



Civil Liability of Buy Now Pay Later Providers for Harmful Algorithmic Credit Decisions

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Keywords:

Buy Now Pay Later; algorithmic credit decision; consumer protection; civil liability; explainability; credit scoring.

ABSTRACT

This study examined the civil liability of Buy Now Pay Later providers for harmful algorithmic credit decisions through normative legal research using statutory, conceptual, and comparative approaches. Automated approval, rejection, limit reduction, or risk classification remained attributable to the bank or finance company operating the product. Liability arose when loss was connected to inaccurate or unlawfully obtained data, an unsuitable affordability assessment, an unvalidated or biased model, inadequate reasons, ineffective human review, or failure to correct an adverse decision. Outsourcing scoring functions did not transfer primary responsibility toward consumers. The study proposed an algorithmic-liability model based on procedural duties, rebuttable evidentiary presumptions, traceable decision records, human reassessment, and restorative remedies. OJK should adopt detailed rules on impact assessment, model validation, fairness testing, explanation standards, audit logs, third-party governance, and time-bound consumer review.

Kata Kunci:

kewajiban prosedural; validasi model; pengujian keadilan; tinjauan manusia; praduga pembuktian; pemulihan konsumen.

ABSTRAK

Kerangka yang diusulkan menghubungkan pertanggungjawaban perdata dengan enam kewajiban yang dapat diaudit, meliputi tata kelola data, validasi model dan pengujian keadilan, penjelasan berlapis, tinjauan manusia yang bermakna, dokumentasi, serta tata kelola pihak ketiga. Konsumen terlebih dahulu perlu menunjukkan adanya keputusan yang merugikan, kerugian yang dapat diidentifikasi secara wajar, serta indikasi awal terjadinya kegagalan prosedural. Setelah itu, penyedia wajib menyerahkan catatan mengenai model dan proses pengambilan keputusan yang berada dalam penguasaannya. Kegagalan menyimpan atau mengungkapkan catatan yang seharusnya tersedia dapat menjadi dasar bagi praduga yang dapat dibantah mengenai adanya pelanggaran dan hubungan kausal. Mekanisme pemulihan diprioritaskan melalui koreksi data, penilaian ulang oleh manusia, perbaikan pelaporan kredit yang merugikan, penggantian kerugian finansial, serta pemberian kompensasi yang proporsional. Model ini tetap mempertahankan legitimasi pengelolaan risiko kredit karena tidak memberikan hak mutlak kepada konsumen untuk memperoleh kredit dan tidak menerapkan pertanggungjawaban ketat terhadap setiap penolakan. Sebaliknya, penyedia diwajibkan membuktikan bahwa keputusan otomatis didasarkan pada data yang diperoleh secara sah, metode yang telah divalidasi, faktor yang relevan, serta mekanisme peninjauan yang dapat diakses oleh konsumen.



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A. Introduction

Buy Now Pay Later (BNPL) services have developed into a form of consumer financing that integrates electronic-commerce transactions, rapid credit approval, and instalment payments. Their scale of use indicates that BNPL has moved from an ancillary payment facility to retail-credit infrastructure. Data from Indonesia's Financial Services Authority (Otoritas Jasa Keuangan, OJK) show that, as of May 2026, the outstanding balance of bank-issued BNPL credit reached IDR 30.1 trillion across 31.76 million accounts. BNPL financing provided by finance companies reached IDR 13.18 trillion, with a gross non-performing financing ratio of 3.44 percent. Their respective annual growth rates were 37.72 percent and 53.78 percent. These figures expand the potential benefits of financial inclusion while increasing the number of consumers affected by high-speed credit decisions.¹

OJK Regulation Number 32 of 2025 defines BNPL as a financing facility provided through an electronic system for the purchase of goods or services. Its providers are limited to commercial banks and finance companies. The regulatory characteristics include non-cash and unsecured financing, a credit limit, instalment repayment, electronic processing, and operation through an electronic system. This structure confirms that decisions concerning approval, rejection, initial limits, limit adjustments, tenure, pricing, and termination are integral to operating the financing product. They are not merely technical activities outside the legal financing relationship.²

The speed of BNPL approval is commonly achieved through automated credit assessment. A system may combine identity data, payment history, financial-information-system records, transaction behaviour, device characteristics, and other data considered predictive of a consumer's ability or willingness to pay. The processing produces a score or classification that is translated into a decision. This efficiency can reduce assessment costs and extend services to consumers with limited credit histories. The separation of data, model, and decision, however,

¹ Otoritas Jasa Keuangan, "Resiliensi dan Kinerja Intermediasi Sektor Jasa Keuangan Terjaga sebagai Modalitas Mendorong Pertumbuhan," RDKB June 2026 press release, July 7, 2026.

² Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 32 Tahun 2025 tentang Penyelenggaraan Beli Sekarang Bayar Nanti (Buy Now Pay Later)*, especially the provisions governing eligible providers, product characteristics, prudential duties, consumer protection, and disclosure.



makes it difficult for consumers to determine why an application was rejected, a limit was reduced, or a profile was assigned to a high-risk category.³

The legal risk extends beyond credit rejection. An excessively permissive decision may grant a limit that exceeds repayment capacity, encourage accumulated obligations, trigger fees and collection measures, and damage a consumer's credit record. An excessively restrictive decision may exclude a person from financing, prevent an important transaction, or produce unequal treatment of particular groups. Empirical studies of BNPL identify links between its use, other forms of credit, and financial distress among some users. Legal and policy research also shows that an apparently simple product design may obscure costs, late-payment risks, and the consequences of accumulating facilities across several platforms.⁴⁵

The problem becomes more acute when apparently neutral variables operate as proxies for social position, location, occupation, age, or other characteristics. A model with high aggregate accuracy may still distribute errors unevenly. Research on credit markets shows that machine learning can improve prediction while altering the distribution of credit access and pricing. Studies of *fair credit scoring* further demonstrate that algorithmic disparities can be reduced without eliminating all predictive value, although the selection of a fairness metric inevitably involves normative judgment.⁶⁷

Consumer loss is difficult to remedy when a provider communicates only a final result such as "the criteria were not satisfied" or "the decision was based on system evaluation." Generic statements do not allow a consumer to verify the accuracy of data, understand decisive factors, distinguish a lawful rejection from system failure, or submit a targeted correction. Explainability does not require

³ Nikita Aggarwal, "The Norms of Algorithmic Credit Scoring," *The Cambridge Law Journal* 80, no. 1 (2021): 42–73, <https://doi.org/10.1017/S0008197321000015>.

⁴ Benedict Guttman-Kenney, Chris Firth, and John Gathergood, "Buy Now, Pay Later (BNPL) ... On Your Credit Card," *Journal of Behavioral and Experimental Finance* 37 (2023): 100788, <https://doi.org/10.1016/j.jbef.2023.100788>.

⁵ Lucinda O'Brien, Ian Ramsay, and Paul Ali, "Innovation, Disruption and Consumer Harm in the Buy Now Pay Later Industry: An Empirical Study," *University of New South Wales Law Journal* 47, no. 2 (2024): 657–98, <https://doi.org/10.53637/ZXAN7475>.

⁶ Andreas Fuster, Paul Goldsmith-Pinkham, Tarun Ramadorai, and Ansgar Walther, "Predictably Unequal? The Effects of Machine Learning on Credit Markets," *The Journal of Finance* 77, no. 1 (2022): 5–47, <https://doi.org/10.1111/jofi.13090>.

⁷ Nikita Kozdoi, Johannes Jacob, and Stefan Lessmann, "Fairness in Credit Scoring: Assessment, Implementation and Profit Implications," *European Journal of Operational Research* 297, no. 3 (2022): 1083–94, <https://doi.org/10.1016/j.ejor.2021.06.023>.

disclosure of source code or trade secrets in their entirety. The relevant duty concerns the provider's capacity to identify the principal factors, the data sources used, the relationship between those factors and the outcome, and the available procedures for correction and review.⁸⁹

Indonesian positive law already supplies several foundations. OJK Regulation Number 22 of 2023 requires financial-services businesses to bear responsibility for consumer losses caused by fault, negligence, regulatory breach, or contractual breach, including conduct by third parties acting for or representing them. The same regulation requires reasons for a delay or rejection and an assessment of whether a product corresponds to the needs and capacity of a prospective consumer. The Personal Data Protection Law grants a right to object to decisions based solely on automated processing when they create legal consequences or significant effects.¹⁰¹¹

Despite these normative foundations, the limits of liability for algorithmic credit decisions have not been operationalised. BNPL rules address prudential principles, data protection, cooperation, and disclosure, but they do not establish minimum content for decision explanations, model-validation standards, disparity testing, model-change governance, a time limit for human review, or evidentiary consequences when decision records are unavailable. This operational gap may impose an unrealistic burden on consumers because training data, parameters, model versions, decision thresholds, and intervention records remain under the exclusive control of the provider or its vendor.¹²¹³

⁸ Michael Bücker, Gero Szepannek, Alicja Gosiewska, and Przemysław Biecek, "Transparency, Auditability, and Explainability of Machine Learning Models in Credit Scoring," *Journal of the Operational Research Society* 73, no. 1 (2022): 70–90, <https://doi.org/10.1080/01605682.2021.1922098>.

⁹ Alison T. Lui, George Lamb, and Lola Durodola, "A Right to Explanation for Algorithmic Credit Decisions in the UK," *Law, Innovation and Technology* 17, no. 1 (2025): 289–317, <https://doi.org/10.1080/17579961.2025.2469352>.

¹⁰ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 22 Tahun 2023 tentang Pelindungan Konsumen dan Masyarakat di Sektor Jasa Keuangan*, arts. 10, 34, and 37.

¹¹ Republic of Indonesia, *Undang-Undang Nomor 27 Tahun 2022 tentang Pelindungan Data Pribadi*, Lembaran Negara Republik Indonesia Tahun 2022 Nomor 196, Tambahan Lembaran Negara Republik Indonesia Nomor 6820, arts. 10 and 12.

¹² Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 32 Tahun 2025 tentang Penyelenggaraan Beli Sekarang Bayar Nanti (Buy Now Pay Later)*, especially the provisions governing eligible providers, product characteristics, prudential duties, consumer protection, and disclosure.

¹³ Aliya Suci Maghfirli, Thea Farina, and Nuraliah Ali, "Credit Scoring P2P Lending Fintech: Right to Explanation in AI-Based Credit," *Eduvest: Journal of Universal Studies* 5, no. 11 (2025): 13773–85, <https://doi.org/10.59188/eduvest.v5i11.52362>.

Previous scholarship has developed several relevant lines of inquiry. Aggarwal constructed a normative framework for algorithmic credit scoring through allocative efficiency, distributive justice, and privacy. Bucker and co-authors developed the dimensions of transparency, auditability, and model explainability. Maghfirli, Farina, and Ali examined the right to explanation in technology-based credit scoring in Indonesia. Lui, Lamb, and Durodola proposed a specific right to explanation for algorithmic credit decisions in the United Kingdom. These studies have not yet integrated the questions of who bears liability in Indonesia's BNPL ecosystem, when a defective decision becomes compensable, how causation and evidence should be assessed, and what forms of redress are proportionate.¹⁴¹⁵¹⁶¹⁷

The novelty of this study lies in a procedural-duty model of BNPL algorithmic liability. The model assesses fault through compliance across the decision life cycle rather than through the approval or rejection outcome alone. The relevant stages include the legality and quality of data, model design and validation, suitability assessment, communication of reasons, human review, preservation of decision records, and redress. The model also applies a rebuttable evidentiary presumption when a provider fails to produce evidence under its control. This study addresses two questions: how provider liability should be constructed for harmful algorithmic credit decisions, and how its limits and remedies can protect consumers without eliminating legitimate credit-risk management.

B. Research Method

This study employed normative legal research using statutory, conceptual, and comparative approaches. Primary legal materials included the Consumer Protection Law, the Personal Data Protection Law, the Financial Sector

¹⁴ Nikita Aggarwal, "The Norms of Algorithmic Credit Scoring," *The Cambridge Law Journal* 80, no. 1 (2021): 42–73, <https://doi.org/10.1017/S0008197321000015>.

¹⁵ Michael Bucker, Gero Szepannek, Alicja Gosiewska, and Przemysław Biecek, "Transparency, Auditability, and Explainability of Machine Learning Models in Credit Scoring," *Journal of the Operational Research Society* 73, no. 1 (2022): 70–90, <https://doi.org/10.1080/01605682.2021.1922098>.

¹⁶ Aliya Suci Maghfirli, Thea Farina, and Nuraliah Ali, "Credit Scoring P2P Lending Fintech: Right to Explanation in AI-Based Credit," *Eduvest: Journal of Universal Studies* 5, no. 11 (2025): 13773–85, <https://doi.org/10.59188/eduvest.v5i11.52362>.

¹⁷ Alison T. Lui, George Lamb, and Lola Durodola, "A Right to Explanation for Algorithmic Credit Decisions in the UK," *Law, Innovation and Technology* 17, no. 1 (2025): 289–317, <https://doi.org/10.1080/17579961.2025.2469352>.



Development and Strengthening Law, the Indonesian Civil Code, electronic-system regulations, OJK Regulation Number 22 of 2023, OJK Regulation Number 32 of 2025, and the implementing rules for BNPL provided by finance companies. Secondary materials consisted of journal articles, policy reports, and literature on consumer credit, algorithmic explainability, model fairness, and risk governance. A limited comparison with European Union law and United States guidance was used to identify principles adaptable to Indonesia's legal structure. The analysis was prescriptive and applied systematic interpretation, regulatory-gap identification, and a construction of liability linking duties, breach, loss, causation, evidence, and redress.

C. Discussion

1. Constructing Liability for Algorithmic Credit Decisions

a. Algorithmic Decisions as Provider Service Actions

The construction of liability begins with attribution. BNPL may be provided only by commercial banks or finance companies. Consumers enter into a financing relationship with the provider, receive a limit under its product, make instalment payments to it, and face collection and credit-reporting consequences arising from the facility. An algorithm functions as an organisational instrument for implementing a business decision. The data sources, optimisation objectives, risk thresholds, error tolerance, and circumstances triggering rejection are selected or approved within the provider's governance structure. The system output should therefore be treated as an act of the provider even when another party develops or operates the model.¹⁸¹⁹

This attribution is consistent with Article 10 of OJK Regulation Number 22 of 2023. A financial-services business is responsible for losses caused by directors, commissioners, employees, and third parties acting for or representing it. The concept of a third party can encompass cloud-service providers, model developers,

¹⁸ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 32 Tahun 2025 tentang Penyelenggaraan Beli Sekarang Bayar Nanti (Buy Now Pay Later)*, especially the provisions governing eligible providers, product characteristics, prudential duties, consumer protection, and disclosure.

¹⁹ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 32 Tahun 2025*, provisions on cooperation with other parties and provider responsibility.



data suppliers, alternative credit-rating providers, and technology partners when their functions are used to produce or implement product decisions. Internal contracts may allocate risk and rights of recourse, but they should not require consumers to identify which party committed a technical error before obtaining redress.²⁰

Credit assessment increasingly involves alternative credit-rating providers. In June 2026, eight alternative credit-rating providers were registered with OJK, while the number of credit-score inquiries during May 2026 reached 26.61 million. This scale indicates that third-party scores can become material inputs for numerous financial institutions. Although rating providers are subject to financial-sector technology-innovation rules, a BNPL provider must still conduct due diligence on the use of a score, examine data relevance, understand model limitations, regulate service quality, and establish correction procedures. Reliance on a third-party output without reasonable examination can constitute organisational negligence.²¹²²

Liability does not make every credit rejection unlawful. A creditor has a legitimate interest in controlling risk, preserving portfolio quality, and rejecting applications that fail to satisfy lawful criteria. Legal fault arises when that authority is exercised through a process that breaches applicable standards. Examples include using another person's data because of failed identity matching, ignoring an updated repayment record, relying on irrelevant variables, deploying a model never validated for the relevant user population, altering a decision threshold without testing, or refusing review after a consumer presents evidence of inaccurate data. This distinction separates legitimate credit risk from an accountable procedural failure.

b. Legal Bases and Elements of Liability

The first basis arises from sector-specific duties. Article 34 of OJK Regulation Number 22 of 2023 requires a provider to communicate acceptance,

²⁰ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 22 Tahun 2023*, art. 10(1), including conduct by a third party acting for or representing a financial-services business.

²¹ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 3 Tahun 2024 tentang Penyelenggaraan Inovasi Teknologi Sektor Keuangan*.

²² Otoritas Jasa Keuangan, "Resiliensi dan Kinerja Intermediasi," licensing data for alternative credit-rating providers and credit-score inquiries as of May and June 2026.



delay, or rejection and, unless another rule provides otherwise, the reasons for a delay or rejection. In an automated decision, the reasons must correspond to factors that actually influenced the outcome rather than to an overbroad list of possibilities. A meaningful explanation should at least state the decision category, principal factors, relevant data sources, correction procedure, and access to review. This information enables the consumer to defend an interest without requiring full disclosure of source code.²³

Article 37 of the same regulation requires alignment between a prospective consumer's needs and capacity and the offered product or service. Classification must consider background, occupation, financial condition, intended use, and other relevant information, and it must be documented. This duty matters because BNPL harm can arise from an improper rejection or an unsuitable approval. Granting a high limit to a person who cannot reasonably repay may indicate a defective affordability assessment. Conversely, rejection based on digital-behaviour indicators unrelated to repayment capacity may show a disproportionate classification.²⁴

The second basis arises from personal data protection. The right to object to a decision based solely on automated processing recognises that automated decisions may produce serious individual effects. It should be read together with the rights of access, correction, and compensation. In BNPL, a significant effect may include exclusion from credit, a limit reduction that prevents a transaction, increased charges, adverse risk labelling, or downstream consequences for a financing record. Effective exercise of the objection right requires a channel that results in a fresh assessment by an authorised officer who can change the outcome, rather than another confirmation by the same model.²⁵²⁶

²³ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 22 Tahun 2023*, art. 34(2), concerning the duty to state reasons for a delay or rejection.

²⁴ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 22 Tahun 2023*, art. 37(1)–(3), concerning product suitability, consumer needs and capacity, and documentation of the assessment.

²⁵ Republic of Indonesia, *Undang-Undang Nomor 27 Tahun 2022 tentang Pelindungan Data Pribadi*, Lembaran Negara Republik Indonesia Tahun 2022 Nomor 196, Tambahan Lembaran Negara Republik Indonesia Nomor 6820, arts. 10 and 12.

²⁶ Republic of Indonesia, *Undang-Undang Nomor 27 Tahun 2022*, art. 10, concerning the right to object to a decision based solely on automated processing that creates legal consequences or significant effects.



The third basis arises from consumer-protection and private law. Article 19 of the Consumer Protection Law provides compensation liability for damage, contamination, or loss caused by goods or services produced or traded by a business. Article 28 shifts the burden of proving fault to the business in specified compensation claims. Under private law, breach of contract applies when the provider violates a contractual duty, while tortious liability applies when the decision process breaches a statutory duty, propriety, due care, or a consumer right. Articles 1366 and 1367 of the Indonesian Civil Code strengthen liability for negligence and for persons under supervision or an employment relationship.²⁷²⁸

Taken together, these norms establish five elements of algorithmic liability: a legal duty, breach, loss, causation, and attribution to the provider. A breach may consist of an affirmative act, such as using unlawfully obtained data, or an omission, such as failing to update a model after a serious error rate is identified. Loss must be sufficiently concrete or reasonably measurable. Material loss may include additional charges, penalties, loss of a transaction benefit, or expenses incurred to restore identity and credit records. Non-material loss may be considered when a serious effect on privacy, financial reputation, or proven distress is directly connected to the breach.

c. Causation, Evidence, and Limits of Liability

Causation in an algorithmic system is rarely singular. An outcome may be produced by input data, feature transformations, a model, risk thresholds, business rules, and human intervention. A consumer usually sees only the final result. To avoid an impossible evidentiary standard, causation can be assessed through process causation. The consumer should first show loss and a plausible preliminary fact, such as the continued use of obsolete data after a credit-information record was corrected, inconsistent reasons, or a similar error pattern affecting a consumer group. Once this initial threshold is met, the provider should disclose the decision trail and demonstrate procedural compliance.

²⁷ Republic of Indonesia, *Undang-Undang Nomor 8 Tahun 1999 tentang Perlindungan Konsumen*, Lembaran Negara Republik Indonesia Tahun 1999 Nomor 42, Tambahan Lembaran Negara Republik Indonesia Nomor 3821, arts. 19 and 28.

²⁸ *Kitab Undang-Undang Hukum Perdata* [Indonesian Civil Code], arts. 1243, 1365, 1366, and 1367.



The need to shift the evidentiary burden is supported by information asymmetry and Article 28 of the Consumer Protection Law. Its application need not create strict liability. The presumption may be rebutted by evidence that the data were verified, the model was validated, the decisive factors were relevant, the outcome followed a lawful policy, and human review was conducted when requested. If the provider does not retain the model version, data sources, values of principal factors, decision threshold, and objection-handling record, the absence of evidence should support a presumption that duties of due care or explainability were not fulfilled.²⁹

A decision record must be distinguished from general disclosure of trade secrets. A court, OJK, or a dispute-resolution body may use restricted access, document confidentiality, expert examination, or a technical summary. The consumer receives information necessary to challenge the decision, while sensitive parameters remain protected against unnecessary dissemination. The concept of *accountable algorithms* shows that auditability can be built through records of inputs, testing, and outputs without requiring every system to become entirely public. The decisive issue is whether an authorised institution can assess compliance effectively.³⁰³¹

The limits of liability should preserve legitimate risk management. First, a person has no subjective right to receive credit in every case. Second, different outcomes are justified when based on relevant and measurable risk factors applied consistently. Third, loss caused entirely by false consumer data or consumer negligence may reduce or exclude liability when the provider proves that connection. Fourth, an immaterial model error that is promptly corrected without actual loss is more appropriately addressed through administrative remediation. Fifth, the explanation duty does not extend to information that would concretely facilitate fraud, but this exception must be interpreted narrowly.

²⁹ Republic of Indonesia, *Undang-Undang Nomor 8 Tahun 1999*, art. 28, concerning the burden of proving fault in specified consumer-compensation claims.

³⁰ Joshua A. Kroll et al., "Accountable Algorithms," *University of Pennsylvania Law Review* 165, no. 3 (2017): 633–705.

³¹ Andrew D. Selbst and Solon Barocas, "The Intuitive Appeal of Explainable Machines," *Fordham Law Review* 87, no. 3 (2018): 1085–1139.



2. A Consumer-Remedy-Oriented Model of Algorithmic Liability

a. Regulatory Gaps and Comparative Lessons

The latest BNPL rules address institutional and prudential issues by limiting eligible providers and regulating OJK approval, prudential principles, data protection, disclosure, collection, and reporting. The implementing regulation for finance companies also emphasises transparency, strengthened supervision, risk mitigation, and consumer protection. These instruments do not yet structure algorithmic decision governance as a distinct sequence of duties. Compliance may consequently stop at product disclosure and system security, although consumer harm often arises from the quality of an inference and the manner in which a model converts data into an individual decision.³²³³

Comparative law supplies three relevant principles. The *SCHUFA* judgment recognised that a score may constitute an automated decision when the user gives that score a determining role. The European Union Artificial Intelligence Act classifies systems used to evaluate the creditworthiness of natural persons as high-risk systems, requiring risk management, data governance, documentation, logging, transparency, human oversight, accuracy, and security. In the United States, the Consumer Financial Protection Bureau has stated that the use of a complex algorithm does not relieve a creditor of the duty to provide specific reasons for an adverse credit action.³⁴³⁵³⁶

These lessons should not be transplanted mechanically. Indonesia already has a strong foundation through duties to state reasons for rejection, assess suitability, accept responsibility for third parties, provide an objection right against automated decisions, and apply specified reversals of the evidentiary burden. The

³² Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 32 Tahun 2025 tentang Penyelenggaraan Beli Sekarang Bayar Nanti (Buy Now Pay Later)*, especially the provisions governing eligible providers, product characteristics, prudential duties, consumer protection, and disclosure.

³³ Otoritas Jasa Keuangan, *Peraturan Anggota Dewan Komisiner Otoritas Jasa Keuangan Nomor 2 Tahun 2026 tentang Penyelenggaraan Beli Sekarang Bayar Nanti bagi Perusahaan Pembiayaan dan Perusahaan Pembiayaan Syariah*.

³⁴ Court of Justice of the European Union, *SCHUFA Holding (Scoring)*, Case C-634/21, judgment of December 7, 2023, ECLI:EU:C:2023:957.

³⁵ European Parliament and Council, *Regulation (EU) 2024/1689 Laying Down Harmonised Rules on Artificial Intelligence*, annex III, point 5(b).

³⁶ Consumer Financial Protection Bureau, *Circular 2022-03: Adverse Action Notification Requirements in Connection with Credit Decisions Based on Complex Algorithms* (Washington, DC: CFPB, 2022).

principal need is implementation standardisation. OJK can connect model governance with market-conduct supervision, while the data-protection authority focuses on processing grounds, data-subject rights, and security. Coordination is required so that the same decision is not treated solely as a technology risk or solely as a contractual dispute.

Table 1. Regulatory Gaps and Proposed Standards for BNPL Algorithmic Liability

Aspect	Existing Norm	Regulatory Gap	Proposed Standard
Data and creditworthiness	Prudential duties, data protection, and assessment of needs and repayment capacity	No specific standard for data quality, feature relevance, or population testing	Data legality, accuracy, representativeness, relevance, updating, and correction
Decision reasons	Reasons for a delay or rejection must be communicated	Minimum content and specificity have not been defined	Principal factors, data sources, effect of each factor, and correction and objection procedures
Human review	A right to object to automated decisions is available	No requirements on authority, competence, or review time limits	An authorised officer may change the result, assess new evidence, and provide fresh reasons
Audit and evidence	Suitability documentation and general system governance are required	Model-version trails and individual decision records remain insufficiently specified	Model inventory, input-output logs, thresholds, validation, incidents, and change records
Third parties	A financial-services business remains responsible for a third party acting for it	Technical duties and data-correction rights are not uniformly allocated	Primary liability of the provider, vendor audit, access to evidence, and internal recourse
Redress	Compensation, complaints, dispute resolution, and sanctions are available	No detailed remedy specifically addresses algorithmic decisions	Data correction, reassessment, limit restoration, removal of adverse effects, reimbursement, and compensation

Source: Author's analysis based on consumer-protection, personal-data-protection, and BNPL regulations.

The matrix shows that algorithmic liability does not require an entirely new private-law regime. Existing norms can be operationalised through auditable procedural standards. This approach offers flexibility because different models may remain in use when a provider can demonstrate data quality, validation, suitability, explainability, human oversight, and redress. A process-based approach also prevents courts or regulators from directly substituting their own commercial credit judgment. Review focuses on the reasonableness of the method and compliance with legal duties rather than on a judge constructing a new credit score.

b. Six Procedural Duties of Providers

The proposed model contains six procedural duties. First, the data-governance duty requires the provider to map the source, processing ground, purpose, retention period, quality, and updating mechanism for every data category. Data capable of producing sensitive proxies must be tested for relevance.



Information obtained from financial-information systems, alternative rating providers, and commercial partners must be connected to a correction mechanism. When a consumer proves that data are inaccurate, the provider must cease relying on those data in subsequent decisions and examine their effect on decisions already made.³⁷³⁸³⁹

Second, the validation and fairness-testing duty requires testing before deployment, after a material change, and periodically. Validation should cover accuracy, stability, error rates, calibration, population suitability, resilience to behavioural change, and effects on consumer groups. A single fairness metric is not appropriate for every purpose. The provider should select a metric connected to the legal risk and product characteristics, explain the adopted trade-offs, and define thresholds for corrective action. Empirical evidence indicates that disparities can be reduced at a limited performance cost when testing is incorporated from the development stage.⁴⁰⁴¹⁴²

Third, the layered-explainability duty provides a first layer for consumers in plain language, a second layer for compliance, internal audit, and risk-management functions containing more detailed technical information, and a third protected layer for regulators, experts, or dispute-resolution forums. This structure avoids two extremes: a generic explanation that has no practical value and a demand to disclose the entire system. The consumer-facing explanation must be consistent with the technical log so that the stated reasons can be verified.⁴³⁴⁴

³⁷ Laura Blattner and Scott Nelson, "How Costly Is Noise? Data and Disparities in Consumer Credit," *Econometrica* 89, no. 6 (2021): 2607–41, <https://doi.org/10.3982/ECTA18280>.

³⁸ Mikella Hurley and Julius Adebayo, "Credit Scoring in the Era of Big Data," *Yale Journal of Law and Technology* 18 (2017): 148–216.

³⁹ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 22 Tahun 2023*, art. 19 and the complaint-service provisions.

⁴⁰ Nikita Kozodoi, Johannes Jacob, and Stefan Lessmann, "Fairness in Credit Scoring: Assessment, Implementation and Profit Implications," *European Journal of Operational Research* 297, no. 3 (2022): 1083–94, <https://doi.org/10.1016/j.ejor.2021.06.023>.

⁴¹ Robert Bartlett, Adair Morse, Richard Stanton, and Nancy Wallace, "Consumer-Lending Discrimination in the FinTech Era," *Journal of Financial Economics* 143, no. 1 (2022): 30–56, <https://doi.org/10.1016/j.jfineco.2021.05.047>.

⁴² Christophe Hurlin, Christophe Pérignon, and Sébastien Saurin, "The Fairness of Credit Scoring Models," working paper, 2022, arXiv:2205.10200.

⁴³ Michael Bucker, Gero Szepannek, Alicja Gosiewska, and Przemysław Biecek, "Transparency, Auditability, and Explainability of Machine Learning Models in Credit Scoring," *Journal of the Operational Research Society* 73, no. 1 (2022): 70–90, <https://doi.org/10.1080/01605682.2021.1922098>.

⁴⁴ Margot E. Kaminski, "The Right to Explanation, Explained," *Berkeley Technology Law Journal* 34, no. 1 (2019): 189–218.



Fourth, meaningful human review requires the reviewing officer to obtain relevant data, understand the decision factors, request additional documents, and possess authority to alter the outcome. Review is not meaningful when an officer merely reruns the model or remains bound by the automated result without discretion to correct it. The time limit should correspond to the impact. A rejection concerning an ordinary consumer transaction may be reviewed within several working days, while an error triggering collection, adverse reporting, or facility blocking requires temporary suspension of the disputed effect until the review is completed.

Fifth, the documentation and audit duty requires an inventory of models, intended uses, risk owners, training data, validation results, current versions, decision thresholds, changes, incidents, complaints, and corrective actions. At the individual level, a log should permit reconstruction of the data used, model version, score, business rules, principal reasons, and human interventions. Technology-risk frameworks treat mapping, measurement, management, and governance as connected functions. Documentation makes those functions verifiable, particularly when models change rapidly.⁴⁵⁴⁶

Sixth, third-party governance requires vendor contracts to provide audit rights, log access, notice of model changes, security standards, correction duties, dispute assistance, and allocation of responsibility. A provider should not accept a vendor's trade-secret claim as a reason for failing to meet duties owed to consumers or regulators. If a vendor refuses to supply the minimum evidence required for review, the model is unsuitable for high-impact decisions. Primary responsibility remains with the provider, while contribution between commercial actors may be resolved through contract and their respective degrees of fault.⁴⁷⁴⁸

⁴⁵ Republic of Indonesia, *Peraturan Pemerintah Nomor 71 Tahun 2019 tentang Penyelenggaraan Sistem dan Transaksi Elektronik*, Lembaran Negara Republik Indonesia Tahun 2019 Nomor 185, Tambahan Lembaran Negara Republik Indonesia Nomor 6400.

⁴⁶ National Institute of Standards and Technology, *Artificial Intelligence Risk Management Framework (AI RMF 1.0)*, NIST AI 100-1 (Gaithersburg, MD: NIST, 2023), <https://doi.org/10.6028/NIST.AI.100-1>.

⁴⁷ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 32 Tahun 2025*, provisions on cooperation with other parties and provider responsibility.

⁴⁸ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 22 Tahun 2023*, art. 10(1), including conduct by a third party acting for or representing a financial-services business.



c. Evidentiary Presumptions and Forms of Redress

The proposed evidentiary presumption operates in stages. A consumer must identify an adverse decision, actual or reasonably foreseeable loss, and an initial indication of procedural failure. The indication may consist of inconsistent data, non-specific reasons, denial of correction access, misalignment between repayment capacity and a limit, or a pattern of uneven effects. The provider must then demonstrate compliance through logs and documents. Failure to produce evidence that should have been retained creates a presumption of breach of procedural duty and causal connection. The provider remains entitled to rebut that presumption with convincing alternative evidence.

Redress should first restore the consumer's position. Available measures include correction or deletion of inaccurate data, reassessment by a human officer, restoration of a limit when its reduction was unlawful, suspension of collection while core data are disputed, correction of adverse reporting, reimbursement of fees or penalties, and compensation for proven material and non-material loss. An order to approve credit will not always be appropriate because risk conditions may change and the creditor retains authority to assess creditworthiness. The provider may, however, be required to conduct a new assessment using accurate data and a compliant process.

Individual redress should be accompanied by systemic correction when complaints indicate a widespread model error. The provider must identify other decisions affected by the same model version or data source, notify affected consumers, conduct reassessments, and report corrective measures to OJK. Where loss is widespread, OJK may use market-conduct supervision, written orders, administrative sanctions, or consumer-protection litigation. OJK's authority to bring a claim strengthens the possibility of redress in cases that are difficult to address through individual proceedings.⁴⁹⁵⁰

⁴⁹ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 38 Tahun 2025 tentang Gugatan oleh Otoritas Jasa Keuangan untuk Pelindungan Konsumen di Sektor Jasa Keuangan*.

⁵⁰ Republic of Indonesia, *Undang-Undang Nomor 4 Tahun 2023 tentang Pengembangan dan Penguatan Sektor Keuangan*, Lembaran Negara Republik Indonesia Tahun 2023 Nomor 4, Tambahan Lembaran Negara Republik Indonesia Nomor 6845.



Application of the model should remain proportionate. A simple model with limited effects does not require the same documentation burden as a system determining millions of decisions. Supervisory intensity may correspond to user numbers, financing value, degree of automation, data types, complaint levels, and the likelihood of discriminatory effects. Proportionality cannot remove the minimum duties. Every adverse decision still requires lawful data, useful reasons, access to correction, and an officer capable of assessing an objection. Proportionality regulates the depth of control rather than eliminating consumer rights.

d. Regulatory Direction for the Financial Services Authority

OJK should issue technical rules on the governance of algorithmic BNPL decisions. The requirements may be placed in implementing guidance on consumer protection and technology-risk management so that they apply consistently to banks and finance companies. Minimum content should include system-risk classification, pre-deployment impact assessment, a model inventory, data requirements, independent validation, fairness testing, change monitoring, minimum reasons for decisions, human-review procedures, log retention, vendor management, incident reporting, and complaint handling.

An impact-assessment format should connect a business objective with its legal effects. The provider should identify which decisions are automated, the data used, potentially affected groups, performance and fairness metrics, acceptable errors, mitigation measures, and the justification for selecting a particular model. The board of directors should approve the use of a high-risk system and receive periodic reports. Compliance and consumer-protection functions should participate from the design stage rather than after product launch. Independent validation may be performed by a separate unit or an external party, but ultimate responsibility remains with the provider.

An explanation standard may use a template while preserving room for adaptation. An adequate reason could state: “The application was rejected because the verified ratio of total instalments to income exceeded the policy threshold and the SLIK record showed an active delinquency as of the specified date.” The



consumer should then be able to examine the income source and delinquency data, upload evidence, and request review. The statement “the internal score was not passed” is inadequate because it identifies no factor capable of verification. The rules should also prohibit random reason lists that do not correspond to the actual decisive factors.

Supervision can use complaint data and thematic testing. OJK may request samples of decisions, compare consumer-facing reasons with technical logs, test outcome consistency, examine reversal rates after human review, and assess effects on particular groups. A high reversal rate, inconsistent reasons, or increasing complaints after a model update should trigger examination. This method is more effective than reviewing policy documents without testing actual decisions.

A measurable liability model also provides certainty for industry. Providers know which evidence must be retained and which conditions may trigger liability. Innovation remains permissible within a clear line of accountability. Consumers gain a correction pathway without first proving the model’s internal structure. Regulators obtain a proportionate audit basis. This arrangement preserves BNPL as rapid financing while preventing speed from becoming a reason to reduce care, transparency, and redress.

D. Conclusion

Algorithmic BNPL credit decisions are attributable to the commercial bank or finance company operating the product. Liability arises when consumer loss is connected to breach of a procedural duty, including the use of unlawful or inaccurate data, an unsuitable affordability assessment, an unvalidated model or one producing unjustified disparities, meaningless reasons, unavailable human review, deficient documentation, or negligent oversight of a third party. This liability is not strict liability for every rejection or credit loss. The consumer must still identify an adverse decision, reasonably ascertainable loss, and an initial indication of procedural failure. Once that threshold is met, the provider bears the burden of producing evidence under its control. Redress should include data correction, reassessment, cessation of an improper effect, correction of credit records, reimbursement, and proportionate compensation. OJK should establish BNPL



algorithmic-governance rules covering impact assessment, validation, fairness testing, layered explanation, human review, decision logs, vendor governance, and systemic correction. Such rules would close the gap between existing consumer-protection norms and the technical proof required for automated credit decisions.

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