Smart Contracts in Increasing Sharia Compliance on Peer To Peer Lending Platforms in Sharia Fintech

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Article Information
Vol: 1 No : 1 2025
Page : 45-55

Abstract

Sharia fintech is a digital financial innovation that integrates technology with sharia principles, one of which is through a Peer To Peer (P2P) lending platform. However, in practice, various sharia compliance issues are still found, such as the potential for usury, gharar, and non compliance with contracts. This is due to limited manual supervision and the complexity of digital transactions. This study aims to analyze the potential for implementing smart contract technology to improve sharia compliance on P2P lending platforms. Using a qualitative approach through literature studies, this article examines how smart contract characteristics such as transparency, automation, auditability, and resistance to manipulation can support the implementation of sharia contracts such as murabahah, mudharabah, and musyarakah. The results of the study show that smart contracts enable the automatic implementation of sharia compliant transactions, reject unauthorized processes, and provide an immutable blockchain based monitoring and reporting system. This potential makes it a strategic tool in building a more accountable, efficient, and trusted sharia fintech ecosystem. However, the implementation of this technology still faces challenges, such as limited regulations, the need for multidisciplinary human resources, and low digital sharia literacy. Therefore, collaboration between scholars, regulators, and technology developers is needed to ensure that the implementation of smart contracts is not only technically superior, but also in accordance with the maqashid sharia. This study recommends the development of prototypes and further empirical research as concrete steps for implementation.

Keywords:
smart contract
sharia compliance
Peer To Peer lending
sharia fintech

Abstrak

Fintech syariah merupakan inovasi keuangan digital yang mengintegrasikan teknologi dengan prinsip-prinsip syariah, salah satunya melalui platform Peer To Peer (P2P) lending. Namun, dalam praktiknya, masih ditemukan berbagai permasalahan kepatuhan syariah, seperti potensi riba, gharar, dan ketidakpatuhan terhadap akad. Hal ini disebabkan oleh keterbatasan pengawasan secara manual dan kompleksitas transaksi digital. Penelitian ini bertujuan untuk menganalisis potensi penerapan teknologi smart contract untuk meningkatkan kepatuhan syariah pada platform P2P lending. Dengan menggunakan pendekatan kualitatif melalui studi literatur, artikel ini mengkaji bagaimana karakteristik smart contract seperti transparansi, otomatisasi, auditabilitas, dan ketahanan terhadap manipulasi dapat mendukung implementasi akad-akad syariah seperti murabahah, mudharabah, dan musyarakah. Hasil penelitian menunjukkan bahwa smart contract memungkinkan implementasi otomatis transaksi yang sesuai dengan syariah, menolak proses yang tidak sah, dan menyediakan sistem pemantauan dan pelaporan berbasis blockchain yang tidak dapat diubah. Potensi ini menjadikannya sebagai sarana strategis dalam membangun ekosistem fintech syariah yang lebih akuntabel, efisien, dan terpercaya. Namun demikian, implementasi teknologi ini masih menghadapi tantangan, seperti keterbatasan regulasi, kebutuhan sumber daya manusia yang multidisiplin, dan rendahnya literasi syariah digital. Oleh karena itu, kolaborasi antara ulama, regulator, dan pengembang

teknologi sangat diperlukan untuk memastikan implementasi smart contract tidak hanya unggul secara teknis, tetapi juga sesuai dengan maqashid syariah. Penelitian ini merekomendasikan pengembangan prototipe dan penelitian empiris lebih lanjut sebagai langkah konkret untuk implementasi.

Kata Kunci : smart contract, kepatuhan syariah, Peer To Peer lending, fintech syariah

INTRODUCTION

The development of information and communication technology has had a significant impact on all aspects of life, including the financial sector. One of the most striking innovations in recent years is the emergence of financial technology (fintech) which offers digital technology based financial services. Among the various types of fintech services that are developing, Peer To Peer (P2P) lending has emerged as a financing alternative that is able to bridge between fund owners (lenders) and fund seekers (borrowers) directly through an online platform, without the need to go through conventional financial institutions such as banks(Kholidah dkk., 2022).

Along with the high demand for fast, easy, and efficient financing, sharia fintech is present as a financial solution that is not only technologically innovative, but also in line with sharia principles. Sharia fintech aims to provide digital financial services that are free from riba (interest), gharar (uncertainty), and maysir (speculation/gambling), and uphold the values of justice, transparency, and social responsibility.

One of the main services in the sharia fintech ecosystem is sharia based P2P lending. This service is a promising financing alternative for people who avoid conventional interest systems. In this scheme, sharia contracts such as murabahah, musyarakah, mudharabah, ijarah, and other contracts are used as the legal basis for financing transactions. However, although conceptually it has met sharia principles, practice in the field often faces challenges in terms of sharia compliance.

One of the fundamental problems in sharia P2P lending is the inconsistency between the concept of the contract and its technical implementation on the digital platform. Several platforms are still unable to ensure that the entire process from offering, verification, transactions, to settlement—runs in accordance with Islamic law(Wahidiyah dkk., 2024). For example, in several cases, there have been practices of disguising interest with margin labels, unclear objects of the contract, or disproportionate risk transfer. This shows that even though the platform claims to be "sharia", its actual practices are still vulnerable to violations of basic sharia principles.

Furthermore, supervision of transactions on the sharia P2P lending platform is still carried out manually by the sharia compliance team or the Sharia Supervisory Board (DPS), which has limitations in terms of time, human resources, and scope of supervision. In a very fast and massive digital context, the manual approach to sharia supervision becomes less efficient and prone to negligence. Therefore, a solution is needed that can ensure that every transaction carried out on the sharia fintech platform is truly in accordance with sharia principles automatically and in real time(Fithria, 2022).

One technology that is considered to have great potential to overcome this problem is smart contracts. Smart contracts are computer programs that run on blockchain technology, which automatically execute agreements between two parties without the need for third party intervention. In the context of fintech, smart contracts allow for transparent, secure, and unilaterally irreversible transactions. Every instruction that has been embedded in the program code will be executed automatically if the agreed conditions have been met.

Smart contracts can be used in sharia fintech to automate transaction processes based on sharia contracts. For example, in a murabahah contract, smart contracts can be programmed to regulate financing schemes, delivery of goods, and installment payments based on agreed selling prices and margins. The entire series of processes are recorded permanently and can be audited by regulators or DPS. Thus, the use of smart contracts not only increases operational efficiency but also strengthens sharia integrity in transactions(Rofiqo, 2022).

Moreover, smart contracts also have the potential to eliminate dependence on human intermediaries in making important decisions, which are often a source of subjectivity or

deviation. Every decision and action in a transaction will be executed according to the code that has been agreed upon from the start. This can avoid hidden usury practices or data manipulation, because the entire process is controlled by algorithmic logic that has been studied by sharia experts and is permanently locked in the blockchain.

However, the implementation of smart contracts in sharia P2P lending is not without challenges. A deep understanding of Islamic law is needed to be able to translate sharia principles into the right programming language. In addition, not all platforms have the technological infrastructure that supports smart contract integration. Security issues, scalability, and the availability of human resources who understand both technological and sharia aspects are also challenges in themselves.

On the other hand, regulations regarding the use of smart contracts in the financial industry especially those based on sharia—are still in their early stages. Otoritas Jasa Keuangan (OJK), Bank Indonesia, and the National Sharia Council Indonesian Ulema Council (DSN MUI) need to formulate clear guidelines regarding the standardization, accountability, and acceptability of the use of smart contracts in digital sharia financial services. Without a clear legal framework, the adoption of this technology risks facing legal rejection or uncertainty(Zakiyah dkk., 2021).

Considering this background, a study on the potential of smart contracts in improving sharia compliance on P2P lending platforms is important and relevant to conduct. This study not only aims to review the technical and legal aspects of using smart contracts, but also highlights how this technology can be a strategic instrument to strengthen public trust in sharia fintech. Amidst the challenges of digital disruption and demands for inclusive finance, the use of technology such as smart contracts is expected to accelerate the transformation of the sharia financial industry towards a more automated, accountable, and sharia compliant system.

This research is expected to contribute to the development of science in the field of Islamic economics, financial technology, and become a policy reference for regulators and fintech developers in creating a digital ecosystem that is healthy, fair, and in accordance with Islamic values.

The development of the technology based financial industry or financial technology (fintech) has revolutionized the way people interact with financial services. One of the rapidly growing fintech services is Peer To Peer (P2P) lending, a financing system that directly brings together lenders and borrowers through a digital platform without going through conventional financial institutions. P2P lending offers various conveniences such as speed, efficiency, and accessibility for people who have not been optimally served by banks.

However, in the context of Muslim society that wants to implement sharia compliant financial principles, there is a need for a sharia P2P lending system. This system aims to provide alternative financing that is free from riba, gharar, and maysir practices, and prioritizes the principles of justice and partnership. In practice, various sharia fintech platforms have emerged in Indonesia and globally, carrying contracts such as murabahah (sale and purchase), ijarah (rent), musyarakah (partnership), and mudharabah (profit sharing) as the basis for transactions. However, the implementation of sharia principles in digital P2P lending is not as easy as imagined.

The main problem that arises is regarding sharia compliance of the system and transaction processes that occur within the digital platform. Sharia compliance is not only limited to the name of the contract used, but also includes the method of implementation, verification mechanisms, distribution of funds, determination of margins or profits, to dispute resolution. The challenge becomes greater when the platform is unable to consistently monitor the course of transactions according to sharia principles, especially when the transaction volume increases and is carried out automatically.

So far, supervision of sharia compliance is usually carried out by the Sharia Supervisory Board (DPS) through periodic audits or manual reviews of transaction documentation. However, this method has many limitations, such as dependence on human analysis, verification delays, and the risk of negligence. In the digital era that demands efficiency and speed, manual supervision is no longer sufficient to guarantee comprehensive and real time sharia compliance(Suryani dkk., 2023).

In response to these challenges, smart contracts are present as a new technology that has great potential to improve sharia compliance automatically and in a structured manner. Smart contracts are digital programs that run on a blockchain system, which allow agreements between two parties to be executed automatically based on previously agreed terms and conditions. The main advantages of smart contracts are their ability to minimize human intervention, are transparent, cannot be modified unilaterally, and can be audited at any time.

In the context of sharia P2P lending, smart contracts can be used to regulate and execute the entire series of transactions starting from financing offers, contract selection, contract implementation, fund distribution, to automatic settlement. Every condition and pillar of a sharia contract can be codified in the form of a digital command, so that there is no room for unintentional or hidden violations of sharia principles. Thus, smart contracts can function as a digital tool to monitor sharia compliance and assist DPS in ensuring that all transactions are carried out in accordance with Islamic law(Rasyidin, t.t.).

This research was conducted with two main objectives. First, to examine in depth how smart contracts function to improve sharia compliance in P2P lending systems. This includes an analysis of the technical functions of smart contracts, how they can represent sharia contracts in the form of programming code, and how this system can reduce sharia violations in transactions.

Second, this study aims to develop a smart contract implementation model that is in accordance with sharia principles. This model is expected to provide a conceptual and technical framework for sharia fintech platforms in integrating smart contracts into their systems effectively and efficiently, while still paying attention to the values of fairness, clarity, and transparency(Marbun dkk., 2024).

In practice, the results of this study can be an important reference for regulators such as OJK, DSN MUI, and developers of sharia fintech applications in designing digital systems that are not only innovative but also in accordance with sharia provisions. With a proven model based on Islamic principles, the sharia P2P lending platform will be more trusted and able to increase literacy and participation of the Muslim community in the digital financial ecosystem.

Thus, this research acts as a bridge between the strict requirements of sharia and the demands of modern technological efficiency, and becomes the initial foothold in creating a superior, fair, and sustainable digital financial system in accordance with the maqashid sharia.

METHOD

This study uses a descriptive qualitative approach with a library research method as the main basis(Ardyan dkk., 2023). This approach was chosen because the focus of the study lies in the analysis of the concept and potential of smart contract technology integration in improving sharia compliance on the sharia P2P lending platform. This study can also be enriched with a case study approach to certain sharia fintech platforms, as well as the design of a conceptual model that describes the integration of sharia principles in the smart contract code.

Data were collected through literature searches, including scientific journals, regulatory reports, blockchain and smart contract technical documentation, and sharia fatwas related to digital contracts and transactions issued by the National Sharia Council Indonesian Ulema Council (DSN MUI). In addition, if necessary, this study can be supplemented with in depth interviews with sharia fintech platform developers, blockchain technology experts, and sharia economic experts to gain practical and contextual insights into the challenges and opportunities of smart contract integration in sharia financial practices(Irianto, 2017).

In analyzing the data, researchers used content analysis and conceptual mapping techniques to identify the suitability between the smart contract structure and the basic principles of sharia. The validation process was carried out by reviewing the results of the analysis based on the rules of fiqh muamalah and maqashid sharia, so that the model or framework prepared is not only technically relevant, but can also be justified in terms of Islamic law.

RESULTS AND DISCUSSION

A. Sharia Fintech Concept

Sharia financial technology (fintech) is a combination of information technology with Islamic financial principles in order to provide efficient, inclusive, and sharia compliant financial

service solutions. In sharia fintech, every transaction must comply with Islamic principles such as the prohibition of riba (interest), gharar (uncertainty), maysir (speculation), and must be based on justice, honesty, and openness(Utomo, 2020).

The basic principles of sharia fintech refer to Islamic muamalah laws, which emphasize the validity of the contract, the permissibility of the transaction object, and justice and transparency in the relationship between the transacting parties. Sharia fintech services generally involve contracts such as murabahah (buying and selling with a profit margin), ijarah (rent), mudharabah (capital business cooperation), and musyarakah (capital cooperation from both parties)(Akhmad dkk., 2021).

In Indonesia, regulations related to sharia fintech are regulated by Otoritas Jasa Keuangan (OJK), through regulations such as POJK No. 77/POJK.01/2016 concerning information technology based money lending services. In addition, the sharia compliance aspect also refers to the fatwas of the National Sharia Council Indonesian Ulema Council (DSN MUI), such as DSN MUI Fatwa No. 117/DSN MUI/II/2018 concerning Financing Services Based on Information Technology Based on Sharia Principles.

B. Peer To Peer (P2P) Sharia Lending

Peer To Peer sharia lending is a form of sharia fintech that brings together fund owners (lenders/investors) and fund seekers (borrowers/business partners) through a digital platform without the intermediary of traditional financial institutions. The difference with conventional P2P lending lies in the agreement and transaction structure that must comply with sharia principles.

In sharia P2P lending, the platform acts as a facilitator, not as a party that provides or receives funds directly. The platform only provides a system to bring together parties who want to transact in a halal scheme. Common contracts used in sharia P2P lending include:

Mudharabah, namely cooperation between capital owners and business actors, where profits are shared based on an agreed ratio and losses are borne by the capital owner except due to negligence of the business actor(Rusadi dkk., 2024).

Musyarakah, namely business cooperation in which both parties contribute capital and profits are shared according to agreement.

Murabahah, namely a sale and purchase agreement where goods are purchased by the platform and then sold to users with an agreed profit margin.

The sharia P2P lending mechanism avoids usury and interest elements, and emphasizes transparency, clarity of contracts, and fair distribution of profits. The platform is also required to provide sharia supervision through the Sharia Supervisory Board to ensure that all activities are carried out in accordance with the provisions of fiqh muamalah(Hussain, 2023).

C. Smart Contract

Smart contracts are digital programs that automatically execute the terms of a contract when certain conditions are met. This technology is usually built on blockchain platforms such as Ethereum, which provide a decentralized and tamper proof environment.

The working principle of smart contracts involves the use of programming code that stores the logic of the contract. When the conditions specified in the code are met (for example, payment is received), the contract will automatically execute the specified action (for example, delivery of goods or disbursement of funds)(Lee & Lean, 2021). Thus, smart contracts eliminate the need for third parties or human intervention in executing agreements.

The main characteristics of smart contracts include:

1. Automation: Contract execution is done automatically without the need for manual processes.
2. Transparency: All contract terms are recorded in the blockchain and can be viewed by all authorized parties(Hertneck, 2020).
3. Security and resistance to manipulation: Because it runs on the blockchain, data in smart contracts is difficult to change without the consensus of the entire network.

4. Efficiency: Reduces the time and costs typically required in traditional contract execution(Permatasari dkk., 2024).

In the context of Islamic finance, smart contracts offer great potential to build efficient and shariah compliant transaction systems automatically, provided that the logic of shariah contracts is properly codified in the digital system.

D. Sharia Compliance in Financial Technology

Sharia compliance is a central principle in all forms of Islamic financial transactions, including in the context of fintech. Some key indicators of sharia compliance include:

1. Use of valid contracts according to Islamic law (does not contain usury, gharar, or maysir).
2. Transparency in transaction processes and values.
3. Fulfillment of the pillars and conditions of the contract, such as the presence of a seller, buyer, object of the transaction, and agreement(Salleh dkk., 2022).
4. The existence of the Sharia Supervisory Board as a supervisor and validator of sharia compliance.

In digital platforms such as P2P lending, verification of sharia compliance is still mostly done manually by DPS. This often creates challenges, including limited time and manpower to monitor thousands of transactions, as well as the risk of human error or inconsistent interpretation.

Smart contracts offer a solution with automated sharia verification, where each transaction can only be carried out if all programmed sharia requirements are met. Thus, smart contracts not only increase efficiency and trust, but also make the process more accountable and transparent from an Islamic legal perspective.

DISCUSSION

A. Sharia Compliance Issues in P2P Lending

As Peer To Peer (P2P) lending platforms in the sharia fintech sector grow, various challenges arise in ensuring that every transaction is carried out in accordance with sharia principles. One of the main problems is practices that are not fully in accordance with Islamic law, either explicitly or implicitly. Several sharia P2P lending platforms are known to still have loopholes that can open up the potential for hidden usury, gharar (uncertainty), or invalid contracts(Puspita dkk., 2024).

For example, in the murabahah contract, there are still cases where the platform does not actually buy the goods first before selling them to users, but only acts as a financial intermediary. This makes the transaction more like a lending scheme with a margin (hidden interest) than a legitimate sale and purchase contract. Likewise, in the mudharabah contract, the lack of clarity regarding the distribution of risks and information related to business activities can cause elements of gharar which are forbidden in Islam(Utami & Soesetyo, 2023).

In addition, current sharia compliance supervision still relies heavily on manual supervision by the Sharia Supervisory Board (DPS). In practice, DPS faces various limitations, ranging from limited human resources, uneven technical understanding of digital transaction flows, to the challenge of monitoring thousands of transactions in real time. This condition increases the risk of unknowingly violating sharia, both by users and by the platform system itself.

Thus, a system is needed that is able to provide automatic, objective, and accurate control over the fulfillment of sharia principles in sharia P2P lending transactions.

B. Characteristics of Smart Contracts that Support Sharia Principles

Smart contracts are a technological solution that offers the potential to address these various sharia compliance issues. As a program that runs on the blockchain, smart contracts enable the automatic execution of digital agreements based on predetermined terms. The main characteristics of smart contracts are very much in line with sharia principles, including:

1. Automation of Contracts According to Sharia Principles

   Smart contracts can be designed based on the structure of sharia contracts such as murabahah, mudharabah, musyarakah, or ijarah. The program code can be programmed to only execute transactions if all the pillars and conditions of the contract have been met.

This allows contracts to be carried out without manual intervention, thus minimizing the risk of violation or negligence(HANUN, 2023).

2. Preventive of Non Halal Transactions
   Since the transaction logic has been explicitly defined in the code, smart contracts can reject transactions that contain non sharia elements, such as interest, unclear objects, or speculative transactions. Thus, this technology functions as an internal supervisor that automatically filters transactions according to the provisions of fiqh muamalah(Muhammad dkk., 2021).
3. Transparency and Resistance to Manipulation
   All smart contract code and activities are recorded in the blockchain publicly (for permissionless systems) or semi publicly (for permissioned systems). Every change or transaction will be recorded and cannot be modified unilaterally. This provides high transparency for users and sharia supervisors, while maintaining trust(Samad & Bukido, 2022).
4. Auditability and Security
   With a transaction record that cannot be deleted or changed, auditors and regulators can verify whether a transaction has been carried out in accordance with sharia principles or not. This opens up a more accountable and efficient monitoring space compared to conventional supervision.

C. Smart Contract Implementation Model in Sharia P2P Lending

To implement smart contracts in a sharia P2P lending platform, a structured implementation model is required that integrates contract logic, user input, sharia verification, and automated transaction execution. The following illustration explains the process flow that can be implemented:

1. Selection of the Contract
   Users (investors and borrowers) choose the type of contract to be used, for example murabahah or mudharabah. Each contract has a different digital contract logic scheme(Disemadi dkk., 2020).
2. Transaction Data Input
   The borrower fills in the details of the financing needs (object, nominal, term, business risk, etc.). The investor also enters the funds and parameters of financing availability.
3. Formation of Digital Contracts
   Based on the selected input and contract, the system forms a smart contract that reflects all the terms and conditions of the contract. For example, in murabahah, the system will record the cost of goods, profit margin, and payment schedule(Nguyen dkk., 2024).
4. Automatic Sharia Verification
   The contract will not be valid if there are elements that are contrary to sharia, such as excessive profit margins, unclear goods, or unfair risk distribution.
5. Automatic Execution
   Once the conditions are met, the smart contract automatically executes the transaction, such as disbursement of funds to the seller of goods, or repayment of installments by the borrower according to schedule(AlAli & Abdulla, 2024).
6. Monitoring Integration
   The entire process is monitored in real time by an internal audit module and is accessible to the Sharia Supervisory Board, as well as regulators such as OJK. Thus, the system remains transparent and legally accountable.

This model can be strengthened by the integration of additional technologies such as oracles to connect smart contracts with external data (e.g. exchange rates, prices of goods), as well as a visual interface based sharia supervision dashboard that facilitates supervision by the DPS(Syahputra & Fibrianti, 2024).

D. Potential and Challenges of Implementation

The implementation of smart contracts in the sharia P2P lending platform has various strategic potentials:

1. Operational Efficiency
   By automating processes, platforms can reduce administrative burdens, speed up verification, and save long term operational costs(Firdaus, 2020).
2. Real Time Shariah Compliance
   The sharia verification and execution process is carried out automatically by the system, thereby reducing the risk of violations and increasing user trust.
3. Minimizing Disputes
   Since all provisions are recorded digitally and cannot be changed, the chances of disputes between investors and borrowers can be reduced. The system also provides strong evidence in the settlement process if a dispute occurs(Al Sakran & Al Shamaileh, 2021).
4. Islamic Financial Innovation
   This model paves the way for the development of new digital based Islamic financial products that are more inclusive, adaptive and global in nature(Rabbani dkk., 2025).

Challenge

However, the implementation of smart contracts in the sharia context also faces several major challenges:

1. Regulatory Limitations
   The absence of regulations that specifically regulate smart contracts in the Islamic financial system can be a legal obstacle. This requires synergy between OJK, Bank Indonesia, and DSN MUI in formulating a legal umbrella that is adaptive to technology.
2. Multidisciplinary HR Needs
   The development of this system requires cross field expertise: sharia, IT, digital security, law, and business. Human resources with dual competencies are still relatively rare in Indonesia.
3. Access to Technology and Infrastructure
   Not all sharia fintech platforms have sufficient technological capacity to implement blockchain and smart contracts optimally. The initial cost of development and maintenance is also relatively high(Baso dkk., 2024).
4. Digital Sharia Literacy
   End users (investors and borrowers) need to be educated about how smart contracts work, so they can understand their rights and obligations in a relatively new automated system(Ahmad dkk., 2024).

The implementation of smart contracts in the sharia P2P lending platform offers great opportunities to improve sharia compliance in real time, reduce the risk of human error, and strengthen public trust in the sharia fintech ecosystem. However, its success is highly dependent on regulatory readiness, quality of human resources, and synergy between industry players and sharia supervisory institutions. A gradual and collaborative approach is needed so that this digital transformation remains rooted in the principles of maqashid sharia and the welfare of the people.

CONCLUSION

Smart contracts have very high potential in ensuring sharia compliance on fintech platforms, especially in Peer To Peer lending schemes. With its automatic, transparent, and non manipulable characteristics, smart contracts enable systematic supervision of sharia principles without relying on manual processes that are prone to errors. This technology is also able to create a more trusted and structured transaction environment, thereby strengthening the integrity of the sharia financial system as a whole.

Furthermore, smart contracts enable automation of the implementation of sharia contracts such as murabahah, mudharabah, and musyarakah in accordance with the provisions of fiqh muamalah. All the terms and conditions of the contract can be digitally encoded so that transactions can only occur if sharia principles have been met. This not only increases the efficiency of the transaction process, but also provides stronger compliance assurance, opens up

opportunities for the development of innovative sharia fintech products, and expands financial inclusion based on Islamic values.

RECOMMENDATION

To optimize the use of smart contracts in improving sharia compliance on Peer To Peer lending platforms, close synergy is needed between scholars as fiqh authorities, regulators as policy makers, and technology developers as system implementers. This collaboration is important so that the design and implementation of smart contracts are not only technically appropriate, but also in accordance with the principles of maqashid sharia. In addition, further research is needed based on prototype development and field trials to ensure the effectiveness, efficiency, and acceptance of this technology by users. This empirical approach will strengthen the normative and technological basis in building a trusted, adaptive, and sustainable sharia fintech ecosystem.

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