



# THE URGENCY OF CONSUMER PERSONAL DATA PROTECTION IN INDONESIA'S FINTECH ECOSYSTEM IN THE ERA OF DIGITAL BUSINESS TRANSFORMATION

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## ABSTRACT

The rapid growth of the financial technology (fintech) industry in Indonesia as part of digital business transformation has significantly improved public access to technology-based financial services. However, this development has also increased the risks of data breaches and misuse of consumers' personal information. This study aims to analyze the urgency of personal data protection within Indonesia's fintech ecosystem, evaluate the effectiveness of the existing regulatory framework, and identify strategies to strengthen legal protection in the digital era. The research employs a normative juridical method using statutory and conceptual approaches through literature review of relevant regulations and scholarly works. The findings indicate that although the Personal Data Protection Law provides a solid legal foundation, its implementation still faces challenges, including low compliance among fintech providers, limited public digital literacy, and suboptimal regulatory supervision. Strengthening data governance, enhancing platform accountability, and improving consumer awareness are therefore essential to build a secure and sustainable fintech ecosystem.

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## 1. INTRODUCTION

The digital transformation of business has brought significant changes to both global and national economic structures, including in Indonesia. Advances in information technology have stimulated the emergence of various digital-based financial service innovations known as financial technology (fintech). Fintech enables the public to access financing, investment, and payment services more quickly and efficiently than conventional financial systems. Its presence also contributes to financial inclusion and the growth of the national digital economy, making it an essential component of Indonesia's technology-driven economic development strategy [1], [2].

Despite its substantial benefits, the expansion of fintech also generates legal and information security risks, particularly regarding the protection of consumers' personal data. The use of digital systems requires the collection and processing of large volumes of personal data, which may be subject to misuse if not properly regulated. Data breach incidents across various digital platforms demonstrate that personal data protection has become a critical issue in ensuring transaction security and maintaining public trust in digital financial services [3].

Within the fintech industry, consumers' personal data possesses both economic value and legal risk. Identity information, transaction histories, and user contact data may be utilized for business purposes, yet they remain vulnerable to misuse when security systems are inadequate. Practices of data collection and utilization in technology-based lending services indicate that personal data protection must be integrated into fintech service governance from the system design stage [4]. Other studies show that personal data breaches can reduce consumer trust in fintech services and even affect the stability of the broader digital business ecosystem [5]. Therefore, data protection concerns not only individual privacy rights but also the sustainability of the fintech industry itself.

Indonesia has responded to these developments through the enactment of Law Number 27 of 2022 on Personal Data Protection, which serves as the primary legal framework governing digital information security. This regulation emphasizes the responsibilities of data controllers and the rights of data subjects in the management of personal information. Nevertheless, several studies indicate that the implementation of personal data protection in the fintech sector still faces multiple challenges, including weak corporate compliance, limited supervisory capacity, and suboptimal law enforcement mechanisms [6].

Beyond regulatory aspects, personal data protection is also closely linked to the legal liability of fintech providers. Technology-based lending platforms, for instance, are obliged to ensure the security of their information systems and prevent the misuse of consumer data. In the event of a violation, companies may be held accountable administratively and civilly in accordance with applicable legislation [7]. This demonstrates that data protection is not merely a moral obligation but also a legal duty carrying juridical consequences for fintech business actors.

On the other hand, personal data protection is also influenced by the level of public digital literacy. Limited consumer understanding of data security and the risks associated with digital transactions increases their vulnerability to data exploitation by irresponsible actors. Studies indicate that improving digital literacy can serve as a preventive strategy to reduce the risk of personal data breaches in electronic transactions [8]. Therefore, personal data protection requires a multidimensional approach involving regulation, supervision, technological safeguards, and public education.

Strengthening personal data protection in the fintech sector is also inseparable from the need to build consumer trust in digital services. Information security constitutes a key determinant of public willingness to adopt technology-based financial services. Without adequate guarantees of data protection, consumer trust may decline and potentially hinder the growth of the fintech industry in Indonesia [9]. Consequently, personal data protection can be regarded as a fundamental pillar for establishing a stable and sustainable digital business ecosystem.

A number of studies further emphasize that personal data protection is not solely a matter of technical security but also relates to corporate governance within fintech companies. Compliance with data protection principles must be integrated into corporate risk-management strategies, including the implementation of information-security standards and effective internal oversight mechanisms [10]. This indicates that personal data protection forms an integral component of good corporate governance practices in the digital financial industry.

From the perspective of digital business law, personal data protection is also closely linked to broader consumer protection. Fintech consumers have the right to security, confidentiality, and legal certainty in their use of technology-based financial services. Consumer protection regulations in the fintech sector affirm that service providers are obliged to ensure the security of user data and bear responsibility for losses arising from information-security breaches [11]. Accordingly, personal data protection constitutes an essential element of the consumer-protection framework within the digital economy.

Based on the foregoing discussion, it can be concluded that the protection of consumer personal data represents a strategic issue in the development of Indonesia's fintech industry. Digital business transformation demands a robust legal framework, responsible corporate governance, and heightened public awareness of data security. Accordingly, this study aims to analyze the urgency of consumer personal data protection within Indonesia's fintech ecosystem, evaluate the effectiveness of existing regulations, and formulate strategies to strengthen legal protection in the era of digital business transformation.

## 2. RESEARCH METHODS

This study employs a normative juridical research design, focusing on the analysis of legal norms, principles, and concepts of personal data protection within the financial technology (fintech) ecosystem in Indonesia. The research adopts a statutory approach, a conceptual approach, and an analytical approach to legal policies governing personal data protection in digital financial transactions. The statutory approach is conducted by examining relevant regulations, particularly the Personal Data Protection Law, financial services sector regulations, and consumer protection provisions in digital services. The conceptual approach is used to explore theories of consumer protection, data privacy, and legal responsibility in digital business practices.

The research data consist of primary, secondary, and tertiary legal materials. Primary legal materials include legislation related to personal data protection and fintech regulation. Secondary legal materials comprise scholarly articles, legal journals, and previous research findings relevant to the research topic. Tertiary legal materials

include legal dictionaries, encyclopedias, and supporting documents that assist in understanding data protection concepts within the digital economy. Data collection is carried out through a literature review by identifying and examining relevant academic sources and regulatory frameworks.

The data analysis is conducted qualitatively by interpreting legal norms and relating them to the operational practices of fintech providers in Indonesia. The analysis involves processes of classification, systematization, and legal interpretation in order to obtain a comprehensive understanding of the urgency of personal data protection in the context of digital business transformation. The findings are then presented using a descriptive-analytical method to illustrate regulatory effectiveness, fintech providers' legal responsibilities, and strategies for strengthening personal data protection within Indonesia's digital financial system.

### **3. RESULT AND ANALYSIS**

#### **Forms of Data Breach Risks in Indonesian Fintech**

The rapid growth of fintech services in Indonesia has significantly increased the volume of personal data collected and processed from consumers. In practice, various fintech platforms access users' identity data, contact numbers, financial information, and transaction histories as part of verification procedures and risk assessment processes. However, the high reliance on digital data simultaneously creates vulnerabilities in information security. Such risks may take the form of data leaks resulting from cyberattacks, misuse of data by internal company actors, or excessive data collection practices that are not proportionate to service objectives [21].

Moreover, within technology-based lending services, data breaches frequently occur through the dissemination of users' personal information to third parties without explicit consent. This practice potentially violates fundamental personal data protection principles and may generate both reputational and economic losses for consumers. Empirical studies indicate that fintech data breaches do not only affect individual users but also undermine public trust in the digital financial industry as a whole [5]. Therefore, data breach risks in the fintech sector are multidimensional, encompassing technical, legal, and consumer-trust dimensions.

#### **Effectiveness of Data Protection Regulation**

Indonesia has established a relatively comprehensive legal framework for personal data protection, particularly through Law Number 27 of 2022 on Personal Data Protection. This regulation sets out principles of data controllership, data subject rights, and the obligations of electronic system providers to ensure information security. In the fintech context, the law serves as a legal basis for imposing liability in cases of personal data breaches [7].

Nevertheless, the effectiveness of this regulation continues to face several challenges. A number of studies indicate that the implementation of data protection in the fintech sector remains suboptimal due to weak supervisory mechanisms, limited regulatory capacity, and uneven corporate compliance with information security standards [18]. Furthermore, coordination between personal data protection regulation and digital financial sector regulation still requires strengthening to prevent regulatory gaps in fintech practices (Santoso & Dinata, 2024). From a penal policy perspective, personal data protection in fintech also demands stronger sanction mechanisms and more consistent law enforcement in order to create a deterrent effect for digital business actors that violate consumer data security [22]. Thus, regulatory success depends not only on the existence of legal norms but also on the effectiveness of supervision and enforcement.

#### **FinTech Platform Liability**

FinTech providers bear legal responsibility for ensuring the security of consumers' personal data as part of their broader consumer protection obligations in digital financial services. This responsibility encompasses the duty to maintain data confidentiality, implement adequate technological security systems, and notify users in the event of a data breach. From the perspective of personal data protection law, FinTech platforms function as data controllers and must therefore ensure that data processing is conducted lawfully, transparently, and strictly limited to the purposes of the service [6].

In cases of data security violations, FinTech companies may be held accountable through administrative, civil, or criminal liability in accordance with applicable legal provisions. Studies on data breaches in e-wallet and online lending services indicate that misuse of user data frequently results in economic losses and violations of privacy rights, thereby underscoring the importance of proactive platform responsibility in preventing and mitigating information leaks [23]. This legal responsibility reflects the principle that digital service providers are accountable not only for business operations but also for safeguarding users' privacy rights [24]. Accordingly, personal data protection must be treated as an integral component of risk management and corporate governance within FinTech institutions.

### **Strengthening Model for Digital Data Protection**

Strengthening personal data protection in the fintech sector requires a comprehensive and multidimensional approach. First, from a regulatory perspective, harmonization is needed between personal data protection laws, financial services regulations, and cybersecurity policies to prevent overlaps or legal gaps. Regulatory harmonization will enhance legal certainty and improve the effectiveness of consumer protection in digital transactions [25].

Second, from a technological perspective, the implementation of digital security standards—such as data encryption, multi-factor authentication, and cryptography-based verification systems—can help minimize the risk of data breaches. Technology-driven security innovations have been shown to improve information protection in digital transactions while simultaneously strengthening consumer trust in fintech services [20].

Third, from a social perspective, improving public digital literacy is a crucial factor in reducing the risk of personal data misuse. Consumers who understand their rights and digital security risks tend to be more cautious when sharing personal information on digital platforms [8]. Therefore, personal data protection in fintech should be viewed as a shared responsibility among regulators, industry actors, and digital service users.

## **4. CONCLUSION**

Digital business transformation has accelerated the rapid growth of the financial technology (fintech) industry in Indonesia, while simultaneously increasing the risks of security breaches and misuse of consumers' personal data. The findings of this study indicate that data breach risks in the fintech sector stem not only from technical factors, such as cyberattacks and vulnerabilities in security systems, but also from non-technical issues, including non-transparent data management practices and low levels of public digital literacy. This condition suggests that personal data protection constitutes a strategic issue directly linked to consumer trust, fintech industry stability, and the sustainability of the digital business ecosystem.

The enactment of the Personal Data Protection Law has provided a strong legal foundation for safeguarding consumer information in digital transactions. Nevertheless, regulatory effectiveness continues to face several challenges, including weak compliance among fintech providers, limited regulatory supervision capacity, and suboptimal coordination between financial sector policies and data protection frameworks. Therefore, personal data protection cannot rely solely on normative regulation, but requires strengthened implementation mechanisms and consistent law enforcement.

This study emphasizes that personal data protection within the fintech ecosystem must be pursued through a multidimensional approach, including regulatory harmonization, strengthened corporate governance among fintech providers, the adoption of adaptive digital security technologies, and the enhancement of public digital literacy. In this regard, personal data protection functions not only as a mechanism for safeguarding individual rights, but also as a fundamental pillar for building a secure, inclusive, and sustainable digital financial system in Indonesia.

## 5. REFERENCES

- [1] F. Lim and G. Lie, "Perlindungan Hukum bagi Investor dalam Era Transformasi Digital: Kajian Hukum Bisnis di Indonesia," *Media Huk. Indones.*, vol. 3, no. 4, pp. 93-97, 2025, doi: 10.5281/zenodo.17263115.
- [2] B. Persaulian, "Regulasi Teknologi Finansial (Fintech) Di Indonesia," *Fundam. J. Ilm. Huk.*, vol. 10, no. 2, pp. 167-178, 2021.
- [3] A. Soemitra and A. Adlina, "Perlindungan Konsumen Terhadap Kebocoran Data Pada Jasa Keuangan Di Indonesia," *J. Insitusi Politek. Ganesha Medan Juripol*, vol. 5, no. 1, pp. 288-303, 2022.
- [4] L. Farisha, "Pelindungan Data Pribadi Pengguna Aplikasi Layanan Pendanaan Bersama Berbasis Teknologi Informasi," *J. Pencerah Bangsa*, vol. 4, no. 2, pp. 40-44, 2022.
- [5] A. J. Gonié, C. J. J. G. Goni, and J. M. Korua, "Tinjauan Hukum Kebocoran Data Pribadi Terhadap Kepercayaan Konsumen Di Industri Finansial Teknologi (Fintech)," *Lex Adm. J. Fak. Huk. UNSRAT*, vol. 13, no. 3, pp. 167-186, 2025.
- [6] M. A. E. S. Kusuma and S. Lestari, "Perlindungan Data Pribadi Konsumen Oleh Perusahaan Penyedia Jasa Keuangan Berbasis Teknologi (Fintech) Di Indonesia," *J. Reformasi Huk. Trisakti*, vol. 6, no. 4, pp. 1557-1568, 2024, doi: 10.25105/refor.v6i4.21458.
- [7] M. R. Rustam, "Tanggung Jawab Hukum Platform Fintech Per To Peer Lending Terhadap Penyalahgunaan Data Pribadi Nasabah Berdasarkan Uu No. 27 Tahun 2022 Tentang Perlindungan Data Pribadi," *Iblam Law Rev.*, vol. 5, no. 2, pp. 172-180, 2025, doi: 10.52249/ilr.v5i2.636.
- [8] D. F. Saputra, "Literasi Digital untuk Perlindungan Data Pribadi," *J. Ilmu Kepol.*, vol. 17, no. 3, pp. 1-8, 2023.
- [9] M. A. Santoso and U. Dinata, "Analisis Regulasi Perlindungan Konsumen Dalam Layanan Fintech Di Indonesia," *Andre*, vol. 3, no. 1, pp. 23-32, 2024.
- [10] M. Michelie, T. J. Panjaitan, and S. A. Larasati, "Analisis Kepatuhan Perusahaan Fintech Cermati dalam Perlindungan Data Pribadi Terhadap Konsumen," *Demokr. J. Ris. Ilmu Hukum, Sos. dan Polit.*, vol. 2, no. 1, pp. 163-175, 2025, doi: 10.62383/demokrasi.v2i1.730.
- [11] P. Damayanti, A. M. Sari, and R. A. Ambarwati, "Aspek Hukum Penggunaan Fintech Dalam Industri Perbankan: Guna Meningkatkan Keamanan, Inovasi, Dan Perlindungan Konsumen," *J. Ilm. Penelit. Mhs.*, vol. 2, no. 6, pp. 19-29, 2024, doi: 10.61722/jipm.v2i6.486.
- [12] K. R. A. Suari and I. M. Sarjana, "Menjaga Privasi di Era Digital: Perlindungan Data Pribadi di Indonesia," *J. Anal. Huk.*, vol. 6, no. 1, pp. 132-142, 2023, doi: 10.38043/jah.v6i1.4484.
- [13] K. S. Negara, T. Rusli, and R. A. Hapsari, "Perlindungan Data Konsumen Pengguna Fintech Terhadap Penyalahgunaan Data Baik Sengaja Maupun Tidak Sengaja Terhadap Serangan Hacker Dan Malware (Studi Pada Lembaga Perlindungan Konsumen Di Lampung)," *Binamulia Huk.*, vol. 10, no. 1, pp. 61-68, 2021, doi: 10.37893/jbh.v10i1.246.
- [14] H. S. Disemadi, "Urgensi Regulasi Khusus dan Pemanfaatan Artificial Intelligence dalam Mewujudkan Perlindungan Data Pribadi di Indonesia," *J. Wawasan Yuridika*, vol. 5, no. 2, pp. 177-199, 2021, doi: 10.25072/jwy.v5i2.460.
- [15] G. L. Sihombing, B. Nasution, S. Sunarmi, and M. Siregar, "Perlindungan Konsumen Dalam Pengawasan Perusahaan Berbasis Finacial Technology," *J. Kebijak. Publik*, vol. 12, no. 2, pp. 73-80, 2021, [Online]. Available: <https://jkp.ejournal.unri.ac.id/index.php/JKP/article/view/7956/6814>
- [16] N. P. Wardoyo and R. A. Prastyanti, "Aspek Hukum Perlindungan Data Pribadi Dalam Layanan Perbankan Digital," *Rio Law J.*, vol. 6, no. 2, pp. 859-864, 2025.
- [17] A. Noor and D. Wulandari, "Landasan Konstitusional Perlindungan Data Pribadi Pada Transaksi Fintech Lending di Indonesia," *J. Ilm. Dunia Huk.*, vol. 5, no. 2, pp. 99-110, 2021.
- [18] F. Febrian, I. Y. Saputra, and D. R. W. Napitupulu, "Implikasi Hukum terhadap Perlindungan Data Pribadi dalam Transaksi Fintech," *Rechtsnormen J. Komun. dan Inf. Huk.*, vol. 4, no. 1, pp. 21-30, 2025, doi: 10.56211/rechtsnormen.v4i1.1153.
- [19] A. R. Syifa and R. C. Adam, "Perlindungan Data Pribadi Nasabah Peminjam dalam Layanan Pinjaman Meminjam Berbasis Teknologi Informasi Berdasarkan Hukum Perlindungan Data Pribadi," *UNES Law Rev.*, vol. 7, no. 2, pp. 683-694, 2024, doi: 10.31933/unesrev.v7i2.2352.
- [20] A. Monica, C. Yulianti, and A. Nurintiara, "Upaya Penguatan Hukum Pelindungan Data Pribadi Dalam Keamanan Transaksi Menggunakan Dompot Elektronik Melalui Penerapan Zero-Knowledge Proof," *Padjadjaran Law Rev.*, vol. 13, no. 1, pp. 73-87, 2025, doi: 10.56895/plr.v13i1.2212.
- [21] N. I. Syahrudin and E. A. Zulfa, "Personal Data Protection Violations By Fintech Lending in Indonesia," *J. Law, Polit. Humanit.*, vol. 4, no. 4, pp. 999-1006, 2024, doi: 10.38035/jlph.v4i4.414.
- [22] F. Rifa and M. N. Hidayati, "Kebijakan Penal dalam Perlindungan Data Pribadi Nasabah Fintech Lending di Indonesia," *Binamulia Huk.*, vol. 13, no. 2, pp. 461-481, 2024, doi: 10.37893/jbh.v13i2.964.

- [23] G. Sylviana, D. A. Setiawan, C. Listyani, E. K. Apriyanti, and L. A. P. Putri, "Perlindungan Hukum Data Pengguna E-Wallet Atas Kebocoran Data yang Disalahgunakan Oleh Pinjaman Online," *J. Evid. Law*, vol. 3, no. 3, pp. 340-353, 2024, doi: 10.59066/jel.v3i3.765.
- [24] P. B. W. Medisyana and P. D. Y. Utami, "Perlindungan Hukum Terhadap Penyalahgunaan Data Pribadi Konsumen Pada Platform Pinjaman Dana Berbasis Teknologi Informasi," *J. Kertha Negara*, vol. 13, no. 3, pp. 1554-1564, 2025.
- [25] R. Nugraha, T. Asmara, S. Sanusi, and I. Turyandi, "Legal Analysis of Personal Data Protection In Fintech-Based Financial Transactions," *HERMENEUTIKA*, vol. 10, no. 1, pp. 48-55, 2026, doi: 10.33603/hermeneutika.v10i1.10988.