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Cultural and Legal Dimensions of Fintech Lending in Indonesia: Reformulating Law through Comparative Perspectives from the US, UK, and China

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ABSTRACT

Fintech lending, a digital financial innovation, has transformed the legal ties between lenders and borrowers. The fintech loan legislation in Indonesia, as stipulated by OJK Regulation No. 40 of 2024 and supplementary rules, has inadequately addressed contemporary legal concerns like as personal data privacy, algorithmic fairness, and technology-driven oversight. This paper analyses Indonesia's fintech loan regulations in comparison to those of the US, UK, and China to enhance them. The analysis indicates that Indonesia's legislation contains substantial deficiencies. A definitive structure for segregating lender money, evaluating public loan risk, or integrating personal data protection regulations into digital service systems is absent. This report suggests three clusters of RegTech reforms: openness and consumer protection, technological governance and supervision, and data protection and algorithmic fairness. Each consortium advocates legal theories and international practices that utilise technology for regulation and compliance. Indonesia aims to establish an inclusive, reliable, and civilised digital financial sector through the implementation of fintech lending rules. The nation's competitiveness in the global financial arena ought to enhance. This study advocates for the expansion of digital legislation and paves the way for further research on algorithmic oversight in the financial sector.

Keywords: Fintech lending, Legal protection, Regulation Technology

INTRODUCTION

Advancements in digital technology have radically transformed the framework of financial services. Financial technology (fintech) is the most prominent embodiment of the digital revolution inside the financial industry. Fintech enables a range of financial services that are rapid, efficient, and inclusive, including peer-to-peer lending, often referred to in Indonesia as fintech lending. This platform serves as a direct conduit between lenders and borrowers via an electronic system, eliminating the need for conventional financial institutions like banks as intermediaries. This phenomenon is expanding swiftly and has become a fundamental component of the digital economic ecology, particularly in developing nations like Indonesia.

Indonesia has addressed the evolution of fintech lending with significant regulations, notably Law No. 4 of 2023 regarding the Development and Strengthening of the Financial Sector (P2SK Law), which underscores the necessity for rigorous licensing and oversight of all fintech lending entities. Conversely, Law No. 27 of 2022 about Personal Data Protection (PDP Law) enhances the privacy and data security dimensions for users of digital services. The Financial Services Authority (OJK) promulgated OJK Regulation (POJK) No. 40 of 2024 about Information Technology-Based Joint Funding Services (LPBBTI), which supersedes the prior POJK and provides a more comprehensive framework for the legal, governance, and contractual dimensions of fintech lending activities.

The intricacy of international, digital, and high-risk fintech loan activity presents legal concerns that are inadequately addressed within the national regulatory system. Comparing countries like the United States, the United Kingdom, and China reveals that their regulatory frameworks are better developed in ensuring the protection of borrowers and lenders via a robust, incremental, and principle-driven legal methodology.

In the United States, the Securities and Exchange Commission (SEC) categorises loans provided via fintech lending platforms as securities. Consequently, platforms must register their loan products and provide transparent information to investors to enable clarity and risk reduction. Furthermore, the establishment of the Consumer Financial Protection Bureau (CFPB) guarantees that platforms adhere to consumer protection legislation, including the enforcement of the Fair Debt Collection Practices Act, which forbids deceptive, abusive, or coercive billing tactics.

In the UK, the Financial Conduct Authority (FCA) oversees fintech loans. A primary responsibility under UK law is the segregation of money, which entails the distinction between client funds (lenders) and the operating funds of the operator. This framework mitigates systemic risks and guarantees the security of the lender's money in the event of a platform's bankruptcy. Moreover, each fintech organisation must maintain a continuous business strategy, perform frequent external audits, and provide risk disclosure statements that are comprehensible to the public.

In China, while it ranks among the nations with the most significant growth in fintech lending globally, the government has progressively tightened its controls after a crisis of trust stemming from widespread defaults. The Chinese government has implemented a restructuring and liquidation policy for platforms that do not adhere to transparency and accountability norms, mandating rigorous oversight of digital credit operations by the People's Bank of China and other financial regulatory bodies.

The regulatory environment for fintech financing in Indonesia continues to encounter several legislative deficiencies. Initially, POJK No. 40 of 2024 imposes no legal need for the segregation of lender money from the operator's operating funds. The lack of regulations concerning escrow accounts, fiduciary responsibilities, or segregated accounts poses significant systemic risks in the event of the platform's company collapse or bankruptcy. In contrast to the UK, Indonesia lacks a regulatory framework for the structural protection of lender assets.

Secondly, regarding the enforcement of digital contracts, POJK 40 acknowledges the legitimacy of electronic documents and agreements based on information systems. Nevertheless, no legal mechanism exists to ensure the implementation of the contract's provisions in the event of the organizer's failure. This deficiency is evident in the protracted acknowledgement of Non-Performing Loans (NPLs) and the allocation of fund protection, notwithstanding existing agreements. Countries like the United States mandate the presence of a trustee or impartial third party to oversee the fulfillment of contracts and guarantee compliance with legal obligations.

Third, rules in Indonesia have not rigorously defined the categorisation of risks according to the nature and business model of the platform. Presently, all LPBBTI firms get licenses according to uniform requirements, disregarding the operational risk, borrower base, or risk management capabilities of each firm. This contrasts with the risk-based supervisory model used in several industrialised nations, whereby businesses with elevated risk exposures get more rigorous oversight and stringent liquidity mandates.

The safeguarding of personal data in fintech financing services in Indonesia lacks technical harmonisation between the PDP Law and POJK 40 of 2024. No need was identified for platforms to conduct data protection impact assessments, appoint data protection officers, or publish public reports about data breach occurrences. Personal data becomes the primary asset in the loan algorithm and is susceptible to exploitation by organisers and other parties.

Fifth, regarding dispute resolution processes, POJK designates LAPS as the exclusive alternative settlement venue. Nonetheless, the efficacy of this organisation remains dubious since it has not adequately addressed a range of digital, repetitive, and large-scale issues. In many nations, including Australia and the United Kingdom, AI- and blockchain-driven online dispute resolution (ODR) systems have been established to expedite the mediation and arbitration processes, circumventing conventional and costly litigation venues.

Given this fact, Indonesia needs a more proactive and comprehensive regulatory framework for regulating fintech loans. Administrative norms alone are unable to address the intricacies of cross-jurisdictional and rapid digital transactions. An analysis of the legal frameworks and regulatory systems in the United States, the United

Kingdom, and China indicates that enhancing the protective measures for lenders and borrowers necessitates reforms in legal substance, supervisory structures, and the alignment of sectoral regulations with consumer protection and data privacy principles.

RESEARCH METHOD

This research is a normative legal research because it focuses on the analysis of the legal norms that govern fintech lending practices, especially related to legal protection for borrowers and lenders. Normative law research places law as a system of norms that are used as a reference for behavior, so this approach is relevant to assess the suitability between positive laws and the dynamics of financial technology development. This research aims to examine the substance of the applicable law and formulate normative ideas for the formation of more responsive regulations.

Several approaches are used to support the analysis. The historical approach is used to trace the development of fintech lending legal thinking and regulations over time, to understand the philosophical basis behind the existing regulations. The legislative approach is used to examine norms in various legal instruments, ranging from the 1945 Constitution, the Civil Code, to sectoral regulations such as the Information and Electronic Transactions Law and OJK regulations regarding fintech lending.

The comparative approach is key in seeing how other countries, such as the United States, the United Kingdom, and China, regulate legal protection for borrowers and lenders in the fintech sector. This comparative study helps to identify best practices that can be adapted to the Indonesian context. Meanwhile, a conceptual approach is used to formulate new norms that have not yet been explicitly regulated in national law, particularly related to technological innovation and consumer protection.

Legal materials in this study include primary legal materials (laws and regulations and court decisions), secondary legal materials (literature and journals), and tertiary legal materials (legal dictionaries and other general reference sources). The analysis was carried out prescriptively and descriptive-analytically. Prescriptive analysis aims to formulate normative recommendations based on the value of justice, while descriptive-analytical analysis is used to interpret and examine legal norms through legal reasoning, interpretation, and legal argumentation.

The problems in this study are examined by analyzing the gaps in norms, overlapping rules, and the limitations of legal protection for parties in fintech lending. This research aims to make a conceptual contribution to the development of a fairer, adaptive, and in line with the development of digital technology.

RESULT AND DISCUSSION

Forms, Characteristics, and Socio-Cultural Implications of Fintech Lending Regulations in Indonesia

The regulation of fintech lending in Indonesia is fundamentally carried out by the Financial Services Authority (OJK), which has the regulatory authority and supervision of this activity based on Law Number 21 of 2011 concerning the OJK. Since 2016, the OJK has begun to regulate fintech lending through OJK Regulation Number 77 of 2016 concerning Information Technology-Based Money Lending Services. This regulation is the initial foundation for regulating registration obligations, organizer governance, user protection, and information transparency. In 2022, this regulation will be replaced with POJK Number 10 of 2022, which is more comprehensive, covering aspects of consumer protection, sharia principles, and capital standards.

In 2024, Indonesia will again update fintech lending regulations through Financial Services Authority Regulation (POJK) Number 40 of 2024, which aims to strengthen the legal entity obligations of fintech lending service providers, improve supervision mechanisms, and determine permissible foreign capital ownership limits. This update reflects the government's efforts to bring regulations that are more adaptive to the dynamic and complex development of financial technology. However, some fundamental weaknesses remain inherent in the regulation, especially in the aspects of consumer protection and personal data management that are still not regulated explicitly, in detail, and operationally. This condition risks creating loopholes that can be exploited by fintech lending service providers, especially in the management of sensitive consumer personal data.

One of the crucial issues that arise from this regulation is the provisions on personal data protection, which are still considered to be general and abstract, not explicitly in line with Law Number 27 of 2022 concerning Personal Data Protection. As a result, this fintech lending regulation has not been able to fully accommodate various important provisions contained in the Personal Data Protection Law, such as the obligation to obtain clear and specific written consent, restrictions on the use of personal data, or the obligation of transparency towards personal data management practices carried out by fintech operators. These regulatory weaknesses have the potential to create a high risk of misuse of consumers' data, such as unauthorized dissemination of personal data, identity theft, and exploitation of consumer information for unauthorised commercial purposes.

This rule, apart from addressing personal data privacy, fails to precisely delineate the permissible amounts of loan interest, service fees, and numerous ancillary charges that may be imposed on customers within the principal regulation. The existing regulations on the maximum cap on loan interest and associated fees continue to adhere to the directives established by the Indonesian Joint Funding Fintech Association (AFPI), stipulating a maximum of 0.4% each day, with total cumulative expenses not to surpass 100% of the loan amount. Nonetheless, these recommendations lack the same legal authority as basic rules, rendering their practical application contingent upon the compliance of the organisers, which may not always be uniform. Furthermore, the legislation lacks explicit and definitive legal repercussions or penalties for breaches of the standards. Consequently, borrowers find themselves in a precarious situation due to the limited and confusing legal safeguards, which are mostly contingent upon the internal practices of individual fintech lending platforms.

This issue becomes very tangible in the event of a conflict between borrowers and fintech lending institutions. Numerous instances demonstrate that customers perceive inequity due to opaque fees, exorbitant interest rates, or other ancillary charges that emerge without sufficient clarification from the outset of the loan arrangement. Indeed, in some instances, there has been coercion and the use of unethical billing techniques resulting from the absence of explicit boundaries and stringent penalties for regulatory infractions. Ultimately, these regulatory deficiencies will adversely affect consumer trust in fintech lending platforms and may impede the overall advancement of the fintech sector. In the absence of sufficient and robust consumer protection, the fintech lending sector in Indonesia has the potential for stagnation or a substantial erosion of public confidence.

From a comparative legal standpoint, fintech lending legislation across different nations exhibits varying approaches, however, they demonstrate a higher degree of maturity relative to Indonesia, particularly with legal protections for both borrowers and lenders. In China, fintech lending rules have seen substantial modifications since 2016. This regulation modification is the government's reaction to the many instances of fraud and platform breakdowns that have adversely affected consumers overall. The Chinese government mandates that all fintech lending platforms must complete a registration procedure and get a specific license before lawful operation. Furthermore, China's financial regulators have imposed stringent restrictions on the volume of money that may be extended to individual and institutional borrowers to mitigate the danger of substantial defaults and enhance financial stability. The Chinese government severely forbids the solicitation of public money via fintech platforms for speculative investment, particularly in the highly volatile property industry. These regulations illustrate the government's resolve in safeguarding consumers while preserving the integrity of the local fintech sector.

In the United States, the regulation of fintech lending is well-developed and entails a multi-tiered regulatory framework, including several entities at both the federal and state levels. The Securities and Exchange Commission (SEC) plays a pivotal role by mandating that fintech lending platforms register loan products as securities. This rule offers substantial legal safeguards for lenders by mandating that each fintech lending platform publicly provide comprehensive information about investment risks, borrower creditworthiness, and the financial situation of the operator. Alongside the SEC, the Consumer Financial Protection Bureau (CFPB) plays a significant role in regulating fintech lending activities in the United States. The CFPB enforces stringent federal regulations to safeguard borrowers from unjust and coercive debt collection methods. This protection is achieved by the enforcement of the Fair Debt Collection Practices Act, which forbids abusive collection tactics, intimidation, and unauthorised use of borrowers' information.

In the UK, fintech loan agreements are more transparent due to the active participation of the Financial Conduct Authority (FCA). The FCA enforces stringent consumer protection rules by mandating comprehensive transparency requirements concerning loan product information, credit risk, and the responsibility of fintech platforms to rigorously safeguard customers' cash. A key measure enacted by the FCA is the need to segregate customer cash from the company's operational finances. Under this commitment, in the case of bankruptcy or insolvency of the fintech lending platform, consumer money will be safeguarded and not commingled with the platform's financial liabilities. The FCA mandates that each fintech loan provider maintain a transparent, quantifiable, and sustainable business strategy and undergo frequent independent audits to verify adherence to specified requirements.

The distinct requirements are evident when contrasted with the fintech lending legislation in Indonesia as stipulated in POJK Number 40 of 2024. This new rule, although more progressive than its predecessor, nonetheless fails to provide the same level of protection as the procedures established in China, the United States, or the United Kingdom. In Indonesia, the lack of specific regulation on the segregation of customer funds from those of fintech lending companies in this POJK poses substantial risks in the event of bankruptcy or business collapse of fintech operators. This regulation's inadequacy has been shown by several instances in which borrowers and lenders have incurred significant losses owing to the ambiguous status of the monies they have deposited or invested in fintech lending platforms.

Furthermore, POJK 40 of 2024 fails to delineate explicit sanctions or specialised oversight mechanisms to guarantee the equitable execution of electronic agreements between borrowers and lenders, unlike the United

States, which has instituted numerous stringent regulations to ensure that fintech lending platforms adhere to their contractual obligations comprehensively and justly. Conversely, fintech lending rules in Indonesia are not entirely aligned with the stipulations of Law Number 27 of 2022 about Personal Data Protection, despite the sector's significant susceptibility to the risks of consumer personal data breaches or abuse. In nations like the United Kingdom and the United States, legislation has thoroughly incorporated personal data security into fintech lending frameworks, with stringent data audit protocols and mandatory reporting of data breach incidents.

Consequently, fintech lending regulations in China, the United States, and the United Kingdom are not only adaptive to the evolving fintech landscape but also effectively safeguard consumer interests through a blend of stringent regulations, robust operational oversight, and comprehensive adherence to personal data protection principles. In Indonesia, although the recent POJK represents a commendable advancement, more refining is necessary to ensure legal protection aligns with worldwide best practices.

An analysis of fintech lending legislation in Indonesia compared to that in China, the United States, and the United Kingdom highlights the pressing need to enhance the legal and regulatory framework in Indonesia's fintech lending sector. The more advanced regulatory experience in these nations indicates that consumer protection and personal data risk management are two critical areas that need main focus. Through a comprehensive analysis of these countries' methodologies, Indonesia can derive inspiration and pinpoint exemplary practices to rectify deficiencies in existing national regulations, particularly regarding the transparency of service fees, real-time risk assessment, and the enhancement of law enforcement mechanisms for greater efficacy and consistency.

In China, fintech loan policies have been formulated in reaction to many crises arising from inadequate prior restrictions. This tightening includes stringent licensing, clear prohibitions on loans, and an absolute ban on fundraising operations for speculative investment reasons. These approaches have shown efficacy in alleviating the risks intrinsic to the fintech lending sector, particularly the possibility of widespread default that transpired in the Chinese fintech market a few years before. Simultaneously, the United States, via the Securities and Exchange Commission (SEC) and the Consumer Financial Protection Bureau (CFPB), exemplifies the successful implementation of multi-layered monitoring. The process of registering loan products as securities, along with rigorous enforcement of consumer protection laws, offers substantial security assurances for users of fintech lending services, including both borrowers and lenders.

The UK's proactive Financial Conduct Authority offers a different but successful technique. The FCA requires fintech companies to disclose lending products, interest rates, and service expenses. The UK also requires the explicit separation of consumer money from business operating funds to protect consumer assets in the event of fintech company collapse. Regular independent audits ensure that fintech lending organisations follow personal data protection and fee transparency laws, making the UK fintech industry one of the most renowned worldwide.

Indonesian fintech financing is firmly ingrained in culture and society beyond its legal and regulatory aspects. Borrowing and lending have traditionally relied on family relationships, social trust, and religious notions of fairness and collective accountability.Impersonal, algorithm-driven decision-making on digital platforms changes how people feel about debt and trust. Weak consumer protection exposes low-income populations with inadequate financial literacy to predatory interest rates and coercive collection techniques that violate cultural ideals of compassion and justice in financial dealings. Thus, fintech loan regulation in Indonesia is a cultural intervention that impacts social transformation, necessitating responsive regulations that reconcile normative legal principles with cultural values and social sustainability.

The lack of consumer protection in fintech financing disproportionately impacts marginalised communities with low digital literacy and financial understanding. Predatory interest rates and harsh collection procedures for low-income borrowers violate societal ideals of fairness and compassion in debt interactions. These sociocultural components show that regulation is more than a legal technicality; it impacts how technology mediates social change. Cultural values and community-based procedures must be acknowledged to strengthen the legal framework so digital money promotes inclusive, equitable, and socially sustainable development.

In Indonesia, POJK Number 40 of 2024 does not clearly define or implement cost transparency, risk management, or personal data security. Existing standards fail to protect consumers because they rely on organisers' internal policies and industry groups' suggestions, which are less rigorous than primary legislation. Thus, Indonesia should seriously consider adopting US and UK consumer protection laws to improve fintech lending restrictions. To prevent or significantly minimise company exploitative activity, legislation should require total transparency regarding loan expenses, including interest, administrative fees, and other service charges.

Regulatory reforms should prioritise strict personal data management and protection standards. A comprehensive data audit process, quick disclosure of data breaches to relevant authorities and impacted persons, and severe penalties for personal data security violations can achieve this. To promote consumer access, efficiency, and equity, dispute resolution must be improved. Indonesia might strengthen Alternative Dispute Resolution Institutions (LAPS) by giving them more authority and resources to address fintech loan issues quickly.

Fintech loan regulation in Indonesia should embrace best practices from other nations to foster a robust, imaginative, and secure market for all stakeholders. This reformulation will boost public trust in fintech lending platforms, promote sustainable fintech innovation, and help Indonesia meet international regulatory norms. In Indonesia, a healthy, egalitarian, and sustainable fintech financial environment is not only possible, but likely.

Formulation of Fintech Lending Arrangements for more Optimal in Providing Legal Protection for Borrowers and Lenders through a Comparative Approach

Enhancing legal protection for consumers of information technology-based financing services is an essential need in the context of the Fintech Lending industry's expansion in Indonesia. Despite the significance of Financial Services Authority Regulation Number 40 of 2024 regarding Information Technology-Based Co-Financing Services in regulating this sector, a thorough evaluation reveals persistent normative and institutional deficiencies that impede the efficacy of legal protection for both lenders and borrowers.

POJK Number 40 of 2024 has ambiguous criteria about the separation of lenders' cash from the organisers' operational resources. The absence of an escrow or fiduciary account mechanism in the regulatory framework introduces a susceptibility to moral hazard risk. The legal structure in the UK emphasises the need of financial segregation to reduce the risks of insolvency and money misappropriation, perhaps providing as a model for improvements in Indonesia.

Secondly, POJK Number 40 of 2024 has not thoroughly and mandatorily specified the penalty procedure for defaults by the organizer's platform, especially with delays in the distribution of protection funds for lenders. Article 145 does not impose any administrative or civil penalties on organisers who fail to meet their contractual responsibilities pertaining to electronic agreements.

Fourth, technology-driven oversight has not been completely incorporated into the current regulatory framework. The Financial Services Authority has an OJK Supervision Integrated Data Analytics (OSIDA) system; nevertheless, it has not been effectively used as the primary instrument for real-time supervision in accordance with Regulatory Technology. This hinders the effective early identification of possible infractions, fraud, or systemic threats.

Fifth, there is an absence of a systemic risk reduction mechanism that is either preventive or corrective. No regulations were found regarding compensation mechanisms, lender protection insurance, or licence classifications based on the operator's business risk profile. This leads to uniform regulation of all Fintech Lending providers, regardless of the distinct risks inherent to each platform.

Furthermore, to create a more unified, responsive, and effective regulatory framework, it is imperative to harmonise POJK Number 40 of 2024 with other regulations related to consumer protection and the management of financial services. POJK Number 6 of 2022 and POJK Number 22 of 2023 should fundamentally underpin the development of a more effective fintech complaint system, with specified resolution timescales, measurable administrative sanctions, and a compulsory escalation protocol. Consumer protection should transcend simple proclamation; it must be executed within a framework that is accessible, monitored, and responsible.

Secondly, POJK Number 18 of 2018 about Consumer Complaint Services must be modified to address the challenges presented by digitalisation. Improvements in regulatory substance must include the creation of digital complaint services, transparency in the resolution process, and the effectiveness of follow-up on consumer grievances within the fintech sector.

Third, POJK Number 29 of 2020 concerning the Governance of Finance Companies, which emphasises the principles of Good Corporate Governance, should be expanded to mandate independent annual audits for Fintech Lending providers, as well as the public disclosure of financial statements and loan performance metrics. Promoting accountability is essential to prevent knowledge disparity between the organiser and the service consumer.

Fourth, POJK Number 31 of 2020 on Consumer Services in the Financial Services Sector must be executed with a transparency by design approach, requiring organisers to establish risk management regulations and proactive data disclosures. Transparency in risk management and the use of personal data must be a core element of the legal protection framework.

The fifth point asserts that POJK Number 3 of 2023 about the improvement of financial literacy and inclusion must be properly linked to the need for organisers to provide risk education and mandatory literacy courses for both borrowers and lenders. This encapsulates the concept of prudence and protection for users of technology-based financial services

Further amendments are necessary for Law Number 27 of 2022 on Personal Data Protection. POJK must include regulations about internal security audit responsibilities, a mechanism for reporting data security breach occurrences, and the incorporation of privacy by design principles into the architecture of Fintech Lending digital platforms. Without these resulting technical constraints, the protection of personal data is only a normative discussion without concrete enforcement.

To rectify these many gaps and shortcomings, the improvement of Fintech Lending regulations should concentrate on creating an ideal legal framework based on the Regulation Technology paradigm. This model may be classified into three main categories.

The first cluster concerns consumer protection and transparency. The agreement must delineate the rights and obligations of borrowers and lenders, define rules for exposing loan risks, prohibit disguised interest practices, and ensure the payment of protection money as outlined in the contract.

The second cluster relates to technology governance and supervision. Operators are required to use a real-time monitoring system connected to the OSIDA system, including risk performance metrics that the Financial Services Authority may promptly validate. This seeks to improve the effectiveness of early detection and ongoing monitoring of the organisers.

The third grouping relates to data protection and algorithmic equity. Regulation is crucial for the use of algorithms in risk assessment, ensuring compliance with the principles of equity, non-discrimination, and accountability. The use of artificial intelligence in automated underwriting necessitates rigorous supervision to avert algorithmic bias or data tampering.

Substantive Evaluation of POJK No. 40/POJK.05/2024

An assessment of POJK No. 40/POJK.05/2024 about Information Technology-Based Joint Funding Services (LPBBTI) indicates that this legislation represents a substantial advancement in the governance of the Fintech Lending sector in Indonesia. Nonetheless, certain regulatory flaws need focused effort to guarantee the efficacy of legal safeguards for both borrowers and lenders.

This POJK explicitly requires the separation of the funder's funds from the operator's operational funds by stipulating in Article 1 number 33 that the operator must use a designated checking account for the storage of user funds, ensuring their distinction from the operator's operational funds. Notwithstanding legislative control, the supervision of this mechanism's implementation in the field needs enhancement. In the UK, the Financial Conduct Authority (FCA) implements rigorous regulations for the segregation of client funds, along with direct and periodic supervision, therefore substantially reducing the risk of fund theft in contrast to Indonesia.

Furthermore, POJK No. 40 of 2024 mostly regulates the administrative sanctions specified in Article 9, paragraph (1). Nonetheless, these administrative penalties are extensive and do not specifically address punishments related to defaults by organisers, especially with failures to remit protection payments. Conversely, regulations in the United States, administered by the Consumer Financial Protection Bureau (CFPB), precisely specify the consequences and penalties for fintech businesses that are noncompliant, including defined compensation obligations and fines. Thus, the establishment of a precise protocol regarding defaults is crucial to augment the POJK's ability to protect user interests in Indonesia.

The transparency of loan risk reporting is a significant regulatory shortcoming in POJK No. 40 of 2024. Currently, there is no requirement that compels organisers to regularly and openly provide information related to the 90-day Default Rate (TWP90) or Non-Performing Loan (NPL). International regulations, as shown by the United States' Securities and Exchange Commission (SEC), require fintech companies to provide clear data about their loan performance, therefore aiding service users in making educated investment decisions and reducing risks. The absence of concrete regulations in POJK creates a risk of information asymmetry, thereby eroding public trust.

Furthermore, regarding RegTech-based supervision, POJK No. 40 of 2024 has not entirely used OJK Supervision Integrated Data Analytics (OSIDA). Although the OJK has established a system, the POJK does not possess a definitive mandate for the integration of data systems from the organisers into OSIDA, which is necessary for real-time, technology-driven supervision. This strategy significantly differs from the one used by the National Internet Finance Association of China (NIFA), which employs an extensive data integration system for fintech regulation, thereby efficiently reducing fraud and systemic risks in the fintech industry.

The absence of a conclusive systemic risk protection mechanism, both ex-ante and ex-post, is a significant shortcoming in POJK No. 40 of 2024. Conversely, the UK has implemented a rigorous system via FCA regulation, including contingency planning mandates as ex-ante safeguards and investor compensation funds as ex-post protections during crises or platform insolvencies. In Indonesia, POJK does not provide clear requirements for systemic risk protection, leading to a consistent approach to all Fintech Lending platforms, regardless of their specific risk profiles.

Considering these numerous factors, more amendments to POJK No. 40 of 2024 or the promulgation of more detailed derivative laws are necessary. This revision must encompass stringent regulations governing the oversight of escrow account implementation, explicit penalties for defaults in the disbursement of protection funds, transparency in loan risk reports that are required to be publicly accessible, incorporation of OSIDA-based

supervisory technologies, and clearly defined systemic risk protection mechanisms that can be effectively executed in practice.

Adjustments to Law No. 27 of 2022 concerning Personal Data Protection

The rapid advancement of financial technology over the last decade has compelled regulators globally to implement a responsive, astute, and proactive legislative framework. In Indonesia, a series of Financial Services Authority (POJK) Regulations have been established to address the regulatory requirements of the Fintech Lending sector, including POJK No. 40/POJK.05/2024, POJK No. 6/POJK.07/2022, POJK No. 22/POJK.07/2023, POJK No. 18/POJK.07/2018, POJK No. 29/POJK.05/2020, POJK No. 31/POJK.07/2020, and POJK No. 3/POJK.07/2023. Each POJK significantly contributes to consumer protection, regulatory oversight of organizers, openness of information, and enhancement of literacy. Nonetheless, normative and implementation gaps persist, impeding the efficacy of legal protection in Fintech Lending practices in Indonesia, particularly with money segregation, data security, risk disclosure, and the instructional capabilities of digital platforms.

Although Article 1 number 33 lists the arrangement of escrow accounts and several articles reflect governance (e.g., Article 192), a substantive evaluation of POJK No. 40/POJK.05/2024 reveals that more integrated and real-time supervision is still needed for its implementation in the field. The monitoring technology OSIDA, which stands for OJK Supervision Integrated Data Analytics, has not been used to its full potential. It is now essential for governments and service providers in nations like China to deploy surveillance technologies based on big data and to integrate directly. In a similar vein, investors are unable to adequately manage their financing expectations and risks due to information asymmetry caused by POJK No. 40/2024's lack of precise rules on the disclosure of TWP90 and NPLs. This is harmful to lenders. In contrast to the US, the CFPB and SEC have made it a requirement to publicly publish risk information, and there are severe consequences for failing to do so.

There is no clear indication in POJK No. 40/2024 or any other OJK rules that there has been an effort to reinforce the concept of personal data protection by harmonizing it with Law No. 27 of 2022 about Personal Data Protection. Under the rubric of EU legislation like the General Data Protection Regulation (GDPR), "privacy by design" and "data breach notification" are not only moral ideas, but also legally enforceable requirements. Efforts to incorporate the PDP Law's technological requirements into POJK should focus on establishing mechanisms for reporting data breach incidents, conducting frequent internal security audits, and having privacy management systems verified externally. The national Fintech Lending industry's level of expertise and trust is elevated, and consumer legal protection is bolstered as a result.

As a result of their emphasis on accountability, openness, and fairness, POJK No. 22/POJK.07/2023 and POJK No. 6/POJK.07/2022 significantly fortify the paradigm of consumer protection. However, maintaining uniform enforcement is the primary obstacle. Despite regulations governing the availability of a complaint system, there are still significant obstacles in terms of accessibility, timeliness of processing, and consumer-friendly settlement assurances. While the United Kingdom and the United States have used RegTech to handle and report on complaints using artificial intelligence and big data, Indonesia's system is still manual and not interconnected. A restitutive strategy, similar to that of the Consumer Financial Protection Bureau (CFPB) in the United States, which not only imposes penalties but also directs the recovery of losses to customers directly, is also necessary to enhance the efficacy of administrative sanctions and monitoring.

An essential goal of POJK No. 29/POJK.05/2020 is to fortify the standards of Good Corporate Governance within the financial technology industry. It is critical to address the lack of an annual independent audit requirement right now. External audits are an essential part of any sound financial system; they ensure that the organization's financial and operational statements are reliable. Service users are in a worse negotiating position because they lack a solid knowledge base to assess the risks associated with their engagement, and lenders are not required to submit yearly reports. The independently audited yearly open reporting mandate is a crucial step in establishing accountability and preventing moral hazard behaviors among organizers, following the lead of the US SEC and the UK FCA.

Additionally, POJK No. 31/POJK.07/2020's information service rule must be amended to promote "transparency by design." Customers must have easy access to well-organised, easily digestible information to succeed in today's complex digital economy. All providers must give standard and risk-based product summaries (PDS). Data governance and risk communication policies must be presented before transactions to gradually reorganise personal data handling.

Finally, POJK No. 3/POJK.07/2023 promotes digital financial literacy and inclusiveness. This regulation risks becoming normative if interactive educational courses related to fintech platforms are not mandated. New user onboarding must include digital education. The user must complete this mandatory module to analyse their rights, duties, and risks before completing any transactions. China and UK data show that financial literacy simulation platforms lower default rates and boost consumer satisfaction.

Thus, a design-based regulatory approach must be used to rethink the POJK structure, taking into account not only legal formalities but also protection content, system resilience, and legal balance in the fintech ecosystem. Vertical integration of the PDP Law, sectoral POJK, and OSIDA-based technical monitoring systems is essential. Like the FCA and CFPB, the OJK should automate risk assessments and use big data analytics to modernise regulations. This would boost Indonesia's Fintech Lending industry's worldwide competitiveness and meet borrowers' and lenders' legal protection demands.

Formulation Enhancement

The complex evolution of fintech, which is based on information technology, requires a flexible and proactive legal framework to safeguard consumers, oversee operations, and give legal clarity. Traditional, reactive, and incomplete regulatory procedures no longer work; a RegTech-based legal model is needed. Based on the idea that digital technology growth is disruptive, this strategy alters supervision, legal accountability, and corporate-customer relationships.

Regulation Technology gives a new viewpoint on normative legal standards by combining technology into the formulation, enforcement, and evaluation of regulations. Regulators should use technology to encourage real-time compliance, avoid infractions, and keep fintech businesses more accountable and transparent. Fintech Lending is algorithm-based, involves sensitive personal data, and operates internationally, thus the ideal legal approach must handle regulatory concerns.

The RegTech Approach underpins the new Fintech Lending legal model's three primary clusters. The first cluster, consumer protection and transparency, protects borrowers and lenders. The second cluster, technology governance and supervision, improves system-based supervision infrastructure. The third grouping, data protection and algorithmic justice, examines the ethics and fairness of utilising technology, particularly AI, in financial decision-making. These three organisations must work together to create a fair, adaptable, and sustainable fintech regulatory structure.

Consumer Protection and Transparency Cluster

In Indonesia's Fintech Lending sector, POJK No. 40/POJK.05/2024 is the primary sectoral framework for consumer protection and transparency regulations, and several additional regulations affirm accountability, information disclosure, and legal protection for financial service users. These supplementary guidelines show the necessity for a comprehensive, inter-sustainable legal framework to increase consumer protection and transparency.

Financial Services Sector consumer protection is crucial, as stated in POJK No. 6/POJK.07/2022. Instead, real steps including disclosing accurate information, creating an internal complaint unit, and reporting to the OJK on conflict settlement must be adopted. This guideline requires Fintech Lending platforms to give users all the information they need before they sign a financing contract.

POJK No. 22/POJK.07/2023 strengthens consumer complaint laws. Fintech loan providers must meet service level agreements, appoint competent managing officers, and allow customers to complain online. This solves the inadequate consumer complaint handling procedures that LAPS and traditional dispute resolution have failed to fix.

SEOJK No. 19/SEOJK.07/2023 gives technical instructions for applying transparency, fairness, and client protection to LPBBTI and other financial services. This circular describes the product's pros and cons, how to calculate costs, and customer rights and obligations, which the organiser must follow ethically and administratively. Many borrowers and lenders have complained about fraudulent practices, making this requirement even more important.

POJK No. 31/POJK.07/2020 authorises the OJK to create a public information service system. This system will display licensed organisers, open complaints, and dispute settlement reports. This guideline combines public involvement and government monitoring to regulate Fintech Lending quality. The regulators and user community oversee organisers using this system.

Law No. 4 of 2023, the P2SK Law, which promotes financial sector development and strengthening, gives the OJK stronger legal support to oversee consumer-harming actions. This regulation allows for standardised risk reporting, stronger consumer protection, and stricter rules for data-driven fintech enterprises. This Law can expand the OJK's role in regulating algorithmic behaviour, preserving personal data, and overseeing the automated credit system's fairness within Fintech Lending.

In line with POJK No. 40/POJK.05/2024 and sectoral regulations like POJK No. 6/2022, POJK No. 22/2023, SEOJK No. 19/2023, POJK No. 31/2020, and Law No. 4 of 2023 regarding P2SK, the consumer protection and transparency cluster in Fintech Lending regulations should be built as an integrated legal system

that prioritises consumers. In addition to administrative licensing and reporting requirements, LPBBTI operators must follow substantive and procedural justice to protect lender and borrower rights fairly and long-term.

To build this cluster, security must shift from reactive, post-loss to proactive, participative, and digitally integrated. The regulatory system needs algorithmic monitoring, cost transparency audits, and digital contract feasibility validation to prevent infringement. Participatory complaints and performance publication allow the public to assess the organisers' trustworthiness. Digital integration also shows that platforms, OJK, and independent parties can now communicate data in real time using RegTech and SupTech technologies instead of traditional paperwork for supervision and legal control.

Long-term, reinforcing these clusters supports a civilised, user-rights-based culture in digital financial markets that keeps the financial ecosystem working smoothly. A strong, flexible, and verifiable protection framework is needed to safeguard the financial technology industry's long-term existence in this technological age. The described cross-regulatory arrangements must be united into a single policy framework that includes algorithm justice, penalty enforcement, and information disclosure. Fintech Lending in Indonesia must strengthen this foundation to promote confidence, legal justice, compliance, and economic and technical development.

Technology Governance and Supervision Cluster

The technological governance and supervisory cluster in Fintech Lending prioritises digital financial accountability, transparency, and sustainability. The openness, efficacy, and execution of POJK No. 40/POJK.05/2024's Article 1, Section 33, and related operational provisions managing user fund separation through escrow and virtual accounts are the main concerns. Fund separation restrictions have improved, but they lack a supervisory structure that can predict and respond to breaches, making it tougher to prevent organisers from committing moral risks.

This cluster's major issue is the lack of a dependable monitoring tool to track Fintech Lending platform performance in real time. Even though OJK built OSIDA (OJK Supervision Integrated Data Analytics) as a RegTech and SupTech-based system to monitor financial services sector participants, POJK 40/2024 does not meaningfully integrate OSIDA into LPBBTI. Data-driven oversight is inadequate, therefore organisers' many administrative and major breaches go unnoticed until the public complains or reports them manually. Fintech lending requires analytical and algorithm-based monitoring due to its digital nature. This supervision can automatically and periodically monitor the default ratio (TWP90), user fund flows, contractual breaches, and protection fund irregularities.

This governance design also fails to require independent external auditors to periodically examine user money handling. The complex public-funds financial structure of LPBBTI precludes general-rule audits. Organisers shall report quarterly to the OJK and offer a brief public report on special audits of escrow funds to strengthen social oversight. Public cases like protection money delays and non-transparent defaulted loans show how hard it is to build client confidence without such a mechanism.

POJK 40/2024's institutional architecture does not follow risk differentiation-based supervision used by nations with more mature fintech businesses. Based on risk profiles and transaction volumes, UK micro and large systemic platforms have different reporting, auditing, and fund protection obligations. In Indonesia, all Fintech Lending providers must report and be supervised, regardless of technical skill, money handled, or systemic effects of a platform failure. This uniform monitoring strategy puts too much pressure on young players who need stricter controls and ignores larger organisers who need stricter controls.

Publishing risk performance measures like TWP90, loan status, and hedge fund utilisation is similarly opaque. For transparency, Fintech Lending platforms should be required to display this information on a dashboard. Loan providers utilise risk data for decision-making, but organisers may use it for social control to improve performance and conduct.

Technological guidelines for connecting the organizer's internal supervisory system to the OJK system are not included in POJK 40/2024. Many organisers report event-by-event instead of in real time for speedy remediation. To that aim, the OJK needs rules requiring all operators to develop an interoperable system to track operational data in real time, including low credit rates, late payments, consumer complaint numbers, and dispute resolution speed. This strategy shifts supervision from problem-solving to risk-reduction.

A tech-based supervision system based on initial legal compliance criteria for internal reporting systems is unnecessary. The organisers' fundamental system architecture lacks regulatory audit trail and compliance by design. Fintech organisations are digital and vulnerable to infrastructure security gaps, therefore this information is vital. Thus, continual licensing and monitoring must require auditable digital recording and surveillance systems.

The governance and technology supervision cluster needs technology-based supervision regulations, escrow-specific audit requirements, increased public risk reporting, and operator-risk profile-based supervisory oversight. This rule will strengthen digital financial services monitoring based on dependability, openness, and accountability

rather than administrative statements. This plan will keep the digital financial ecosystem healthy and fair for everyone, in line with current legal notions that view technology as both a topic and a tool for regulation.

Data Protection and Algorithmic Justice Cluster

Data privacy and algorithmic fairness in Fintech Lending reflect the growing importance of regulation in the digital era. This is especially true given the issues surrounding personal data processing and algorithm-based automated assessment systems, which directly affect customers' legal rights. In the Information Technology-Based Joint Funding Service (LPBBTI) ecosystem, loan applications, identification verification, creditworthiness ratings, and lending choices all require personal data gathering, processing, and interpretation. Thus, data protection is a public law issue that includes constitutional privacy and technological justice.

Law No. 27 of 2022 concerning Personal Data Protection (PDP Law), the relevant regulation, requires all data controllers, including fintech operators, to process data in a limited, proportionate manner and with data subject consent. User identities, loan histories, financial facts, metadata regarding digital behaviours, and biometric data are all considered personal data in Fintech Lending. Nevertheless, some LPBBTI platforms continue to employ extensive data aggregation processing methodologies. The objectives of data processing, management of data subjects, and security measures are ambiguous in certain configurations. The PDP Law mandates the lawful handling of personal data, and this may contravene that principle.

Article 15 of the PDP Law imposes limitations on the financial services sector on the prevention of terrorism and money laundering. These exclusions are not comprehensive and do not absolve the organiser of their fundamental obligation to maintain data accuracy, integrity, and security. The OJK, as the regulatory authority for the sector, must verify that sector-specific regulations, such as POJK No. 40/POJK.05/2024, adhere to the data protection standards established by the PDP Law. The POJK has not yet articulated the technical and substantive dimensions of personal data protection, including the imperative to establish a privacy-by-design framework, conduct digital security audits, and inform the public and POJK of data breaches.

Indonesia's Fintech Lending rules have not addressed emerging algorithmic fairness issues. Certain LPBBTI operators employ automated decision-making and big data analytics for credit rating models without disclosing their techniques. Consequently, bias, incorrect evaluations, and violations of proportionality in risk assessment are feasible. In the absence of algorithmic fairness constraints, biassed or static socioeconomic data such as a borrower's address, education, or digital preferences may result in an elevated risk assessment.

Lack of algorithm openness and the "right to explanation" to review automated judgements widen the information gap between organisers and users. A fair judicial framework that follows procedural justice requirements should allow data subjects affected by automated judgements to view the reasoning and file rebuttals for system errors. Digital service providers must explain algorithms to clients and allow them to appeal unfavourable judgements under the General Data Protection Regulation (GDPR) in the EU and other countries. The similar idea is in Indonesia's PDP Law, but no technological mechanisms have been implemented to force LPBBTI to utilise it.

The OJK must establish Fintech Lending platform algorithmic governance rules to boost this cluster. The algorithm should be examined periodically by third parties, the scoring credit model tested for fairness, and regulators notified if the system's outcome is unfair. Platforms should also be required to set legally and technically auditable minimum data security requirements based on data reduction, storage restriction, and purpose limitation.

Clusters focused on algorithmic fairness and data protection in Fintech lending environments need a legal framework to ensure proportionate, non-discriminatory, transparently testable automated decision-making systems and protect data subjects from exploitative data processing practices. This framework protects individual interests and the national digital financial system during the information technology revolution. This makes it trustworthy, inclusive, and civilised.

CONCLUSION

Despite some progress in Fintech Lending regulation in Indonesia thanks to POJK No. 40 of 2024 and other relevant laws, this research shows that there are still certain areas that need substantial improvement in terms of legislation. The originality of this research comes from the extensive comparisons drawn between Indonesian fintech lending restrictions and those of the more developed nations of the US, UK, and China. Findings from this research indicate that the current national regulatory framework does not adequately address issues like the explicit, thorough, and operational segregation of lender funds in escrow accounts, the transparency of credit risk, the supervision of technology based on RegTech, the protection of personal data, and algorithmic fairness. These findings highlight the need to strengthen Indonesia's fintech lending regulations by implementing an adaptive supervisory technology approach, requiring regular loan risk transparency, implementing standards for

independent financial audits, and designing fintech lending service technology with personal data protection and algorithmic fairness in mind. Both lenders and borrowers will be better protected by the law, and the public's faith in Indonesia's fintech lending ecosystem will grow as a result. This study also adds to the body of knowledge by proposing normative ideas for how fintech lending regulations should be drafted to better incorporate digital technology into oversight, enforcement, and real-time risk assessment; this approach is known as Regulation Technology (RegTech).

Opportunities for more investigation into the practical application of tech-based regulatory suggestions in the fintech lending sector are presented by this study for the purpose of future research. The effects of applying algorithmic fairness principles to credit scoring systems on financial inclusion, the efficacy of regulations in lowering the risk of violations, and the creation of a technical model for integrating supervisory data between fintech platforms and regulators are all areas that could use more investigation. To further enhance the global view on fintech loan arrangements, advanced research may broaden the comparative approach to include additional nations with distinct legislative and technical environments. By taking this course of action, Indonesia may establish progressive, inventive, and compassionate regulatory norms that will allow it to compete on an international scale in the fintech lending industry.

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