nations. These studies generally show that digitalization can reduce administrative barriers, improve financial literacy, and open access to financing for micro and small enterprises. In this context, Islamic fintech is often viewed as a catalyst for value-based economic growth. Yet, the primary focus of such studies tends to be technology adoption, user growth, and macroeconomic impacts meaning that Sharia compliance is often treated as a normative assumption rather than an empirically tested variable.

Methodological limitations in prior research also contribute to the research gap. Many Islamic fintech studies rely on conceptual approaches or quantitative indicators that remain broad, such as adoption levels, user satisfaction, or contributions to financial inclusion. Such approaches are insufficient to capture the complexity of Sharia compliance practices within a dynamic digital ecosystem. Key aspects such as digital *akad* mechanisms, fund flows, the role of Sharia supervisory boards, and interactions between regulators and fintech providers are rarely examined in depth. As a result, understanding of how Sharia principles are actually applied in digital fintech practice remains partial.

This gap becomes more evident when growth in user numbers and transaction volumes is not matched by improved Sharia governance quality. This study shows that the growth of the Islamic fintech industry is driven more by market demand for fast and convenient financial services than by institutional commitments to strengthening Sharia compliance. This reflects a phenomenon also discussed in financial innovation literature, where the speed of innovation often exceeds the capacity of regulation and oversight to adapt. In Islamic fintech, this imbalance becomes more complex because it involves normative and ethical dimensions that constitute the foundation of Islamic finance.

Regulation and Sharia oversight are key elements in explaining this gap. The study finds that fintech regulatory frameworks in many jurisdictions remain general and do not specifically govern Sharia compliance mechanisms in digital environments. Existing regulations prioritize financial system stability, technology risk mitigation, and consumer protection, while Sharia compliance standards are often left to the interpretation of individual fintech operators. This produces wide variation in practices and potentially creates inconsistencies between Sharia claims and actual implementation.

In addition, the institutional capacity of Sharia supervision is another major factor. Sharia supervisory boards in many Islamic fintech platforms still face resource constraints in terms of numbers, technological competence, and supervisory authority. In real-time, algorithm-based digital systems, Sharia oversight that remains manual and periodic becomes less effective. This study shows that such conditions weaken the ability of Sharia supervisors to ensure that every transaction and product innovation truly aligns with Sharia principles.

The gap between potential and reality also affects public trust in Islamic fintech. Although users experience practical benefits such as convenience and service speed, unclear Sharia compliance standards can raise doubts about the Sharia legitimacy of the offered products. This study shows that some users choose Islamic fintech more for pragmatic reasons than for full confidence in its Sharia conformity. This indicates that without stronger Sharia regulatory and oversight mechanisms, Islamic fintech risks shifting orientation away from *maqasid al-sharia* values toward mere economic efficiency.

Thus, this study addresses a gap in the literature by providing empirical evidence that increased financial inclusion through Islamic fintech does not automatically ensure fulfillment of Sharia principles. The main contribution lies in emphasizing that Islamic fintech success should be assessed not only by user growth and transaction volumes, but also by the quality of governance and Sharia compliance. By highlighting the gap between potential and practice, this study provides a conceptual and empirical basis for policy development and future research that more strongly emphasizes harmonization between digital innovation and Sharia values.

The discussion of this research gap shows a structural gap between the ideal objectives of Islamic finance and the practices of digital fintech. Prior research often assumes that a Sharia label on fintech is sufficient to ensure compliance with Islamic principles. In contrast, this study demonstrates that such a label must be supported by clear operational standards and regulation. By linking these findings to prior studies, this discussion emphasizes that the gap is not merely technical, but also institutional and normative, requiring more comprehensive policy and governance approaches.

The research questions focusing on how Islamic fintech's digital transformation affects financial inclusion and Sharia compliance can be explained more deeply through discussion of prior findings. Earlier studies typically answer the extent to which fintech increases financial access, but rarely connect this to the quality of Sharia compliance. This study provides a more nuanced answer by showing that Islamic fintech is effective in expanding access, yet faces serious challenges in maintaining Sharia consistency.

This discussion suggests that the research questions cannot be answered dichotomously in terms of success or failure. Islamic fintech's digital transformation is successful from a financial inclusion standpoint, consistent with prior research. However, in terms of Sharia compliance, this study reveals

weaknesses that have not been widely discussed in earlier literature. Therefore, this discussion broadens understanding of the research questions by emphasizing the importance of balancing the quantity of access with the quality of compliance.

The research objective of analyzing the role of Islamic fintech's digital transformation and identifying the need to strengthen Sharia regulation becomes clearer when compared with prior studies. Many earlier studies focus on technology adoption and user behavior, whereas this study adds regulatory and oversight analysis. The discussion shows that the objective has been achieved: digitalization is indeed an effective instrument for financial inclusion, but it does not fully support *maqasid al-sharia* goals without adequate supervision.

This discussion also highlights the strong practical relevance of the research objectives. Prior studies often recommend expanding Islamic fintech without explicitly stressing the need for compliance standardization. This study emphasizes that Islamic fintech development should be oriented not only toward industry growth, but also toward strengthening Sharia values and ethics. Accordingly, the objective offers a more balanced perspective between economic and normative interests.

The theoretical contribution of this study can be discussed by linking it to prior research that still separates financial innovation, digital payment systems, and Islamic finance studies. The discussion shows that these three dimensions are interrelated and cannot be analyzed in isolation. Prior research tends to situate Islamic fintech either within a general financial innovation framework or within a purely normative Islamic framework. This study demonstrates that integrating these theories is necessary to understand the complexity of Islamic fintech in the digital era.

The practical contribution can be understood by comparing implicit recommendations in prior studies with this study's empirical findings. Many earlier studies advocate increasing Islamic fintech adoption to expand financial inclusion. This study shows that such recommendations must be complemented by stronger regulation and Sharia compliance standards. Therefore, its practical value lies in providing an empirical basis for regulators and industry actors to formulate policies that better balance innovation and compliance.

The academic contribution can also be discussed in relation to methodological limitations in prior research. Most earlier studies use single-method approaches that struggle to capture the complexity of Islamic fintech phenomena. This study demonstrates that mixed methods enable deeper and more comprehensive analysis. This offers an academic contribution in the form of a methodological approach that can be replicated or further developed in future research.

In conclusion, this discussion emphasizes that the digital transformation of Islamic fintech is a multidimensional phenomenon that cannot be understood from a single perspective. By linking the study's findings to prior research, the discussion shows that the main problem, the research gap, the research questions, the research objectives, and the theoretical, practical, and academic contributions are interrelated within a unified analytical framework. This study reinforces earlier findings on the potential of Islamic fintech while adding a new contribution by highlighting the urgency of strengthening Sharia compliance standards as a key prerequisite for the sustainability and legitimacy of Islamic fintech in the digital era.

CONCLUSION

The conclusion of this study emphasizes that the digital transformation of Islamic fintech has become an important instrument in expanding financial inclusion and accelerating access to halal financing, particularly for groups that have not been optimally served by formal financial institutions. Based on the study's results and discussion, digitalization has been shown to reduce access barriers, speed up transaction processes, and improve the efficiency of financing distribution. These findings confirm that the use of digital technology in Islamic fintech aligns with the objective of expanding financial inclusion, which has long been a key agenda in the development of the Islamic finance sector.

Nevertheless, this conclusion also underscores that the success of digitalization has not been fully matched by the strengthening of adequate Sharia compliance standards. The findings indicate an imbalance between the pace of technological innovation and the readiness of regulation and Sharia institutions. In practice, many Islamic fintech platforms still face challenges in translating Sharia principles into complex and fast-moving digital systems. This situation may create Sharia non-compliance risks that can reduce public trust and hinder the sustainability of the Islamic fintech industry.

This conclusion is reinforced by the discussion, which shows that existing fintech regulatory frameworks still place greater emphasis on system stability and consumer protection, while the Sharia compliance dimension has not been comprehensively integrated. The lack of uniform standards and Sharia oversight mechanisms that are adaptive to digital technology is a major factor widening the gap between the normative objectives of Islamic finance and fintech practices on the ground. Accordingly, the digital transformation of Islamic fintech cannot be understood merely as a technical matter, but also as an institutional and normative challenge.

Based on the integrated results and discussion, this study concludes that strengthening Sharia oversight is a fundamental prerequisite to ensure that the financial inclusion benefits generated by Islamic fintech remain aligned with the principles of justice, transparency, and sustainability that underpin Islamic finance. Digitalization without clear compliance standards risks shifting Islamic fintech's orientation away from *maqasid al-sharia* values toward mere economic efficiency. Therefore, regulatory harmonization between fintech and Islamic banking has become an urgent need to create a credible and sustainable digital Islamic finance ecosystem.

This conclusion also highlights the study's academic contribution in enriching Islamic fintech scholarship through an integrative approach combining financial innovation, digital payment systems, and Islamic finance principles. The findings demonstrate that these three dimensions are interconnected and must be analyzed simultaneously to understand Islamic fintech dynamics comprehensively. Thus, the study not only reinforces earlier findings on fintech's role in financial inclusion, but also adds a new perspective on the importance of strengthening Sharia compliance standards in the digital era.

Overall, this study concludes that the digital transformation of Islamic fintech has strong potential to promote financial inclusion and accelerate halal financing; however, its success depends heavily on the ability of regulators, industry actors, and Sharia supervisory institutions to respond to digital challenges in an adaptive and collaborative manner. Strengthening regulation, enhancing the capacity of Sharia supervision, and harmonizing cross-sector policies are strategic steps required to ensure that Islamic fintech can develop sustainably while remaining grounded in Sharia values.

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