



## Analysis of Consumer Rights Protection Against the Misuse of Personal Data in Fintech Services

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**Abstract.** The implementation of personal data protection regulations in the Indonesian fintech sector, specifically Law Number 27 of 2022 concerning Personal Data Protection and Financial Services Authority Regulation Number 77 of 2016, shows significant progress in implementing a comprehensive legal framework. This framework adopts international standards such as the General Data Protection Regulation, is supported by the establishment of a Personal Data Protection Agency, and mandates reporting of data breach incidents. However, covering personal data remains a serious threat, resulting in financial losses, psychological distress, and reputational damage for consumers. This highlights the challenges in consistent law enforcement, low digital literacy among the public, and the need for wider implementation of advanced security technologies. To improve legal protection, it is important to strengthen oversight and law enforcement mechanisms, improve digital literacy among the public through continuing education, mandate the implementation of advanced security technologies by fintech providers, and regulate reporting and complaint mechanisms.

**Keywords:** Personal Data Protection, Fintech, Data Breach, Consumer Rights.

**Abstrak.** Penerapan regulasi perlindungan data pribadi di sektor fintech Indonesia, khususnya Undang-Undang Nomor 27 Tahun 2022 tentang Perlindungan Data Pribadi dan Peraturan Otoritas Jasa Keuangan Nomor 77 Tahun 2016, menunjukkan kemajuan yang signifikan dalam penerapan kerangka hukum yang komprehensif. Kerangka kerja ini mengadopsi standar internasional seperti General Data Protection Regulation, didukung oleh pembentukan Badan Perlindungan Data Pribadi, dan mengamankan pelaporan kejadian pelanggaran data. Namun demikian, mencakup data pribadi tetap menjadi ancaman serius, yang mengakibatkan kerugian finansial, tekanan psikologis, dan kerusakan reputasi bagi konsumen. Hal ini menyoroti tantangan dalam penegakan hukum yang konsisten, literasi digital yang rendah di kalangan masyarakat, dan perlunya penerapan teknologi keamanan canggih yang lebih luas. Untuk meningkatkan perlindungan hukum, penting untuk memperkuat mekanisme pengawasan dan penegakan hukum, meningkatkan literasi masyarakat digital melalui pendidikan berkelanjutan, mengamankan penerapan teknologi keamanan canggih oleh penyedia fintech, serta mengatur mekanisme pelaporan dan pengaduan.

**Kata kunci:** Personal Data Protection, Fintech, Data Breach, Consumer Rights.

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## 1. Introduction

The development of financial technology or fintech in Indonesia has achieved very rapid progress in recent years.<sup>1</sup> This is influenced by the increasing need of the community for more accessible, efficient, and flexible financial services. Fintech offers a variety of innovative solutions, ranging from online lending services, digital payment systems, to investments that can be reached by people from various backgrounds.<sup>2</sup> With the presence of fintech, many individuals and small business actors who previously did not have access to traditional financial services can now enjoy these facilities. However, behind the convenience and great benefits offered, this sector faces serious challenges involving the security and protection of users' personal data.<sup>3</sup> Personal data is often a commodity that is vulnerable to misuse, both by internal parties of the company and irresponsible external actors, who exploit security gaps in the fintech system.<sup>4</sup>

Reports from the Financial Services Authority and the Investment Alert Task Force reveal that threats to consumers in the fintech ecosystem are increasing. As of early 2025, the Task Force has blocked more than 11,300 illegal financial entities operating without permits, including 9,610 illegal online lending services.<sup>5</sup> The existence of these illegal entities not only causes financial losses for consumers, but also often involves the misuse of users' personal data for unlawful practices, such

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<sup>1</sup> Fry Anditya Rahayu Putri Rusadi, and Kornelius Benuf, "Fintech peer to peer lending as a financing alternative for the development MSMEs in Indonesia," *Legality: Jurnal Ilmiah Hukum* 28, no. 2 (2020): 234. See also, Billiam Billiam et al., "The urgency of Open Application Programming Interface Standardization in the implementation of open banking to customer data protection for the advancement of Indonesian banking," *Padjadjaran Jurnal Ilmu Hukum* 9, no. 1 (2022): 69.

<sup>2</sup> Rivasya Dinda Syaiful and Heru Sugiyono, "Misuse of Consumer Personal Data Through Illegal Fintech Peer to Peer Lending," *Justisi* 10, no. 1 (2024): 195.

<sup>3</sup> Helena Toshely Sasmita et al., "Analisis Faktor Perlindungan Konsumen Dalam Urgensi Pembentukan Undang-Undang Pinjaman Online (Peer to Peer Lending)," *Media Iuris* 5, no. 1 (2022): 39. See also, Admiral Admiral and Mega Ardina Pauck, "Unveiling the Dark Side of Fintech: Challenges and Breaches in Protecting User Data in Indonesia's Online Loan Services," *Lex Scientia Law Review* 7, no. 2 (2023): 996.

<sup>4</sup> Rani Apriani, "Consumer Personal Data Legal Protection on Illegal Fintech Loans," *Jurnal Meta-Yuridis* 6, no. 1 (2023): 57.

<sup>5</sup> Otoritas Jasa Keuangan, "Satgas Pasti Blokir 507 Aktivitas dan Entitas Keuangan Ilegal Minta Masyarakat Waspada Penipuan yang Semakin Marak," *Otoritas Jasa Keuangan*, June 19, 2025. Retrieved in July 9, 2025 from <https://www.ojk.go.id/id/berita-dan-kegiatan/info-terkini/Pages/Satgas-PASTI-Blokir-507-Aktivitas-dan-Entitas-Kuangan-Ilegal-MintaMasyarakat-Waspada-Penipuan-yang-Semakin-Marak.aspx>. See also, Shintia Rahma Islamiati, "Satgas PASTI Blokir 1.123 Fintech Ilegal dan 209 Investasi Ilegal Per April 2025," *Kontan.co.id*, May 10, 2025. Retrieved in July 21, 2025 from <https://keuangan.kontan.co.id/news/satgas-pasti-blokir-1123-fintech-ilegal-dan-209-investasi-ilegal-per-april-2025>

as aggressive and inhumane debt collection.<sup>6</sup> This phenomenon reflects that although fintech can provide broader and more inclusive access to financial services, this sector is still very vulnerable to practices that are detrimental to consumers, especially related to human rights violations related to privacy.<sup>7</sup>

The results of a survey conducted by the Katadata Insight Center together with the Ministry of Communication and Informatics in 2021 showed that 12.1% of respondents had experienced financial data leaks.<sup>8</sup> Of that number, 36.6% stated that fintech products, especially digital wallets, were the main source of data leaks. These data leaks often result in significant financial losses for consumers, such as balances disappearing without a trace or unauthorized transactions. In this context, digital wallets, which were initially expected to be a safe and convenient payment solution, have instead become one of the weak points that are vulnerable to cyber-attacks.<sup>9</sup> The survey also shows the need to increase consumer awareness of the security risks in using fintech services, as well as strengthening regulations to protect them from evolving threats.<sup>10</sup>

On a global scale, Indonesia is one of the countries with the highest personal data leak rates in the world.<sup>11</sup> Reports from various cybersecurity agencies state that between 2020 and 2024, more than 94 million Indonesians' personal data have been leaked, including data that is then traded on the dark web.<sup>12</sup> The losses due to

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<sup>6</sup> Saifullah Saifullah et al., "The evaluation of the Indonesian fintech law from the perspective of regulatory technology paradigms to mitigate illegal fintech," *Jurisdictie: Jurnal Hukum dan Syaria* 14, no. 2 (2023): 254.

<sup>7</sup> Didik Irawansah et al., "Urgensi Pembentukan Undang-Undang Fintech Di Indonesia: Harapan Dan Realita Di Era Pandemic Covid-19," *Sasi* 27, no. 4 (2021): 536.

<sup>8</sup> Annissa Mutia, "Lembaga atau Produk Keuangan yang Rentan Kebocoran Data (2021)," *databoks*, October 14, 2022. Retrieved in July 13, 2025 from <https://databoks.katadata.co.id/layanan-konsumen-kesehatan/statistik/9e47e8a7538de5d/survei-ini-produk-keuangan-yang-dianggap-rentan-kebocoran-data>.

<sup>9</sup> Mohammad Fadil Imran, "Preventing and Combating Cybercrime in Indonesia," *International Journal of Cyber Criminology* 17, no. 1 (2023): 230. See also, Pushpikiran Singh et al., "Moderating role of digital consumer protection in impacting the intention to use digital financial services," *International Review of Management and Marketing* 14, no. 5 (2024): 235.

<sup>10</sup> Yusuf Daeng et al., "Perlindungan Data Pribadi dalam Era Digital: Tinjauan Terhadap Kerangka Hukum Perlindungan Privasi," *Innovative: Journal of Social Science Research* 3, no. 6 (2023): 2900.

<sup>11</sup> RA Dyah Wahyu Sukmaningsih and Theddeus Erlang Waskitha, "Kebocoran Data Salah Rakyat?," *Binus University Scholl of Information Systems*, March 4, 2025. Retrieved in July 18, 2025 from <https://sis.binus.ac.id/2025/03/04/kebocoran-data-salah-rakyat/>. See also, Kukuh Dwi Kurniawan et al., "Criminal Sanctions and Personal Data Protection in Indonesia," *Lex Publica* 11, no. 2 (2024): 233.

<sup>12</sup> Zakiah Machfir, "300 Juta Data Pribadi Tersebar, Kapan Indonesia Merdeka dari Serangan Siber?," *Goodstats*, July 4, 2024. Retrieved in July 18, 2025 from <https://goodstats.id/article/300-juta-data-pribadi-tersebar-pusat-data-nasional-sementara-pdns-dibobol-kapan-indonesia-merdeka-dari-serangan-siber-5Adzr>.

this data leak not only affect individuals but also create major losses for the country's economy. Cybercriminals often use leaked data to commit fraud, identity theft, and various other crimes.<sup>13</sup> This fact shows that threats to data security are no longer a problem that can be taken lightly, but require serious attention from various parties, including the government, fintech companies, and the public.<sup>14</sup> The practice of misusing personal data in fintech services often involves actions such as excessive and unauthorized use of user contact data, as well as the distribution of information to third parties without consent.<sup>15</sup> Some fintech providers even use debt collection methods that involve intimidation and threats, which not only violate user privacy but also damage their reputation.<sup>16</sup> In some cases, victims even need special protection from institutions such as the Witness and Victim Protection Agency (*Lembaga Perlindungan Saksi dan Korban/LPSK*), which shows how high the risks faced by consumers in the fintech ecosystem are.<sup>17</sup> Such practices not only harm individuals materially but also psychologically, creating great stress on victims.<sup>18</sup> In an effort to address these challenges, the Indonesian government has issued Law Number 27 of 2022 concerning Personal Data Protection (PDP Law).<sup>19</sup> This law provides a clearer legal framework for the

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<sup>13</sup> Intan Audia Priskarini, and Kukuh Tejomurti, "The Role of The Financial Services Authority in The Legal Protection of Privacy Rights in Connection with Personal Data of Fintech Lending Debtor in Indonesia," *Padjadjaran Jurnal Ilmu Hukum* 6, no. 3 (2019): 561.

<sup>14</sup> Kadek Rima Anggen Suari and I. Made Sarjana, "Menjaga privasi di era digital: Perlindungan data pribadi di Indonesia," *Jurnal Analisis Hukum* 6, no. 1 (2023): 140.

<sup>15</sup> Sawitri Yuli Hartati et al., "Sharia fintech in the digital age: Human rights in sharia fintech through criminal law safeguards," *Indonesian Journal of Criminal Law Studies* 8, no. 2 (2023): 289. See also, Billiam et al., "The urgency of Open Application," 74.

<sup>16</sup> Mohammed Ibrahim Al Rezan et al., "User acceptance of terms & conditions and privacy policy: a legal analysis of the position of food delivery mobile apps in the Malaysian context," *UUM Journal of Legal Studies* 16, no. 1 (2025): 134. See also, Priskarini and Tejomurti, "The Role of The Financial Services," 566.

<sup>17</sup> *Republika*, "Kelemahan melindungi data pribadi penduduknya menunjukkan negara lemah melindungi identitas pribadi warganya," *Republika*, September 6, 2021. Retrieved in July 11, 2025 from <https://www.republika.id/posts/20003/lpsk-perbaiki-persoalan-data-pribadi>. See also, Tesa Oktiana Surbakti, "LPSK Nilai Perlindungan Data Pribadi di RI Masih Lemah," *Media Indonesia*, May 9, 2021. Retrieved in July 20, 2025 from <https://mediaindonesia.com/politik-dan-hukum/430515/lpsk-nilaiperlindungan-data-pribadi-di-ri-masih-lemah>.

<sup>18</sup> Muzakkie Shohiban Azkaa and Eka Juarsa, "Perlindungan Hukum Terhadap Penyalahgunaan Data Pribadi Pada Aplikasi Pinjaman Online Ilegal Menurut Undang-Undang No 27 Tahun 2022 Tentang Perlindungan Data Pribadi," In *Bandung Conference Series: Law Studies* 3, no. 2, (2023): 986.

<sup>19</sup> Rina Arum Prastyanti and Ridhima Sharma, "Establishing Consumer Trust Through Data Protection Law as a Competitive Advantage in Indonesia and India," *Journal of Human Rights, Culture and Legal System* 4, no. 2 (2024): 358. See also, Fadia Fitriyanti et al., "Securing personal data in e-kyc: vital for digital economy growth," *Diponegoro Law Review* 9, no. 1 (2024): 105; Singh et al., "Moderating role of digital," 230.

protection of personal data of fintech service users. In addition, Financial Services Authority Regulation Number 77 of 2016 concerning Information Technology-Based Money Lending Services also requires fintech providers to maintain the security of their consumer data.<sup>20</sup> This regulation not only emphasizes the importance of maintaining data confidentiality but also requires companies to report data leak incidents to the authorities.<sup>21</sup> This step is expected to increase transparency and accountability in the fintech sector.<sup>22</sup>

However, even though various regulations have been implemented, challenges in implementation and supervision remain significant issues and require serious attention. One example is the case of a major data leak experienced by PT Fintech Cermati in 2020, where more than 2.9 million customer data was disseminated on the dark web.<sup>23</sup> This incident shows the weak management of data security by several fintech companies, even though regulations related to data protection already exist. This incident is a reminder that regulation alone is not enough without being accompanied by effective supervision, regular evaluation, and the implementation of strict security standards by all fintech service providers.<sup>24</sup> In addition, this incident highlights the importance of implementing the latest security technology and strengthening system audit mechanisms to detect and prevent violations before they occur.<sup>25</sup> The government and regulators also need to increase collaboration with the private sector, including fintech providers and cybersecurity experts, to strengthen data protection and mitigate similar risks in the future.<sup>26</sup> With

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<sup>20</sup> Priskarini and Tejomurti, "The Role of The Financial Services," 570.

<sup>21</sup> Dona Budi Kharisma, "Urgency of financial technology (Fintech) laws in Indonesia," *International Journal of Law and Management* 63, no. 3 (2021): 320.

<sup>22</sup> Moody Rizqy Syailendra et al., "Personal Data Protection Law in Indonesia: Challenges and Opportunities," *Indon. L. Rev* 14, no. 5 (2024): 175.

<sup>23</sup> CNN Indonesia, "2,9 Juta Data Pengguna Cermati.com Diretas," *CNN Indonesia*, November 2, 2020. Retrieved in July 25, 2025 from <https://www.cnnindonesia.com/teknologi/20201102103348-185-564812/29-juta-data-pengguna-cermaticom-diretas>.

<sup>24</sup> Diah Pawestri Maharani et al., "Revisiting personal data: Ownership theories and comparative legal perspectives from Europe, Indonesia and the United States," *Journal of Data Protection & Privacy* 7, no. 3 (2025): 279. See also, Xuan Xi et al., "Consumer data collection strategies in two-sided platforms: The role of data ownership assignment and privacy concerns," *International Journal of Production Economics* 280, no. 23 (2025): 109435; Yong Sun et al., "Cooperative governance mechanisms for personal information security: an evolutionary game approach," *Kybernetes* 54, no. 1 (2025): 435.

<sup>25</sup> Poni Sukaesih Kurniati and Suryanto Suryanto, "The role of the Indonesian government in the era of banking disruption innovation," *Journal of Eastern European and Central Asian Research* 9, no. 1 (2022): 76. See also, Ryan Randy Suryono et al., "Detection of fintech P2P lending issues in Indonesia," *Heliyon* 7, no. 4 (2021): 98; Priskarini and Tejomurti, "The Role of The Financial Services," 572.

<sup>26</sup> Nurhasanah and Indra Rahmatullah, "Financial Technology and the Legal Protection of Personal Data: The Case of Malaysia and Indonesia," *Al-Risalah: Forum Kajian Hukum Dan Sosial*

integrated and comprehensive steps, the fintech ecosystem can become safer, more trustworthy, and in accordance with the expectations of public privacy protection in this digital era.<sup>27</sup>

The losses due to misuse of personal data are not only limited to the financial aspect but also have an impact on broader dimensions, including human rights, such as the right to privacy and security of personal information.<sup>28</sup> This research aims to scientifically assess the effectiveness of Indonesia's legal framework, particularly Law Number 27 of 2022, in preventing consumer data leaks within the fintech sector. The study examines the implementation of personal data protection regulations, identifying enforcement gaps and limitations in public digital literacy that contribute to breaches. It also investigates the legal and socio-economic consequences of personal data misuse on consumer rights. Based on the findings, the research seeks to propose evidence-based strategies to strengthen regulatory mechanisms, enhance consumer awareness, and mandate advanced security measures for more robust fintech consumer protection in Indonesia.

## 2. Methods

This study uses a qualitative approach with a normative legal research type. This approach was chosen to analyze and examine in depth the effectiveness of the implementation of personal data protection regulations, especially Law Number 27 of 2022 concerning Personal Data Protection (PDP Law) and Financial Services Authority Regulation Number 77 of 2016 (*Peraturan Otoritas Jasa Keuangan*/POJK 77/2016), in preventing consumer data leaks in the Indonesian fintech sector. The main data sources for this study are primary legal materials which include laws and regulations related to personal data protection and the fintech sector, as well as secondary legal materials in the form of literature, scientific journals, articles, reports, and publications relevant to the research topic. The analysis was carried out descriptively analytically, namely by presenting the collected data and then analyzing it to find patterns, relationships, and conclusions

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*Kemasyarakatan* 20, no. 2 (2020): 197. See also, Irawati Irawati, "Supervisory Role of The Financial Services Authority in Utilizing Equity Crowdfunding in Indonesia," *Law Reform* 16, no. 1 (2020): 34.

<sup>27</sup> Muhammad Taufiq, "Dispute Resolution in Consumer Protection in the Financial Services Sector Perspective Sadd al-Zari'ah," *Al-Mustashfa: Jurnal Penelitian Hukum Ekonomi Syariah* 10, no. 1 (2025): 87. See also, Souad Ezzerouali et al., "Can Moroccan Law Ensure Substantive Justice in Protecting Private Life from AI's Impact?," *Substantive Justice International Journal of Law* 8, no. 1 (2025): 5; Einat Albin, "The Three-Tier Structural Legal Deficit Undermining the Protection of Employees' Personal Data in the Workplace," *Oxford Journal of Legal Studies* 45, no. 1 (2025): 93.

<sup>28</sup> Priskarini and Tejomurti, "The Role of The Financial Services," 567. See also, Hartati et al., "Sharia fintech in the digital," 290; Budi Kharisma, "Urgency of financial technology," 325.



related to the effectiveness of regulations and their impact on the protection of consumer rights. In addition, this study also identifies various challenges in the implementation of regulations and formulates strategic steps that can be taken to improve legal protection for consumers in the digital era.

### 3. Results and Discussion

#### 3.1. Personal Data Protection Regulations in Fintech Sector in Indonesia

The effectiveness of the implementation of Law Number 27 of 2022 concerning Personal Data Protection (PDP Law) and Financial Services Authority Regulation Number 77 of 2016 (*Peraturan Otoritas Jasa Keuangan/POJK 77/2016*) in the fintech sector can be reviewed from various aspects, including the legal framework that has been prepared for its implementation in practice.<sup>29</sup> The PDP Law is present as a legal basis that establishes the principles of personal data protection, such as transparency in data management, accountability of organizers, and the requirement for explicit consent from data owners before the data is processed.<sup>30</sup> This regulation emphasizes the importance of maintaining confidentiality, integrity, and availability of data throughout the processing cycle, from the collection stage to data destruction.<sup>31</sup> The implementation of these principles is a crucial initial step in building public trust in fintech services, especially since user personal data is a fundamental element in every digital transaction carried out.<sup>32</sup>

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<sup>29</sup> Priskarini and Tejomurti, "The Role of The Financial Services," 556. See also, Prastyanti and Sharma, "Establishing Consumer Trust," 364; Fitriyanti et al., "Securing personal data," 105.

<sup>30</sup> Acep Rohendi and Dona Budi Kharisma, "Personal data protection in fintech: A case study from Indonesia," *Journal of Infrastructure, Policy and Development* 8, no. 7 (2024): 4158.

<sup>31</sup> Yuyut Prayuti, "Evaluation of Legal and Policy Issues in Consumer Protection in Indonesian Fintech Transactions," *Legal Brief* 13, no. 2 (2024): 352.

<sup>32</sup> F. de Elizalde, "Fragmenting consumer law through data protection and digital market regulations: The DMA, the DSA, the GDPR, and EU Consumer Law," *Journal of Consumer Policy* 23, no. 12 (2025): 10. See also, Abdallah Mrindoko Ally, "Artificial intelligence (AI) and financial technology (FinTech) in Tanzania; legal and regulatory issues," *International Journal of Law and Management* 12, no. 2 (2025): 236; Ling An, "Legal Controls on Big Data Price Discrimination for Existing Customers," *International Journal of Digital Crime and Forensics* 17, no. 1 (2025): 19; Dwi Edi Wibowo, "Consumer Protection in the Digital Era: Challenges and Solutions from an Islamic Legal Perspective," *Jurnal Ilmiah Mizani: Wacana Hukum, Ekonomi Dan Keagamaan* 11, no. 2 (2024): 475; Dasep Suryanto and Slamet Riyanto, "Implementasi Undang-Undang Nomor 27 Tahun 2022 tentang Perlindungan Data Pribadi dalam Industri Ritel Tinjauan terhadap Kepatuhan dan Dampaknya pada Konsumen," *Veritas* 10, no. 1 (2024): 125.

In its implementation, the PDP Law not only provides general guidance but also establishes concrete responsibilities for fintech organizers as data controllers.<sup>33</sup> Organizers are required to implement various adequate security measures, including the use of encryption technology to protect data from unauthorized access, as well as limiting access based on needs to reduce the risk of misuse.<sup>34</sup> In addition, they are also required to conduct regular system audits to ensure that system security is maintained and in accordance with applicable standards. This provision is designed to protect consumer data from various potential cyber threats that continue to develop, such as hacking, identity theft, or misuse of data for illegal purposes. With these steps, it is hoped that a safer, more trustworthy fintech environment will be created, and that it can provide a sense of comfort to consumers in using digital services.<sup>35</sup> Moreover, the enforcement of this regulation is also expected to encourage fintech organizers to be more responsible and proactive in managing consumer personal data, including in preparing clear privacy policies and reporting security incidents transparently to authorities and affected users.<sup>36</sup>

The PDP Law also provides a number of rights to consumers to ensure that their personal data protection is more secure.<sup>37</sup> Consumers have the right to access, correct, and delete their personal data, if necessary, thus giving data owners full control over the information they have. These rights not only provide legal certainty but also serve as preventive measures to minimize the potential for data

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<sup>33</sup> Russel Butarbutar, "Personal data protection in P2P lending: What Indonesia should learn from Malaysia?," *Pertanika Journal of Social Sciences and Humanities* 28, no. 3 (2020): 2302. See also, Rusadi, and Benuf, "Fintech peer to peer lending," 236.

<sup>34</sup> Stanisław Barański et al., "Anonymous provision of privacy-sensitive services using blockchain and decentralised storage," *International Journal of Information Security* 24, no. 3 (2025): 130. See also, Ema Turnšek and Suzana Kraljić, "The Protection of Sensitive Personal Data and Privacy in the US and EU with a Focus on Health Data Circulating through Health Apps," *Balkan Social Science Review* 24, no. 24 (2024): 183; Indra Lutrianto and Riswaldi Riswaldi, "Legal Problems of Personal Data Protection in The Digital Era in Personal Data Protection Law in Indonesia," *Greenation International Journal of Law and Social Sciences* 3, no. 2 (2025): 348.

<sup>35</sup> Zlatan Morić et al., "Protection of personal data in the context of e-commerce," *Journal of cybersecurity and privacy* 4, no. 3 (2024): 734. See also, Prastyanti and Sharma, "Establishing Consumer Trust," 356; Singh et al., "Moderating role of digital," 232.

<sup>36</sup> Muhammad Akbar Eka Pradana and Horadin Saragih, "Prinsip Akuntabilitas dalam Undang-Undang Perlindungan Data Pribadi Terhadap GDPR dan Akibat Hukumnya," *Innovative: Journal of Social Science Research* 4, no. 4 (2024): 3419.

<sup>37</sup> Muhammad Deckri Algamar and Abu Bakar Munir, "Managing Indonesian Data Breach Notification in the Financial Services Sector: A Case for One-Stop Notification Model," *Journal of Central Banking Law and Institutions* 3, no. 3 (2024): 549. See also, Maharani et al., "Revisiting personal data," 287.



misuse that can harm consumers.<sup>38</sup> Moreover, this regulation provides space for consumers to actively participate in protecting their privacy, making personal data protection a shared responsibility between consumers and fintech providers. This participation includes consumer awareness of the importance of understanding privacy policies, providing informed consent, and reporting if data misuse occurs. With the rights regulated in detail, the PDP Law not only regulates the technical side but also encourages the creation of a culture of collective awareness of the importance of personal data protection. This is important for building a safer, more trustworthy, and privacy-oriented digital ecosystem in this increasingly connected era.<sup>39</sup>

In this context, POJK 77/2016 complements the PDP Law by providing more specific technical guidance regarding the obligations of fintech providers in protecting customer personal data. This regulation stipulates that consumer data may only be used in accordance with the consent that has been given, with high security standards to prevent unauthorized access. In addition, providers are required to provide notification to customers regarding the purpose of using their data, ensuring transparency in data management. This provision also emphasizes that data may not be misused for the benefit of third parties without explicit permission from consumers. These regulations aim to provide maximum protection to consumers who are often the most vulnerable parties in the fintech ecosystem. With strict regulations, POJK Number 77 of 2016 strengthens the existing legal basis and encourages the creation of public trust in fintech services.<sup>40</sup>

In terms of implementation, the PDP Law is strengthened by the issuance of various implementing regulations designed to regulate the technical and administrative mechanisms of its implementation. With this regulation, the

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<sup>38</sup> Al Sentot Sudarwanto and Dona Budi Budi Kharisma, "Comparative study of personal data protection regulations in Indonesia, Hong Kong and Malaysia," *Journal of Financial Crime* 29, no. 4 (2022): 1449.

<sup>39</sup> Ananta Fadli Sutarli and Shelly Kurniawan, "Peranan Pemerintah Melalui Undang-Undang Perlindungan Data Pribadi dalam Menanggulangi Phising di Indonesia," *Innovative: Journal of Social Science Research* 3, no. 2 (2023): 4216. See also, Ari Wibowo et al., "The importance of personal data protection in Indonesia's economic development," *Cogent Social Sciences* 10, no. 1 (2024): 2306751; Camila Amalia et al., "Legal Issues of Personal Data Protection and Consumer Protection in Open Api Payments," *Journal of Central Banking Law and Institutions* 1, no. 2 (2022): 325; Dian Purnama Anugerah and Masitoh Indriani, "Data Protection in financial technology services: Indonesian legal perspective," In *IOP Conference Series: Earth and Environmental Science* 175, no. 1 (2018): 1236; Hartati et al., "Sharia fintech in the digital," 294; Nurhasanah and Rahmatullah, "Financial Technology and Legal," 208; Fitriyanti et al., "Securing personal data," 108; Sudarwanto and Kharisma, "Comparative study of personal data," 1452.

<sup>40</sup> Akobiarek Suzette Hattinghet al., "Sanksi bagi Penyelenggara Pinjaman Daring Legal yang Tidak Mematuhi Peraturan Otoritas Jasa Keuangan," *Jaksa: Jurnal Kajian Ilmu Hukum dan Politik* 3, no. 2 (2025): 10. See also, Shohiban Azkaa and Juarsa, "Perlindungan Hukum Terhadap Penyalahgunaan Data," 989.

government not only ensures legal certainty for consumers but also increases the awareness and compliance of service providers with their responsibilities in maintaining the confidentiality, integrity, and availability of personal data in this challenging digital era.<sup>41</sup> With these steps, the Personal Data Protection Law (PDP Law) and POJK Number 77 of 2016, together with its implementing regulations, create a strong synergy in protecting consumers' personal data. This approach not only strengthens public trust in fintech services but also supports the growth of a responsible and sustainable digital financial sector.<sup>42</sup>

### 3.2. The Role of Regulatory Bodies and Sanctions

The Personal Data Protection Law (PDP Law) mandates the creation of a specialized institution responsible for safeguarding personal data. To ensure compliance, the government must establish a dedicated Personal Data Protection Agency with the authority to oversee the implementation of data protection regulations across various sectors, including fintech. This institution is responsible for providing technical guidance to service providers, conducting compliance audits, and imposing sanctions on detected violations. The institution's function is not only as a supervisor, but also as a mediator in disputes involving consumers and service providers related to personal data violations. The presence of the institution will provide certainty that existing regulations are not just written rules but also have effective monitoring and enforcement mechanisms. With this role, the institution helps create a safer and more trusted fintech ecosystem, where consumer rights can be well protected.<sup>43</sup>

The obligation of fintech providers to prepare transparent privacy policies is one of the main pillars in the implementation of data protection regulations. This privacy policy must be designed in clear, concise, and easily understood language by consumers so as not to cause confusion or misunderstanding that can harm the user. The policy must include detailed information on how consumers' personal data will be used, stored, processed, and deleted, as well as the security measures implemented to protect data from the risk of misuse or leakage. Furthermore, the

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<sup>41</sup> Wibowo, "Consumer Protection in Digital," 479. See also, Xi et al., "Consumer data collection," 109440; Sun et al., "Cooperative governance mechanisms," 441; Albin, "The Three-Tier Structural," 98; de Elizalde, "Fragmenting consumer law," 14; Ally, "Artificial intelligence (AI)," 233; An, "Legal Controls on Big Data," 20.

<sup>42</sup> Morić et al., "Protection of personal data," 736. See also, Prastyanti and Sharma, "Establishing Consumer Trust," 358; Fitriyanti et al., "Securing personal data," 108; Wibowo et al., "The importance of personal data," 2306752; Sudarwanto and Kharisma, "Comparative study of personal data," 1456; Hartati et al., "Sharia fintech in the digital," 291; Nurhasanah and Rahmatullah, "Financial Technology and Legal," 209.

<sup>43</sup> Danil Erlangga Mahameru et al., "Implementasi UU perlindungan data pribadi terhadap keamanan informasi identitas di Indonesia," *Jurnal Esensi Hukum* 5, no. 2 (2023): 123. See also, Hattinghet al., "Sanksi bagi Penyelenggara," 13.

privacy policy must include consumer rights, including the right to withdraw previously given consent, request access to their data, object to certain processing, or even request deletion of their data if deemed necessary. With this clarity, consumers have the opportunity to fully understand the implications of providing their data. Transparency in this policy also includes the delivery of procedures that are easily accessible to consumers if they wish to follow up on these rights, such as the process for submitting requests or complaints.<sup>44</sup> This step not only provides a sense of security in using fintech services but also allows consumers to make more informed decisions that are in accordance with their preferences and needs.

The establishment of a dedicated institution and the obligation to prepare a privacy policy reflect the government's serious efforts to integrate data protection principles into fintech operational practices. With the institution, fintech service providers are encouraged to run their operations more responsibly, while consumers get stronger space to protect their rights. On the other hand, a transparent privacy policy also increases consumer trust in the services they use. This combination of strict supervision and information transparency is an important step in creating a sustainable fintech ecosystem, where personal data protection is a top priority for all parties involved.<sup>45</sup>

Explicit consent from consumers is a crucial element in the protection of personal data as regulated in Law Number 27 of 2022 concerning Personal Data Protection (PDP Law). This regulation clearly states that consumer consent must be given voluntarily, without any coercion or pressure from any party. This consent must also be based on complete and adequate information, so that consumers have a clear understanding of the purpose of data collection, how it is used, and the parties who will access the data. In the fintech ecosystem, this explicit consent becomes very significant because consumers' personal data is often the main basis for various activities, such as transaction processing, offering financial products, or risk analysis to assess creditworthiness.<sup>46</sup> By ensuring that consumers provide consent based on adequate information, this regulation not only gives them greater

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<sup>44</sup> Faiz Rahman, "Safeguarding Personal Data in the Public Sector: Unveiling the Impact of the New Personal Data Protection Act in Indonesia," *UUM Journal of Legal Studies* 16, no. 1 (2025): 5. See also, Morić et al., "Protection of personal data," 741; Prastyanti and Sharma, "Establishing Consumer Trust," 367; Fitriyanti et al., "Securing personal data," 104; Kharisma, "Urgency of financial technology," 331; Irawati, "Supervisory Role of The Financial," 37.

<sup>45</sup> Mar'atus Solikhah, "Personal Data Protection in the Era of Digital Transformation: Challenges and Solutions in the Indonesian Cyber Law Framework," *Indonesian Cyber Law Review* 2, no. 1 (2025): 6. See also, Suari and Sarjana, "Menjaga privasi di era digital," 145; Sun et al., "Cooperative governance mechanisms," 451; Albin, "The Three-Tier Structural," 100; de Elizalde, "Fragmenting consumer law," 19.

<sup>46</sup> Muhamad Alfat Fauzie, "Securing the Future: Indonesia Personal Data Protection Law and It's Implication for Internet of Things (IoT) Data Privacy," *Srinwijaya Crimen and Legal Studies* 2, no. 1 (2024): 19.

control over their personal data but also creates a sense of security and trust in the services used. This step is an important pillar in building a transparent and responsible relationship between consumers and fintech organizers, so that the ecosystem can develop while still upholding privacy and consumer rights.<sup>47</sup>

The role of the Financial Services Authority (*Otoritas Jasa Keuangan*/OJK) in supporting the implementation of personal data protection is also no less important and covers various strategic aspects. OJK carries out its supervisory function through the market conduct supervision mechanism, which involves routine inspections of fintech providers to ensure their compliance with the PDP Law. These inspections include evaluation of data management procedures, system security, and the implementation of privacy policies that meet standards. In addition to inspections, OJK also plays a role in investigating reports of alleged violations submitted by consumers or other parties, ensuring transparent and fair follow-up. Moreover, OJK also actively provides education to the public about the importance of personal data protection, from how to recognize cyber threats to steps to protect consumer rights in the digital era.<sup>48</sup> This education is delivered through various media, including public campaigns, seminars, and digital platforms, with the aim of increasing public literacy on data protection issues. This effort not only aims to create broad awareness of the importance of data security but also encourage fintech providers to be more responsible in managing personal data, so that a safe, transparent, and trusted digital ecosystem is created.<sup>49</sup>

If violations of personal data protection provisions are found, OJK has the authority to impose strict administrative sanctions on the perpetrators. These sanctions can be in the form of significant financial fines, temporary suspension of service provider operations, or revocation of business licenses for serious violations. This step aims to create a deterrent effect while increasing industry players' compliance with applicable regulations.<sup>50</sup> The existence of this law enforcement mechanism shows that personal data protection regulations are not just normative rules, but also have real and effective coercive power in protecting

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<sup>47</sup> Kurniawan et al., "Criminal Sanctions and Personal Data," 235.

<sup>48</sup> Morić et al., "Protection of personal data," 738. See also, Prastyanti and Sharma, "Establishing Consumer Trust," 359; Fitriyanti et al., "Securing personal data," 109; Wibowo et al., "The importance of personal data," 2306755.

<sup>49</sup> Rizqika Farah Isnugraheny et al., "Optimalisasi Prinsip Kerahasiaan Data Nasabah dan Peranan Otoritas Jasa Keuangan Dalam Mencegah Kebocoran Informasi," *Media Hukum Indonesia* 2, no. 4 (2024): 122.

<sup>50</sup> Sidi Ahyar Wiraguna et al., "Implementation of Consumer Personal Data Protection in Ecommerce from the Perspective of Law No. 27 of 2022," *Journal of World Science* 3, no. 3 (2024): 414.

consumers.<sup>51</sup> In addition to providing assurance to the public that their personal data is treated seriously by the government and fintech service providers, this mechanism also encourages transparency and accountability in data management. Thus, consumers can feel safer in using digital services, while fintech providers are encouraged to continue to improve their security standards.<sup>52</sup> This not only strengthens public trust in fintech services but also supports the creation of a more responsible, transparent, and sustainable digital ecosystem.<sup>53</sup>

Normatively, personal data protection regulations in Indonesia have adopted international standards, including the General Data Protection Regulation (GDPR) applicable in the European Union. This adoption is reflected in Law Number 27 of 2022 concerning Personal Data Protection (PDP Law) and Financial Services Authority Regulation Number 77 of 2016 (*Peraturan Otoritas Jasa Keuangan /POJK 77/2016*), which together form a strong legal framework to protect consumers' personal data. These regulations include technical, administrative arrangements, and relevant law enforcement mechanisms, providing comprehensive protection for consumers and ensuring that service providers are responsible for data management. This approach not only provides legal protection, but also sets standards that allow Indonesia to compete globally in data management and fintech services.

Adopting international standards such as GDPR also reflects the seriousness of the Indonesian government in placing data protection as a top priority, in line with world best practices<sup>54</sup>. This step aims to increase consumer confidence in the security of fintech services, while attracting more investors by providing assurance that their data is managed in accordance with global standards. In addition, this regulation plays an important role in supporting safe innovation in the fintech

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<sup>51</sup> Nanik Prasetyoningsih et al., "Legal Protection for the Personal Data in Indonesia and Malaysia," In *International Conference on Human-Computer Interaction* (Cham: Springer Nature Switzerland, June 10, 2024), 165.

<sup>52</sup> de Elizalde, "Fragmenting consumer law," 19. See also, Isnugraheny et al., "Optimalisasi Prinsip Kerahasiaan," 125.

<sup>53</sup> Afif Noor et al., "Maslahah-Based Protection of Fund Recipients in Fintech Lending Through Empowerment and Justice," *El-Mashlahab* 15, no. 1 (2025): 10. See also, Barański et al., "Anonymous provision of privacy," 134; Morić et al., "Protection of personal data," 739; Wibowo et al., "The importance of personal data," 2306752; Muhammad Maleno and Andriana Kusumawati, "Comparative Analysis of Indonesia's Personal Data Protection Law with the European Union and California Regulations to Identify Best Practices in Protecting Public Privacy Rights," *Indonesia Law College Association Law Journal* 3, no. 2 (2024): 95.

<sup>54</sup> Rista Maharani and Andria Luhur Prakoso, "Perlindungan Data Pribadi Konsumen Oleh Penyelenggara Sistem Elektronik Dalam Transaksi Digital," *Jurnal USM Law Review* 7, no. 1 (2024): 337. See also, Sungjin Lim and Junhyoung Oh, "Navigating Privacy: A Global Comparative Analysis of Data Protection Laws," *IET Information Security* 20, no. 1 (2025): 5536763; Algamar and Munir, "Managing Indonesian Data Breach," 559; Morić et al., "Protection of personal data," 741; Barański et al., "Anonymous provision of privacy," 135; de Elizalde, "Fragmenting consumer law," 21.

sector, creating a conducive environment for sustainable technological growth. Thus, strengthening data protection regulations not only serves as a legal tool, but also as a digital economic development strategy that is in line with global technological developments.<sup>55</sup>

In its implementation, this regulation stipulates an obligation for fintech organizers to report data leak incidents within 3x24 hours since the incident occurred. This provision is designed to provide sufficient time for authorities to take the necessary mitigation steps, such as identifying the source of the leak, closing security gaps, and preventing potential further losses to consumers. In addition, this incident report also functions as a communication tool that allows consumers to take proactive preventive steps, such as blocking vulnerable accounts or updating their security information. With the obligation to report quickly and transparently, fintech organizers are encouraged to be more careful and responsible in managing consumers' personal data, including improving their security systems to prevent similar incidents from recurring. This step not only reflects the government's concern for consumer protection but also confirms its commitment to maintaining public trust in the ever-growing fintech sector. This regulation also shows that personal data protection is a key element in creating a safe, trusted, and sustainable digital ecosystem.<sup>56</sup>

Imposing strict sanctions on fintech providers who violate personal data protection rules is also an important part of implementing this regulation. Sanctions can include financial fines, temporary suspension of operations, and even revocation of business licenses for serious violations. This approach aims to create a deterrent effect and ensure that fintech providers comply with established data protection standards. For example, providers who are proven to be negligent in maintaining customer data will face clear legal consequences. With an effective law enforcement mechanism, the government not only protects consumer rights but also maintains the reputation of the fintech sector as a reliable modern financial service.<sup>57</sup>

This regulation also stipulates the obligation for fintech providers to prepare a privacy policy that is transparent, comprehensive, and easy for consumers to understand. The privacy policy must include a detailed explanation of how personal

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<sup>55</sup> M. Usman Baraja et al., "Implementation and Supervision of Personal Data Protection Law on Online Platforms," *Journal of Social Science Studies* 3, no. 1 (2023): 105.

<sup>56</sup> Sereni M. Sinaga et al., "Legal Analysis of Consumer Protection in E-Commerce Transactions in Indonesia Post Personal Data Protection Law," *Paralegal International of Journal* 1, no. 1 (2025): 7.

<sup>57</sup> Elvira Fitriyani Pakpahan et al., "Perlindungan Hukum Terhadap Data Pribadi Dalam Industri Financial Technology," *Veritas et Justitia* 6, no. 2 (2020): 311. See also, Amalia et al., "Legal Issues of Personal Data," 329; Sasmita et al., "Analisis Faktor Perlindungan Konsumen," 40; Singh et al., "Moderating role of digital," 224; Fitriyanti et al., "Securing personal data," 110.



data will be collected, stored, used, and deleted, so as to provide consumers with a clear picture of the flow of their data management.<sup>58</sup> In addition, providers are required to ensure that data is only used in accordance with consumer consent, meaning that any use of data outside of what has been agreed upon requires additional consent from the consumer.<sup>59</sup> This policy must also include security measures taken to protect data from the risk of leakage or misuse, as well as information regarding consumer rights, such as the right to access, correct, or delete their data. With a well-designed privacy policy, consumers can not only understand their rights but also feel more confident and secure in using fintech services.<sup>60</sup> This provision not only strengthens consumer protection but also encourages greater trust in fintech providers as responsible, transparent, and committed entities in managing personal data amidst the rapid development of digital technology.<sup>61</sup>

The regulation of personal data protection in the fintech sector in Indonesia provides a strong legal basis to protect consumers from various potential risks associated with the management of personal data. By adopting international standards such as GDPR, this regulation ensures that consumer data protection in Indonesia is on par with global best practices. A fast-reporting mechanism allows consumers to immediately report incidents of violations, while imposing strict sanctions on violators creates a deterrent effect and strengthens compliance with the regulation.<sup>62</sup> In addition, a transparent privacy policy is an important element to provide clear information to consumers about how their data is managed, processed, and protected.<sup>63</sup> Supervision carried out by the BPDP ensures that this regulation is implemented consistently in the field, creating more effective protection. These steps not only increase public trust in fintech services but also

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<sup>58</sup> Miftahul Jannah et al., "Personal Data Protection in Telemedicine: Comparison of Indonesian and European Union Law," *Journal of Law and Policy Transformation* 8, no. 2 (2023): 45.

<sup>59</sup> Elza Aulia, "Analisis Pasal 56 dalam Undang-Undang Nomor 27 Tahun 2022 Tentang Pelindungan Data Pribadi dari Perspektif Kepastian Hukum," *UNES Law Review* 7, no. 1 (2024): 224. See also, Priskarini and Tejomurti, "The Role of The Financial Services," 561.

<sup>60</sup> Naswa Fiolla Anggraini and Sidi Ahyar Wiraguna, "Tanggung jawab hukum platform pinjaman online terhadap penyalahgunaan dan penyebaran data pribadi konsumen secara illegal," *RISOMA: Jurnal Riset Sosial Humaniora dan Pendidikan* 3, no. 3 (2025): 151.

<sup>61</sup> Suresh Kumar, "Assessing the Impact of Indonesia's Personal Data Protection Law on E-commerce Consumer Rights," *Problematika Hukum* 10, no. 2 (2024): 125.

<sup>62</sup> Arnanda Yusliwidaka et al., "A Discourse of Personal Data Protection: How Indonesia Responsible under Domestic and International Law?," *Pandecta Research Law Journal* 19, no. 2 (2024): 183.

<sup>63</sup> Raphael Haganta, "Legal Protection of Personal Data as Privacy Rights of E-Commerce Consumers Amid the Covid-19 Pandemic," *Lex Scientia Law Review* 4, no. 2 (2020): 84. See also, Barański et al., "Anonymous provision of privacy," 134; Ezzerouali et al., "Can Moroccan Law Ensure," 8; Maharani et al., "Revisiting personal data," 282; Xi et al., "Consumer data collection," 109444.

encourage responsible and sustainable financial innovation. Success in building a safe, transparent, and trusted fintech ecosystem depends heavily on close collaboration between the government, regulators, service providers, and consumers, so that all parties can contribute to creating a safer and more inclusive digital environment.<sup>64</sup>

### 3.3. Financial and Psychological Impacts of Data Misuse

Misuse of personal data in fintech services has a very significant impact on various aspects of consumer life, especially on the right to privacy, security, and protection from financial loss.<sup>65</sup> When personal data is leaked or misused, irresponsible parties can easily use it for various criminal purposes. One case that often occurs is the application for an unauthorized loan using the victim's data. After that, the victim is often faced with aggressive collection from the financial service provider, even though they never applied for the loan. This condition not only causes psychological pressure but also creates significant material losses for the victim.<sup>66</sup> Identity theft is a serious threat in the fintech ecosystem.<sup>67</sup> Criminals can use personal data to fake someone's identity, allowing them to carry out illegal activities in the victim's name. The impact is not only limited to the loss of privacy, but also involves major material losses and damage to the victim's reputation.<sup>68</sup> In addition, the process of restoring identity and proving that the victim was not involved in the illegal act often takes a long time and costs a lot of money. As a result, consumers not only suffer financially but also face drastic changes in their lives that are difficult to overcome without adequate legal support and data protection policies.<sup>69</sup>

Financial impact is one of the most obvious forms of harm from the misuse of personal data in the fintech sector, with consequences that are often devastating to the economic stability of victims. Many consumers find themselves trapped in

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<sup>64</sup> Filal Khair and Sidi Ahyar Wiraguna, "Data Protection Impact Assessment (DPIA) sebagai Instrumen Kunci Menjamin Kepatuhan UU PDP 2022 di Indonesia," *Politika Progresif: Jurnal Hukum, Politik dan Humaniora* 2, no. 2 (2025): 249.

<sup>65</sup> Syaiful and Sugiyono, "Misuse of Consumer Personal," 197. See also, Billiam et al., "The urgency of Open Application," 76; Apriani, "Consumer Personal Data," 59; Suryono et al., "Detection of fintech P2P," 99.

<sup>66</sup> James Taylor et al., "Privacy essentials," *Electronics* 13, no. 12 (2024): 2275.

<sup>67</sup> Dennis Gibson and Clive Harfield, "Amplifying victim vulnerability: Unanticipated harm and consequence in data breach notification policy," *International Review of Victimology* 29, no. 3 (2023): 355.

<sup>68</sup> Ilenia Confente et al., "Effects of data breaches from user-generated content: A corporate reputation analysis," *European Management Journal* 37, no. 4 (2019): 498.

<sup>69</sup> Fuad Fuad et al., "Desain perlindungan hukum bagi konsumen dan data pribadi untuk kegiatan usaha menggunakan fintech di Indonesia," *Jurnal Rectum: Tinjauan Yuridis Penanganan Tindak Pidana* 7, no. 1 (2025): 180.

debts they never applied for, complete with high interest rates and increasing fines.<sup>70</sup> This situation not only creates severe economic stress, but is also exacerbated by aggressive collection practices from irresponsible service providers, where intimidation and threats are often used as a tool to pressure victims to pay debts, they are not responsible for. In some cases, victims even experience verbal abuse or physical threats that add to their suffering.<sup>71</sup> The material losses experienced not only affect their financial condition directly, but also add to the economic burden that is difficult to resolve in a short time, especially for those who are already in a fragile financial condition. This shows that the misuse of personal data in the fintech sector not only has legal and privacy impacts, but also creates significant economic losses, with a domino effect that worsens the overall situation of victims.<sup>72</sup>

In addition to material losses, the psychological distress experienced by victims is a serious problem that often has a long-term impact on their lives.<sup>73</sup> Continuous harassment from debt collectors, especially when victims are subjected to aggressive debt collection for debts that are not their responsibility, creates severe emotional distress. In addition, the loss of a sense of security due to personal data leaks often triggers prolonged stress, anxiety, and even trauma, which significantly affects the mental well-being of victims. This psychological impact is not only felt individually but also spreads to their personal lives, with many victims reporting disruptions in family relationships due to conflicts or tensions that arise from this situation. In addition, their social interactions tend to be more limited due to feelings of shame, discomfort, or stigma that continue to haunt them.<sup>74</sup> They often feel shunned or less accepted in their social environment, which further worsens their mental condition. This situation shows that the misuse of personal data has a very broad impact, not only in economic aspects, but also on the psychological and

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<sup>70</sup> Rohendi and Kharisma, "Personal data protection," 4168. See also, Syailendra et al., "Personal Data Protection Law," 178; Taufiq, "Dispute Resolution in Consumer," 89; Prayuti, "Evaluation of Legal," 357.

<sup>71</sup> Meng Wang et al., "Identifying personal physiological data risks to the Internet of Everything: the case of facial data breach risks," *Humanities and Social Sciences Communications* 10, no. 1 (2023): 7.

<sup>72</sup> Cassandra Cross and Thomas J. Holt, "Beyond fraud and identity theft: assessing the impact of data breaches on individual victims," *Journal of Crime and Justice* 48, no. 3 (2025): 14.

<sup>73</sup> Christopher R. Sears and Daniel R. Cunningham, "Individual differences in psychological stress associated with data breach experiences," *Journal of Cybersecurity and Privacy* 4, no. 3 (2024): 604.

<sup>74</sup> Liangshun Wu, "Data Security and Privacy Considerations in Mental Health Settings," In *Chatbots and Mental Healthcare in Psychology and Psychiatry* (Pennsylvania: IGI Global Scientific Publishing, 2025): 246. See also, Cross and Holt, "Beyond fraud and identity theft," 20; Sears and Cunningham, "Individual differences in psychological," 609.

social aspects of victims, creating a circle of problems that are difficult to overcome without adequate legal, social, and psychological support.<sup>75</sup>

In addition to the financial and psychological impacts, personal data leaks can damage consumers' social and professional reputations, with consequences that are often difficult to recover from. Personal information that is widely shared without permission is often used by irresponsible parties for detrimental purposes, such as spreading false information or defaming the victim. In the professional world, leaked data can create a negative impression of the victim, which ultimately affects their career opportunities. In some cases, perpetrators even use the data to blackmail, demanding money in exchange for stopping further distribution. This situation puts victims in a very vulnerable position, both emotionally and socially, because they not only lose control over their data, but also have to face pressure from the perpetrators.<sup>76</sup>

The impact of personal data misuse does not stop at material losses or privacy violations, but also spreads to broader social aspects, with effects that are often difficult for victims to overcome.<sup>77</sup> A damaged reputation due to the unauthorized distribution of personal data often results in a loss of trust from the surrounding environment, both in the workplace and in social life. In a professional context, victims may face decreased career opportunities or even lose their jobs due to unfounded negative perceptions, while in social life, they often feel shunned, judged, or treated differently by friends, colleagues, and even family.<sup>78</sup> In some cases, victims also have to face significant costs to mitigate these losses, such as restoring their misused identity or improving their image in the eyes of the public. As a result, personal data breaches not only impact the privacy aspects of victims, but also leave deep social, professional and emotional wounds.<sup>79</sup>

From a human rights perspective, misuse of personal data constitutes a serious violation of consumers' right to privacy and data protection, which are

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<sup>75</sup> Ninne Zahara Silviani and Jeslyn Teo, "Enhancing Consumer Protection in Indonesia's Fintech Industry: Safeguarding the Rights of Fintech Service Users," *Ganesha Law Review* 5, no. 1 (2023): 64. See also, Irawansah et al., "Urgensi Pembentukan Undang-Undang," 538; Daeng et al., "Perlindungan Data Pribadi," 2904; Lutrianto and Riswaldi, "Legal Problems Personal Data," 349; Wang et al., "Identifying personal physiological," 9.

<sup>76</sup> Dian Rahmawati et al., "Privasi dan keamanan data di media sosial: dampak negatif dan strategi pencegahan," In *Prosiding Seminar Nasional Teknologi Dan Sistem Informasi*, 3, no. 1 (2023): 586.

<sup>77</sup> Lim and Oh, "Navigating Privacy: A Global Comparative," 5536766. See also, Ally, "Artificial intelligence (AI)," 236; Al Rezan et al., "User acceptance of terms," 139.

<sup>78</sup> Nurul Nuha Abdul Molok et al., "Information leakage through online social networking: Opening the doorway for advanced persistence threats," *Journal of the Australian Institute of Professional Intelligence Officers* 19, no. 2 (2011): 45.

<sup>79</sup> Taylor et al., "Privacy essentials," 2278. See also, Gibson and Harfield, "Amplifying victim vulnerability," 357.

fundamental elements in today's digital era.<sup>80</sup> This right to privacy should give consumers full control over how their personal data is used, including determining who can access it and the purposes for which it is used. However, when personal data is processed without consent or even disseminated without permission, these fundamental rights are neglected and not respected. This kind of misuse violates the principles stated in Law Number 27 of 2022 concerning Personal Data Protection (PDP Law), which aims to provide legal guarantees for consumers amidst the rapid development of information technology. The PDP Law emphasizes the importance of explicit consent from data owners in every process of processing personal data, but the reality shows that its implementation is still far from perfect.<sup>81</sup> Many violations that occur are caused by a lack of awareness of the importance of data protection, weak supervision, and the lack of strict sanctions for perpetrators of violations. As a result, consumers not only lose control over their data but also have to bear the risks arising from such misuse.<sup>82</sup>

This non-compliance with data protection regulations not only harms individual rights but also impacts public trust in fintech services. The fintech sector, which is supposed to offer convenience and security in digital transactions, is actually facing serious challenges when data leak incidents continue to occur. Public distrust of fintech companies' ability to protect their personal data can hamper the growth of this sector, which is basically very dependent on consumer trust. On the other hand, this violation of privacy rights reflects the lack of commitment of some companies to comply with existing regulations, which worsens the image of the industry as a whole.<sup>83</sup> To prevent this from spreading further, concrete steps are needed from all parties, including strengthening supervision by relevant authorities, increasing digital literacy in the community, and imposing stricter sanctions on violators. With a more serious approach, the fintech sector can rebuild public trust

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<sup>80</sup> In Indonesia, over 900 alleged legal and human rights violations have been reported involving online lending applications, many linked to breaches of privacy rights. These include the unauthorized use of debtors' personal data, where collection efforts target not only the debtor but also all contacts stored in their mobile phones, without consent, highlighting that personal data protection is an essential component of safeguarding fundamental human rights. See Priskarini and Tejomurti, "The Role of The Financial Services," 569. See also, Hartati et al., "Sharia fintech in the digital," 297; Budi Kharisma, "Urgency of financial technology," 328; Turnšek and Kraljić, "The Protection of Sensitive," 187.

<sup>81</sup> Ampuan Situmeang et al., "Contextualizing Consumer Data Protection within the Operational Principles of Banking: A Legal Inquiry," *Legal Spirit* 8, no. 4 (2024): 213.

<sup>82</sup> Luthfi Rosihan, "Perlindungan Data Pribadi sebagai Perwujudan Perlindungan Hak Asasi Manusia," *Jurnal Sosial Teknologi* 2, no. 5 (2022): 435.

<sup>83</sup> Katarzyna Biczysko-Pudelko, "The Regulatory Environment for the Safety of the Internet of Medical Devices Users in the European Union and the United States," *European Journal of Risk Regulation* 15, no. 4 (2024): 890; See also, Turnšek and Kraljić, "The Protection of Sensitive," 188; Prastyanti and Sharma, "Establishing Consumer Trust," 360.

while demonstrating a commitment to respecting human rights in the management of personal data.<sup>84</sup>

### 3.4. Strengthening Regulatory Oversight and Enforcement Mechanisms

To address the issue of personal data misuse in the fintech sector, comprehensive strategic steps are needed, with a focus on strengthening regulations and strict law enforcement. Regulations such as Law Number 27 of 2022 concerning Personal Data Protection (PDP Law) and Financial Services Authority Regulation Number 77 of 2016 have provided a clear legal framework regarding the obligations of fintech providers in maintaining the confidentiality of consumer data. Both regulations regulate consumer rights to privacy while also establishing the responsibilities of service providers in managing personal data. However, the success of these regulations depends not only on the substance of the existing rules, but also on the effectiveness of their implementation and supervision. The government and relevant authorities need to strengthen the monitoring mechanism for industry players' compliance, ensuring that any potential violations can be identified and handled quickly. This effort involves the formation of a special supervisory team, the provision of supporting technology to monitor data management, and close coordination between government agencies and the fintech industry.<sup>85</sup>

In addition, consistent and strict law enforcement must be a top priority in preventing violations of data protection regulations. The government must ensure that any violation of the PDP Law and related regulations is subject to appropriate sanctions, whether in the form of fines, administrative sanctions, or even revocation of business licenses for serious violators. This step not only provides a deterrent effect on perpetrators of violations, but also increases consumer confidence in the protection provided by the regulations.<sup>86</sup> Strict law enforcement will create a safer environment for consumers, while strengthening the reputation of the fintech sector as an industry that is responsible for managing personal data.<sup>87</sup> On the other hand, it is also important to increase digital literacy in the community,

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<sup>84</sup> Maharani and Prakoso, "Perlindungan Data Pribadi," 339. See also, Priskarini and Tejomurti, "The Role of The Financial Services," 572; Hartati et al., "Sharia fintech in the digital," 298; Budi Kharisma, "Urgency of financial technology," 330.

<sup>85</sup> Veronica Novinna, "Consumer Protection from the Dissemination of Personal Data by Third Parties: The Case of Fintech "Peer to Peer Lending"," *Udayana Master of Law Journal* 9, no. 1 (2020): 101.

<sup>86</sup> Algamar and Munir, "Managing Indonesian Data Breach," 556. See also, Sudarwanto and Kharisma, "Comparative study of personal data," 1455; Budi Kharisma, "Urgency of financial technology," 333.

<sup>87</sup> Ramon Nofrial et al., "The Consumer Protection in The Balance of Business Actors and Consumers: A Paradigm of Justice," *Jurnal Hukum* 41, no. 1 (2024): 81. See also, Rusadi, and Benuf, "Fintech peer to peer lending," 237.



so that consumers can better understand their rights to personal data and the steps to take in the event of a violation. With a combination of strong regulations, consistent law enforcement, and increased public awareness, the problem of misuse of personal data can be minimized, so that the fintech sector can develop sustainably without sacrificing consumer rights.<sup>88</sup>

Increasing digital literacy among the public is also an important step to reduce the risk of misuse of personal data, considering that many consumers still do not understand how to protect their data when using fintech services. To overcome this, the Financial Services Authority (*Otoritas Jasa Keuangan*/OJK) together with fintech associations must continue to promote educational campaigns that emphasize the importance of personal data security in digital activities. This campaign can cover various aspects, such as how to recognize signs of digital fraud, steps to secure personal data, and a deep understanding of consumer rights that have been regulated in data protection regulations, such as Law Number 27 of 2022 concerning Personal Data Protection (PDP Law). This education can also be carried out through various platforms, including social media, webinars, and collaboration with educational institutions to reach more people from various backgrounds. With a better understanding, consumers will be more proactive in protecting their privacy, able to recognize potential threats early on, and take the necessary preventive measures to keep their personal data safe. This not only reduces the risk of data misuse but also helps increase public trust in existing fintech services.<sup>89</sup>

The implementation of information security technology by fintech providers is a crucial element in ensuring consumer data protection amidst the increasing threats of the digital world. Fintech service providers must adopt the latest technology, such as data encryption, which can ensure that consumers' personal information cannot be accessed by unauthorized parties.<sup>90</sup> This technology includes the implementation of advanced security protocols, such as end-to-end encryption, which can protect data during transmission and storage.<sup>91</sup> In addition, the use of stricter identity verification systems, such as biometrics, is a strategic step to prevent data misuse.<sup>92</sup> Biometric technology, such as facial or fingerprint recognition, not only increases the accuracy of the verification process but also

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<sup>88</sup> Federico Ferretti, "Consumer access to capital in the age of FinTech and big data: The limits of EU law," *Maastricht Journal of European and Comparative Law* 25, no. 4 (2018): 485.

<sup>89</sup> Adedoyin Tolulope Oyewole et al., "Data privacy laws and their impact on financial technology companies: a review," *Computer Science & IT Research Journal* 5, no. 3 (2024): 639.

<sup>90</sup> Noor et al., "Maslahah-Based Protection of Fund," 13. See also, Ally, "Artificial intelligence (AI)," 238; Amalia et al., "Legal Issues of Personal Data," 332.

<sup>91</sup> Barański et al., "Anonymous provision of privacy," 139. See also, Turnšek and Kraljić, "The Protection of Sensitive," 189.

<sup>92</sup> Turnšek and Kraljić, "The Protection of Sensitive," 190. See also, Barański et al., "Anonymous provision of privacy," 140.

reduces the possibility of data being used by other parties without permission. By integrating this technology into their systems, fintech providers can create a safer transaction environment for consumers while increasing public trust in the services they offer.<sup>93</sup>

In addition to implementing advanced technology, regular security audits are also an important step to maintain system reliability. This audit aims to identify potential security gaps that may be exploited by irresponsible parties, so that preventive measures can be taken immediately before a data leak incident occurs. The audit process must include a comprehensive evaluation of the technology infrastructure, data management mechanisms, and operational procedures implemented by fintech organizers.<sup>94</sup> Not only that, collaboration with cybersecurity experts and independent institutions can also help improve security standards through more in-depth and objective analysis.<sup>95</sup> With this comprehensive approach, the risk of data leakage can be significantly minimized, allowing consumers to use fintech services with a sense of security and comfort. This not only provides better protection for consumers but also strengthens the reputation of fintech providers as responsible and reliable industry players.<sup>96</sup>

The existence of a responsive reporting and complaint mechanism is a crucial element in efforts to protect personal data, as this mechanism ensures that consumers have easy and fast access to report data breaches they experience. Regulators such as the financial services authority and the Ministry of Communication and Information must play an active role in providing effective reporting channels, both through digital platforms and direct services, so that consumers can immediately obtain adequate legal protection.<sup>97</sup> In addition, this reporting mechanism must be supported by a transparent and accountable system, where every report received is handled fairly, comprehensively, and in a timely manner. This includes providing clear information to consumers regarding the

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<sup>93</sup> Hassan HH Aldboush and Marah Ferdous, "Building trust in fintech: an analysis of ethical and privacy considerations in the intersection of big data, AI, and customer trust," *International Journal of Financial Studies* 11, no. 3 (2023): 98.

<sup>94</sup> Algamar and Munir, "Managing Indonesian Data Breach," 557. See also, Barański et al., "Anonymous provision of privacy," 134; Fitriyanti et al., "Securing personal data," 112.

<sup>95</sup> Hoga Saragih et al., *Rabasia dan Strategi Cerdas Mengelola Keuangan Digital Melalui Pinjaman Online*, (Jakarta: Universitas Bakrie Press, 2025), 64.

<sup>96</sup> Ilman Maulana Kholis, "Perlindungan Data Pribadi dan Keamanan Siber di Sektor Perbankan: Studi Kritis atas Penerapan UU PDP dan UU ITE di Indonesia," *Staatsrecht: Jurnal Hukum Kenegaraan dan Politik Islam* 4, no. 2 (2024): 287.

<sup>97</sup> Wiwik Sri Widiarty and Md Hasnath Kabir Fahim, "Institutional roles and mechanisms in upholding legal protection under consumer protection law in the era of globalization," *Jurnal Hukum* 40, no. 2 (2024): 142. See also, Dhaniswara K. Harjono et al., "Ensuring Fair Business Practices and Consumer Rights: The Role and Impact of Indonesia's Consumer Dispute Settlement Agency," *Jurnal Hukum Unissula* 40, no. 1 (2024): 268; Algamar and Munir, "Managing Indonesian Data Breach," 559.

progress of handling their reports, while ensuring that the process is carried out without discrimination. With a responsive and reliable system, consumers not only feel more protected, but also have greater trust in regulators and service providers. Moreover, the existence of this mechanism also encourages fintech providers to be more compliant with applicable regulations, because they are aware of the possibility of supervision and reporting by consumers. In the long term, this mechanism not only strengthens the position of consumers in the digital ecosystem, but also contributes to the creation of a safer, more transparent, and more trustworthy fintech service environment.<sup>98</sup>

With its wide-ranging impacts, from financial to social and human rights, misuse of personal data in the fintech sector requires serious attention and comprehensive handling. It is not enough to rely solely on regulations such as Law Number 27 of 2022 concerning Personal Data Protection (PDP Law), but concrete steps are also needed from various parties to create a safe and trusted fintech ecosystem. Public education is an important key, considering that many consumers do not fully understand the risks of misuse of personal data and how to protect it.<sup>99</sup> Digital literacy campaigns by the financial services authority and fintech associations must include information on consumer rights, how to recognize digital threats, and effective preventive measures. On the other hand, the adoption of security technologies such as data encryption and biometric authentication by service providers can significantly improve consumer data protection.<sup>100</sup> This step must be accompanied by regular security audits to identify and address gaps in the system.<sup>101</sup> In addition, strict law enforcement by the government is important to provide a deterrent effect on perpetrators of violations and increase public trust in regulatory protection.<sup>102</sup> With synergy between the government, service providers,

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<sup>98</sup> Mohsin Ali Farhad, "Consumer data protection laws and their impact on business models in the tech industry," *Telecommunications Policy* 48, no. 9 (2024): 102836. See also, Algamar and Munir, "Managing Indonesian Data Breach," 551; Sri Widiarty and Fahim, "Institutional roles and mechanisms," 142; Harjono et al., "Ensuring Fair Business," 267; Prastyanti and Sharma, "Establishing Consumer Trust," 363; Noor et al., "Maslahah-Based Protection of Fund," 15.

<sup>99</sup> Noor et al., "Maslahah-Based Protection of Fund," 17. See also, Prastyanti and Sharma, "Establishing Consumer Trust," 364; Admiral and Pauck, "Unveiling the Dark Side," 999.

<sup>100</sup> Barański et al., "Anonymous provision of privacy," 149. See also, Morić et al., "Protection of personal data," 742; Fitriyanti et al., "Securing personal data," 113.

<sup>101</sup> Barański et al., "Anonymous provision of privacy," 150. See also, Ally, "Artificial intelligence (AI)," 240; Morić et al., "Protection of personal data," 744; Fitriyanti et al., "Securing personal data," 115; Hartati et al., "Sharia fintech in the digital," 302.

<sup>102</sup> Noor et al., "Maslahah-Based Protection of Fund," 13. See also, Barański et al., "Anonymous provision of privacy," 143; Morić et al., "Protection of personal data," 745; Wibowo et al., "The importance of personal data," 2306752; Prastyanti and Sharma, "Establishing Consumer Trust," 365.

and consumers, the fintech sector in Indonesia can continue to develop innovatively while maintaining privacy and data security as top priorities.<sup>103</sup>

#### 4. Conclusion

The effectiveness of the implementation of personal data protection regulations in the Indonesian fintech sector, such as the PDP Law and POJK 77/2016, shows significant progress in building a comprehensive legal framework. The adoption of international standards such as GDPR, the establishment of BPDP as a supervisory institution, and the obligation to report data leak incidents within 3x24 hours are progressive steps that increase the accountability of organizers and provide legal protection for consumers. These regulations have normatively met high standards, emphasizing the importance of explicit consent, transparency of privacy policies, and the application of security technology. However, misuse of personal data is still a serious threat with multidimensional impacts, ranging from financial losses, psychological pressure, to damage to social and professional reputation for consumers. Cases of illegal online loans and identity theft show that even though the legal framework is in place, the challenges in consistent law enforcement, increasing digital literacy in society, and implementing cutting-edge security technology evenly remain homework. The true effectiveness of regulations will depend greatly on strong synergy between the government, regulators, fintech organizers, and proactive awareness from consumers in protecting their personal data.

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<sup>103</sup> Sri Lestari Poernomo, "Transformative Justice, Protection of Consumer Personal Data in Online Loan Business in Indonesia," *Russian Law Journal* 11, no. 3 (2023): 564. See also, Noor et al., "Maslahah-Based Protection of Fund," 13; Sun et al., "Cooperative governance mechanisms," 443; Prastyanti and Sharma, "Establishing Consumer Trust," 367; Algamar and Munir, "Managing Indonesian Data Breach," 560; Sukaesih Kurniati and Suryanto, "The role of the Indonesian government," 79.

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