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Breach of Contract in Electronic Agreements in the Digital Era: An Indonesian Civil Law Perspective

Suwarti^{1*}, Muhammad Ridho Al Fatir²

^{1, 2} Faculty of Law, Universitas Khairun, Ternate, Indonesia

Article Info	Abstract
Keywords: <i>Breach of Contract;</i> <i>Electronic Agreements;</i> <i>Indonesian Civil Law;</i> <i>Digital Transactions;</i> <i>Legal Protection.</i> Received : 31 May 2026 Revised : 23 July 2026 Accepted : 27 July 2026 *Corresponding author: suwarti@unkhair.ac.id  10.63288/jlc.v2i2.24	<i>Rapid advances in information and communication technology have fundamentally transformed legal relationships in various forms of digital transactions. While electronic contracts offer greater efficiency, flexibility, and convenience, they also give rise to increasingly complex legal issues, particularly those related to breaches of contractual obligations in the digital ecosystem. This study examines the various forms of breach of contract in electronic agreements in the digital era and evaluates the legal protection available to contracting parties under Indonesian civil law. Employing a normative legal research method, the study applies statutory, conceptual, and analytical approaches. The analysis is based on primary, secondary, and tertiary legal materials collected through library research and examined using a qualitative-descriptive approach. The findings demonstrate that breaches of contract in electronic agreements retain the fundamental characteristics of conventional contractual breaches, including non-performance, delayed performance, defective performance, and conduct inconsistent with contractual obligations. Nevertheless, the increasing complexity of digital transactions has broadened the potential scope of contractual breaches due to the involvement of digital platforms, electronic system providers, payment service providers, and other technological intermediaries. Indonesian civil law, together with legislation governing electronic transactions, establishes both preventive and repressive mechanisms for legal protection. However, significant challenges remain regarding electronic evidence, the allocation of legal responsibility, dispute resolution, and the enforcement of judicial decisions. Accordingly, strengthening the regulatory framework, promoting legal harmonization, and developing adaptive dispute resolution mechanisms are essential to enhancing legal certainty and ensuring effective legal protection within Indonesia's digital transaction ecosystem.</i>

A. Introduction

The rapid evolution of information and communication technology (ICT) has profoundly transformed social, economic, and legal interactions. Digitalization has shifted legal relationships that were traditionally conducted through face-to-face interactions toward electronically mediated transactions supported by sophisticated information systems.¹ One of the most significant manifestations of this transformation is the widespread adoption of electronic agreements across diverse sectors, including electronic commerce, digital services, financial technology, and other forms of online commercial activity.² Electronic agreements

¹ Niswatu Filmadina et al., "Pengembangan Hukum Perjanjian Dalam Era Digitalisasi Di Ekonomi Indonesia," *Rnal Ilmu Sosial & Hukum Al-Zayn: Jurnal Ilmu Sosial & Hukum* 3, no. 5 (2025): 5889–98, <https://doi.org/10.61104/alz.v3i5.2197>.

² Abdul Halim Barkatullah, *Hukum Transaksi Elektronik Di Indonesia: Sebagai Pedoman Dalam Menghadapi Era Digital Bisnis e-Commerce Di Indonesia*, Cet. II (Bandung: Nusamedia, 2019).



have become an indispensable legal instrument within the digital economy because they facilitate transactions that are more efficient, flexible, accessible, and time-effective while eliminating many geographical and temporal constraints.³ As digital commerce continues to expand, electronic agreements increasingly constitute the legal foundation upon which contemporary commercial relationships and economic activities are established.

The growing reliance on electronic agreements has simultaneously increased the likelihood of legal disputes arising within the digital environment. Like conventional contracts, electronic agreements create reciprocal rights and obligations that are legally binding upon the contracting parties.⁴ However, the distinctive characteristics of digital transactions—including the absence of direct physical interaction, the extensive use of automated systems, and substantial dependence on technological infrastructure—introduce legal risks that are considerably more complex than those associated with traditional contractual relationships. In practice, disputes frequently arise from delayed performance, the delivery of goods or services that fail to conform to contractual specifications, unilateral cancellation of transactions, failures of electronic systems, and non-payment of contractual obligations.⁵ These developments demonstrate that technological innovation has not eliminated the possibility of contractual breach; instead, it has transformed the ways in which contractual non-performance occurs, thereby creating new legal challenges that require more adaptive and responsive legal solutions.

From a normative perspective, electronic agreements have acquired a well-established legal basis within the Indonesian legal system. Their validity remains subject to the requirements set forth in Article 1320 of the Indonesian Civil Code, which prescribes the essential elements of a valid contract, while Article 1338 embodies the principle of *pacta sunt servanda*, under which legally concluded agreements are binding upon the parties as law. Legal recognition of electronic transactions and electronic documents has been further reinforced by Law Number 11 of 2008 concerning Electronic Information and Transactions, as most recently amended by Law Number 1 of 2024, Government Regulation Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions, and Government Regulation Number 80 of 2019 concerning Trading Through Electronic Systems. Collectively, these regulatory instruments illustrate the Indonesian government's continuing efforts to accommodate the rapid expansion of digital transactions through an adaptive legal framework.

Despite the existence of a relatively comprehensive regulatory framework, the practical implementation of legal protection in electronic transactions continues to face significant challenges. Breach-of-contract disputes frequently expose limitations in the effectiveness of existing legal mechanisms. Difficulties associated with authenticating electronic evidence, the widespread use of standard-form contracts by digital business actors, unequal bargaining

³ Aurel Nathalia Buana Putri et al., "Wanprestasi Pada Era Digital: Tanggung Jawab Hukum Dalam Perjanjian Berbasis Elektronik," *Journal of Artificial Intelligence and Digital Business (RIGGS)* 5, no. 2 (2026): 186–93, <https://doi.org/10.31004/riggs.v5i2.8346>.

⁴ Gst. Ngr. Pt. Arya Kusuma Wijaya et al., "Analisis Yuridis Wanprestasi Dalam Perjanjian Elektronik Di Platform E-Commerce Berdasarkan Undang-Undang Nomor 8 Tahun 1999," *Al-Zayn: Jurnal Ilmu Sosial & Hukum* 3, no. 6 (2025): 8248–56, <https://doi.org/10.61104/alz.v3i5.2398>.

⁵ Muhammad April Mubarak and Herry Febriadi, "Perlindungan Hukum Konsumen Dalam Transaksi E-Commerce Di Indonesia Tahun 2025," *PESHUM: Jurnal Pendidikan, Sosial Dan Humaniora* 5, no. 2 (2026): 4775–81, <https://doi.org/10.56799/peshum.v5i2.14272>.

positions between contracting parties, limited public awareness of legal rights, and the underdevelopment of electronic dispute resolution mechanisms all demonstrate the persistent gap between normative regulation and practical enforcement.⁶ These circumstances indicate that the mere existence of legislation is insufficient to guarantee legal certainty and effective legal protection within an increasingly sophisticated digital transaction environment.⁷

Previous studies have examined various dimensions of electronic transactions, including the validity of electronic contracts, consumer protection in electronic commerce, the evidentiary status of electronic documents, and the role of the Electronic Information and Transactions Law in supporting Indonesia's digital economy. Other scholars have also explored legal protection for users of digital platforms and dispute resolution mechanisms arising from electronic transactions.⁸ Nevertheless, in most of these studies, breach of contract has been addressed only as a subsidiary issue within broader discussions of electronic commerce and digital transactions. Consequently, limited scholarly attention has been devoted to a comprehensive examination of the evolving forms of contractual breach in the digital era and the adequacy of legal protection available under Indonesian civil law. This gap provides a compelling justification for further legal inquiry.

This article seeks to address that gap by presenting an integrated analysis of breach of contract in electronic agreements within Indonesia's contemporary digital ecosystem. Unlike earlier studies that primarily focus on the validity of electronic contracts or consumer protection, this research specifically examines the legal characteristics of contractual breaches in electronic agreements while critically evaluating the adequacy of existing legal protection through the combined perspectives of civil law, electronic transaction law, and technological development. The principal contribution of this study lies in its effort to develop a more comprehensive civil law framework that connects traditional doctrines of contractual liability with the emerging legal complexities arising from digital transactions involving multiple technological actors and interconnected electronic systems.

Accordingly, this study aims to analyze the various forms of breach of contract arising in electronic agreements within the digital era and to evaluate the legal protection available to contracting parties under Indonesian civil law. It is expected that the findings will contribute to the advancement of civil law scholarship relating to electronic transactions while providing practical insights for policymakers, legal practitioners, judicial authorities, and participants in digital commerce in strengthening legal certainty and enhancing legal protection within Indonesia's rapidly evolving digital economy.

B. Methodology

This study adopts a normative legal research design to examine legal issues concerning breaches of contract in electronic agreements and the legal protection afforded to contracting parties under Indonesian civil law. Normative legal research focuses on the analysis of legal

⁶ Wijaya et al., "Analisis Yuridis Wanprestasi Dalam Perjanjian Elektronik Di Platform E-Commerce Berdasarkan Undang-Undang Nomor 8 Tahun 1999."

⁷ Alfa Abdul Halim, Muhamad Taufik La Ode, and Iyam Irahmatni Kaharu, "Penggunaan Klausula Eksonerasi Dalam Perjanjian Baku Leasing Kendaraan," *De Jure: Jurnal Ilmiah Ilmu Hukum* 5, no. 2 (2024): 110–25, <https://doi.org/10.33387/dejure.v5i2.9147>.

⁸ Fathya Aprilianti and Amoury Adi Sudiro, "Keseimbangan Para Pihak Dalam Kontrak Elektronik (E-Contract)," *Jurnal Hukum POSITUM* 8, no. 2 (2023): 276–98, <https://doi.org/10.35706/positum.v8i2.10898>.

norms, principles, doctrines, and regulatory frameworks governing specific legal issues.⁹ To achieve the objectives of this study, three complementary research approaches are employed, namely the statutory approach, the conceptual approach, and the analytical approach. The statutory approach is applied to examine the legislative framework governing contractual relationships and electronic transactions, particularly the Indonesian Civil Code, Law Number 11 of 2008 concerning Electronic Information and Transactions, as most recently amended by Law Number 1 of 2024, together with other relevant implementing regulations. The conceptual approach is used to analyse the legal concepts of breach of contract, legal protection, legal certainty, and electronic agreements in light of prevailing legal doctrines and theoretical perspectives. Meanwhile, the analytical approach serves to evaluate the adequacy and effectiveness of the existing legal framework in addressing legal issues arising from electronic transactions within the contemporary digital environment.

The legal materials employed in this study consist of primary, secondary, and tertiary legal sources. Primary legal materials include statutes and regulations governing electronic agreements and contractual obligations under Indonesian civil law. Secondary legal materials comprise scholarly books, peer-reviewed journal articles, research reports, and other authoritative legal literature relevant to the subject of this study. Tertiary legal materials include legal dictionaries, encyclopaedias, and other supporting reference materials.¹⁰ All legal materials were collected through library research and subsequently analysed using a qualitative-descriptive method. The analysis was conducted through legal interpretation and systematic legal reasoning to identify the forms of breach of contract in electronic agreements and to evaluate the effectiveness of legal protection available to parties engaged in digital transactions in Indonesia.

C. Results and Discussion

Forms of Breach of Contract in Electronic Agreements in the Digital Era

Digital transformation has fundamentally reshaped civil law relationships by shifting conventional transactions toward technology-mediated legal interactions. As a consequence, electronic agreements have become increasingly prevalent across e-commerce platforms, online marketplaces, financial technology (fintech) services, application-based business models, and digital payment systems.¹¹ Although such agreements are concluded through electronic media rather than conventional means, their legal validity and enforceability continue to be governed by the general principles of Indonesian contract law. In particular, the Indonesian Civil Code remains the principal legal framework regulating the validity of agreements, the binding effect of contracts, and civil liability arising from contractual non-performance.

Electronic agreements constitute legally enforceable commitments formed through electronic systems and are capable of producing legal consequences equivalent to those arising from conventional contracts. Their juridical validity is expressly recognized under

⁹ I Made Pasek Diantha, *Metodologi Penelitian Hukum Normatif Dalam Justifikasi Teori Hukum* (Jakarta: Prenada Media Group, 2017).

¹⁰ Johnny Ibrahim, *Teori Dan Metodologi Penelitian Hukum Normatif* (Malang: Bayumedia, 2006).

¹¹ Edrick Edwardina Effendy, "Keabsahan Perjanjian Elektronik Yang Termuat Dalam Peraturan Pemerintah Nomor 80 Tahun 2019 Tentang Perdagangan Melalui Sistem Elektronik," *Notary Journal* 5, no. 1 (2025): 1–21, <https://doi.org/10.19166/nj.v5i1.8241>.

Article 18 of Law Number 11 of 2008 concerning Electronic Information and Transactions, as most recently amended by Law Number 1 of 2024, which provides that electronic contracts are legally binding upon the parties. This statutory recognition confirms that the use of electronic media does not diminish the enforceability of contractual obligations, provided that the essential requirements for a valid agreement under Article 1320 of the Indonesian Civil Code are satisfied.¹² Furthermore, this legal position reflects the doctrine of *pacta sunt servanda* embodied in Article 1338 of the Civil Code, under which agreements lawfully concluded by the parties acquire binding legal force equivalent to law.¹³

The statutory recognition of electronic contracts necessarily implies that any failure to perform contractual obligations falls within the legal framework governing breach of contract under Indonesian civil law. Pursuant to Article 1234 of the Indonesian Civil Code, contractual obligations may require a party to give something, perform a particular act, or refrain from undertaking a specified act. This provision constitutes the principal legal benchmark for assessing whether contractual obligations have been duly performed or breached.¹⁴ Accordingly, contractual breaches arising in electronic transactions remain subject to the same doctrinal principles applicable to conventional contractual relationships. The principal distinction lies not in the legal nature of the obligation itself, but in the digital environment in which contractual performance is executed through interconnected electronic systems, digital platforms, electronic system providers, and supporting technological infrastructure.¹⁵

Under Indonesian civil law doctrine, a breach of contract occurs when a debtor fails to perform an agreed obligation, performs it defectively, performs it beyond the agreed timeframe, or engages in conduct expressly prohibited by the contract. This doctrine derives from Article 1234 of the Indonesian Civil Code, which classifies contractual obligations as obligations to give, to do, or to refrain from doing a particular act.¹⁶ Where such obligations remain unfulfilled, the injured party may seek specific performance, termination of the contract, or compensation for damages pursuant to Article 1243 of the Civil Code.¹⁷ Accordingly, breach of contract constitutes the principal legal basis for determining whether the contractual relationship established between the parties has been violated.

Although the classical doctrine of breach of contract embodied in the Indonesian Civil Code remains fully applicable to electronic agreements, digital transformation has significantly altered the factual context in which contractual non-performance occurs. Unlike conventional contractual relationships that typically involve only creditors and debtors, electronic transactions operate within an interconnected digital ecosystem comprising platform operators, payment service providers, electronic system providers, logistics companies, and various other technological intermediaries. Consequently, contractual breach should no longer

¹² Zidna Ilma Nafi'a and Ery Agus Priyono, "Perkembangan Hukum Perjanjian Di Era Digital: Tinjauan Atas Kontrak Elektronik," *JIHHP: Jurnal Ilmu Hukum, Humaniora Dan Politik* 5, no. 4 (2025): 3327–33, <https://doi.org/10.38035/jihhp.v5i4>.

¹³ Subekti, *Pokok-Pokok Hukum Perdata* (Jakarta: Intermasa, 2014).

¹⁴ Wasti Emma Mandacan, Dientje Rumimpunu, and Fonny Tawas, "Akibat Hukum Dari Wanprestasi Dalam Kontrak Perjanjian Hukum Perdata Indonesia," *Lex Crimen* 14, no. 2 (2025): 1–13, <https://ejournal.unsrat.ac.id/v3/index.php/lexcrimen/article/view/65033>.

¹⁵ Edmon Makarim, *Pengantar Hukum Telematika: Suatu Kompilasi Kajian* (Jakarta: PT RajaGrafindo Persada, 2005).

¹⁶ Mariam Darus Badruzaman, *KUHPerdata Buku III: Hukum Perikatan Dengan Penjelasan*, Cet. II (Bandung: Alumni, 2006).

¹⁷ I Ketut Oka Setiawan, *Hukum Perikatan*, Ed. Cet. K (Jakarta: Sinar Grafika, 2018).

be understood solely as a bilateral failure to perform contractual obligations but must also be examined in light of the interaction among multiple actors participating in the digital transaction ecosystem. This development does not modify the fundamental doctrine of breach of contract; rather, it requires a broader interpretation of contractual liability and the allocation of legal responsibility within increasingly complex digital contractual relationships.

In electronic transactions, breaches of contract manifest in a wider range of factual circumstances than those commonly encountered in conventional contractual relationships. Sellers may fail to deliver goods after receiving payment, supply products that do not conform to the agreed specifications, or provide goods that are defective or damaged.¹⁸ Conversely, consumers may breach their contractual obligations by failing to complete payment within the agreed period or by improperly using digital payment facilities.¹⁹ Contractual breaches may also arise from the conduct of electronic system providers, particularly where they fail to maintain system availability, suspend services without lawful justification, or neglect contractual commitments relating to data protection, privacy, and information security.²⁰

These developments demonstrate that contractual breaches in electronic agreements can no longer be understood solely within the traditional framework of bilateral relationships between sellers and buyers. Contemporary digital transactions involve multiple participants, including digital platforms, payment service providers, logistics operators, cloud computing providers, and other technological intermediaries that facilitate contractual performance.²¹ Consequently, contractual liability has become increasingly interconnected, as the failure of a single participant may disrupt the performance of obligations throughout the entire digital transaction chain.

The legal status of each participant within the digital transaction ecosystem must be clearly distinguished when determining the allocation of contractual liability. As the principal contracting parties, sellers and consumers acquire reciprocal rights and obligations directly from the electronic agreement. By contrast, digital platforms, payment service providers, logistics companies, and electronic system providers generally perform intermediary or supporting functions that are governed by their respective contractual and statutory responsibilities. Accordingly, the legal consequences of a contractual dispute depend not only upon the existence of contractual non-performance but also upon the legal capacity, functional role, and scope of responsibility attributable to each participant within the digital transaction ecosystem.

From the perspective of causation, contractual breaches in electronic agreements may originate from either technical or non-technical factors. Technical failures are closely associated with the technological infrastructure supporting digital transactions. These include server outages, payment system disruptions, software defects (bugs), internet connectivity

¹⁸ Kriffirgy Valian Genias et al., "Wanprestasi Dalam Jual Beli Online: Solusi Hukum Dan Perlindungan Konsumen," *Kultura: Jurnal Ilmu Hukum, Sosial Dan Humaniora* 2, no. 11 (2024): 415–29.

¹⁹ Wijaya et al., "Analisis Yuridis Wanprestasi Dalam Perjanjian Elektronik Di Platform E-Commerce Berdasarkan Undang-Undang Nomor 8 Tahun 1999."

²⁰ Tesalonica Heavenly Lasut, Rory Jeff Akyuwen, and Sarah Selfina Kuahaty, "Pembatalan Sepihak Oleh Penjual Dalam Perjanjian Jual Beli Online," *Tatohi: Jurnal Ilmu Hukum* 4, no. 7 (2024): 546–53, <https://doi.org/10.47268/tatohi.v4i7.2463>.

²¹ Arum Fatmawati and Budi Hermono, "Perlindungan Hukum Atas Data Pengguna Oleh Penyedia Layanan Cloud Computing Ditinjau Dari Undang-Undang Nomor 11 Tahun 2008 Tentang Informasi Dan Transaksi Elektronik," *Novum: Jurnal Hukum* 3, no. 3 (2016): 1–10, <https://doi.org/10.2674/novum.v3i3.17895>.

failures, cybersecurity incidents, and interoperability problems among interconnected digital platforms, all of which may delay or even prevent contractual performance.²² Because the execution of contractual obligations in digital commerce depends heavily on the reliability, availability, and security of electronic systems, technological failures have become an increasingly significant source of contractual disputes.²³

Nevertheless, not every technical disruption should automatically be classified as a breach of contract. Whether contractual liability arises depends upon whether the failure is legally attributable to the contracting party or instead results from external circumstances beyond that party's reasonable control. Accordingly, any legal assessment should carefully consider the allocation of contractual risk, the existence of fault, and the possible application of force majeure or intermediary liability principles before concluding that a breach of contract has occurred.

Not all contractual failures in electronic transactions originate from technological deficiencies. Human error continues to represent one of the most significant causes of contractual non-performance within the digital environment. Errors in entering transactional data, inadequate understanding of electronic payment procedures, negligence in verifying transactions, and deficient customer service practices may all prevent parties from properly performing their contractual obligations.²⁴ In such circumstances, the determination of contractual liability should be guided by the civil law principles of prudence and good faith, both of which constitute fundamental standards governing contractual performance.²⁵

Indonesian civil law traditionally classifies breaches of contract into four principal categories: complete non-performance, defective performance, delayed performance, and the commission of acts expressly prohibited by the agreement.²⁶ This doctrinal classification remains fully applicable to electronic agreements because the use of digital media does not alter the legal substance of contractual rights and obligations.²⁷ Accordingly, the existence of a contractual breach must continue to be assessed on the basis of the contractual terms, evidence of performance, and proof of actual loss suffered by the injured party. Consequently, clear, comprehensive, and well-documented electronic agreements assume a particularly important role in establishing contractual liability when disputes arise.²⁸

Although the four classical categories of breach of contract continue to provide the principal doctrinal framework for assessing contractual non-performance under Indonesian civil law, their practical application within electronic agreements has become considerably more complex. The integration of digital platforms, electronic system providers, payment service providers, logistics companies, and other technological intermediaries has broadened

²² Syabillah Aulia Jamal et al., "Perlindungan Dan Pertanggungjawaban Hukum Pada Dompot Digital (Dana) Terhadap Konsumen," *Jurnal Transformasi Hukum Dan Keadilan Sosial* 10, no. 1 (2026): 52–60, <https://journal.fexaria.com/j/index.php/jthks/article/view/846>.

²³ Makarim, *Pengantar Hukum Telematika: Suatu Kompilasi Kajian*.

²⁴ Andi Ghaida Tsuraya Adinda, Muhammad Rinaldy Bima, and Anggreany Arief, "Urgensi Penguatan Regulasi Dan Pengawasan Dompot Digital Sebagai Upaya Perlindungan Konsumen Mahasiswa Di Kota Makassar," *Dialogica* 11, no. 2 (2026): 1–13, <https://jurnal.fh.umi.ac.id/index.php/legal/article/view/2422>.

²⁵ Muhammad Riandi Nur Ridwan and Yana Sukma Permana, "Wanprestasi Dan Akibatnya Dalam Pelaksanaan Perjanjian," *Jurnal Ilmu Hukum "THE JURIS"* 6, no. 2 (2022): 441–51, <https://doi.org/10.56301/juris.v6i2.616>.

²⁶ Subekti, *Hukum Perjanjian* (Jakarta: Intermasa, 2008).

²⁷ Niru Anita Sinaga and Nurlely Darwis, "Wanprestasi Dan Akibatnya Dalam Pelaksanaan Perjanjian," *Jurnal Mitra Manajemen* 7, no. 2 (2015): 43–57, <https://doi.org/10.35968/jmm.v7i2.534>.

²⁸ Putri et al., "Wanprestasi Pada Era Digital: Tanggung Jawab Hukum Dalam Perjanjian Berbasis Elektronik."

the factual circumstances in which contractual breaches may arise without altering the underlying legal classification established by civil law. To illustrate this development, the following comparative analysis demonstrates how the classical doctrine of breach of contract is applied within contemporary digital transactions while highlighting the evolving characteristics of contractual liability in an interconnected digital ecosystem.

Table Comparative Application of the Classical Doctrine of Breach of Contract in Conventional Contracts and Electronic Agreements within Indonesia's Digital Ecosystem

Classical Doctrine	Conventional Contract	Electronic Agreement
Failure to perform	Goods are not delivered	Failure may result from sellers, digital platforms, or payment systems.
Delayed performance	Late delivery	Delay may occur due to server disruption, system failure, or logistics integration.
Defective performance	Defective goods	Defective digital services, inaccessible platforms, or corrupted electronic systems.
Prohibited acts	Violation of contractual clauses	Unauthorized data processing, misuse of digital accounts, or unlawful electronic actions.

The comparison demonstrates that the classical categories of breach of contract remain conceptually applicable to electronic agreements. Digital transformation has not created new legal categories of contractual breach; rather, it has expanded the factual circumstances in which traditional categories operate through the involvement of technological intermediaries and digitally mediated contractual performance. Consequently, the principal legal development lies in the increasingly complex allocation of contractual liability within the digital ecosystem rather than in any substantive modification of the classical doctrine itself.

A further challenge arises from the rapid pace of technological innovation, which frequently outstrips the ability of legal regulation to adapt. Although Indonesia has established a regulatory framework through the Electronic Information and Transactions Law and its implementing regulations, existing legal instruments have not yet fully accommodated the increasingly complex issues of contractual liability arising within digital ecosystems, particularly where electronic platforms perform intermediary functions.^{29; 30} As a consequence, uncertainty persists regarding the allocation of legal responsibility among business actors, electronic system providers, payment service providers, and consumers when technological failures or transactional disruptions result in economic loss.

From the perspective of consumer protection, Law Number 8 of 1999 concerning Consumer Protection establishes an important statutory foundation for safeguarding consumers' rights to safety, security, comfort, and legal certainty in the use of goods and services. Where contractual losses arise in electronic transactions, business actors may incur

²⁹ Rabith Madah Khulaili Harsya, "Tinjauan Yuridis Terhadap Tanggung Jawab Platform Digital Atas Konten Ilegal Menurut Hukum Indonesia," *Sanskara Hukum Dan HAM* 4, no. 1 (2025): 276–86, <https://doi.org/10.58812/shh.v4.i01>.

³⁰ Avis Audiawati, "Tanggung Jawab Hukum Pelaku Usaha Platform Digital Terhadap Perlindungan Konsumen Dalam Ekosistem E-Commerce Di Indonesia," *Al-Madaaris* 4, no. 2 (2026): 7881–92, <https://doi.org/10.61104/alz.v4i2.5832>.

liability not only under the Indonesian Civil Code but also pursuant to consumer protection legislation.³¹ Consequently, contractual remedies and statutory consumer protection mechanisms should be viewed as complementary legal instruments designed to provide more effective legal protection within the digital marketplace.³²

The remedies available under the Indonesian Civil Code and the Consumer Protection Law should therefore be interpreted as complementary rather than mutually exclusive legal regimes. Whereas the Civil Code primarily regulates contractual obligations and the legal consequences of breach, the Consumer Protection Law establishes additional statutory safeguards intended to prevent unfair commercial practices and protect consumers against economic loss. Accordingly, where the injured party qualifies as a consumer, both legal regimes may operate concurrently to provide broader and more effective legal protection.

Evidentiary issues constitute another significant challenge in disputes arising from electronic agreements. Article 5 of the Electronic Information and Transactions Law expressly recognizes electronic information and electronic documents as legally admissible evidence. Nevertheless, practical implementation continues to present considerable challenges, particularly with respect to document authentication, data integrity, cybersecurity, the legal validity of electronic signatures, and the risk of digital manipulation.³³ These issues demonstrate the continuing need to harmonize conventional civil evidentiary principles with the electronic evidence regime established under the Electronic Information and Transactions Law in order to strengthen legal certainty in technology-related disputes.

In practice, disputes commonly involve electronic communications, digital transaction records, payment histories, system-generated logs, and certified electronic signatures submitted to establish contractual performance or non-performance. Indonesian courts have increasingly accepted such electronic records as admissible evidence pursuant to Article 5 of the Electronic Information and Transactions Law. Nevertheless, questions concerning authenticity, integrity, reliability, and evidentiary weight continue to play a decisive role in judicial assessment. Accordingly, effective legal protection depends not only upon substantive contract law but also upon the credibility and reliability of electronic evidentiary mechanisms.

The increasing complexity of electronic transactions likewise underscores the strategic role of judges in adapting traditional civil law principles to technological developments. As law finders (*rechtsvinding*), judges are required to bridge the gap between rapidly evolving digital practices and established legal doctrine through progressive and contextual legal interpretation.³⁴ Such an adaptive judicial approach enables electronic documents to function

³¹ Melani Putri Adelia, Maharani Putri Adelia, and Yundira Kamini Zahra, "Perlindungan Konsumen Dalam Transaksi Elektronik Di Indonesia," *Journal of Economic and Management (JEM) Terekam Jejak* 2, no. 1 (2025): 1–13, <https://journal.terekamjejak.com/index.php/jem/article/view/232>.

³² Yanci Libria Fista, Aris Machmud, and Suartini, "Perlindungan Hukum Konsumen Dalam Transaksi E-Commerce Ditinjau Dari Perspektif Undang-Undang Perlindungan Konsumen," *Binamulia Hukum* 12, no. 1 (2023): 177–89, <https://doi.org/10.37893/jbh.v12i1.599>.

³³ Nurmagrifah Ramadani, Muhammad Haidar, and Aulia Putri Setiono, "Efektivitas Penggunaan Bukti Digital Dalam Pembuktian Perkara Perdata: Analisis Terhadap Integrasi Electronic Evidence Dalam Hukum Acara Perdata Nasional," *JAKSA: Jurnal Kajian Ilmu Hukum Dan Politik* 3, no. 1 (2025): 49–62, <https://doi.org/10.51903/j884b051>.

³⁴ Ludia Panggalo, "Analisis Perkembangan Hukum Perdata Dalam Transaksi Digital: Tanggung Jawab Hukum Dalam E-Commerce Dan Fintech," *Journal of Innovative and Creativity* 5, no. 3 (2025): 35823–28, <https://doi.org/10.31004/joecy.v5i3.5549>.

not only as evidentiary instruments but also as effective mechanisms for protecting the legal rights and interests of parties engaged in digital contractual relationships.³⁵

The effectiveness of dispute resolution mechanisms constitutes another important challenge within the digital economy. Conventional litigation often requires considerable time, financial resources, and procedural complexity, making it less compatible with the speed and efficiency expected in electronic commerce.³⁶ In this context, Online Dispute Resolution (ODR) has emerged as an increasingly relevant mechanism for resolving disputes arising from electronic transactions. By utilizing technology-assisted dispute resolution procedures, ODR has the potential to reduce litigation costs, improve procedural efficiency, and facilitate dispute resolution involving parties located in different jurisdictions.

Finally, the enforcement of civil judgments remains one of the most persistent challenges in ensuring effective legal protection within electronic transactions. Even where judicial decisions have acquired final and binding legal force, successful enforcement frequently encounters practical obstacles, particularly where judgment debtors refuse to comply voluntarily or lack executable assets.³⁷ Consequently, judicial recognition alone cannot guarantee effective legal protection unless it is supported by enforcement mechanisms capable of translating judicial decisions into practical legal remedies.³⁸

This study contributes to the development of Indonesian civil law by demonstrating that digital transformation has not displaced the classical doctrine of breach of contract but has fundamentally reshaped the legal environment within which contractual liability is interpreted and enforced. The principal contribution of this research lies in its conceptualization of breach of contract as a legal issue operating within an interconnected digital ecosystem involving multiple technological actors. Consequently, the allocation of contractual liability requires a broader legal interpretation that extends beyond the traditional bilateral relationship between creditor and debtor.

Based on the foregoing analysis, breach of contract in electronic agreements should no longer be understood merely as a failure to perform contractual obligations. Rather, it encompasses broader legal issues relating to consumer protection, cybersecurity, personal data protection, electronic evidence, and the effectiveness of legal enforcement within the digital economy. Accordingly, strengthening the regulatory framework, improving digital legal literacy, enhancing the reliability of electronic evidentiary systems, and developing adaptive dispute resolution mechanisms constitute essential prerequisites for ensuring legal certainty and effective legal protection within Indonesia's evolving digital transaction ecosystem.

³⁵ Anggita Doramia Lumbanraja, "Urgensi Peran Aktif Hakim Pada Peradilan Tindak Pidana Informasi Elektronik," *CREPIDO: Jurnal Mengenai Dasar-Dasar Pemikiran Hukum* 1, no. 1 (2019): 1–12, <https://doi.org/10.14710/crepido.1.1.1-12>.

³⁶ Fitmar Hebimisa, Nontje Rimbing, and Josina Emilia Londa, "Penegakan Hukum Perjanjian Dalam Kontrak Digital Menurut Undang-Undang Nomor 11 Tahun 2008 Yang Dibaharui Oleh Undang-Undang Nomor 19 Tahun 2016," *Lex Administratum* 10, no. 4 (2022): 1–11, <https://ejournal.unsrat.ac.id/v3/index.php/administratum/article/view/42640>.

³⁷ Ramadani, Haidar, and Setiono, "Efektivitas Penggunaan Bukti Digital Dalam Pembuktian Perkara Perdata: Analisis Terhadap Integrasi Electronic Evidence Dalam Hukum Acara Perdata Nasional."

³⁸ Ramadani, Haidar, and Setiono.

Legal Protection for Parties in Breach of Electronic Agreements under Indonesian Civil Law

The rapid advancement of information technology has fundamentally transformed the manner in which civil legal relationships are created, performed, and enforced. Transactions that were once concluded through direct physical interaction are now increasingly conducted through electronic systems and digital platforms. As a result, legal protection in electronic agreements has become a central concern because it directly influences legal certainty, transactional trust, and the sustainable development of the digital economy. Although electronic agreements are concluded through technological means, they remain civil contracts that establish reciprocal rights and obligations between the contracting parties.³⁹ The principal distinction lies in the medium through which contractual consent is expressed, whereas the substantive principles of contract law continue to apply in the same manner as they do in conventional contractual relationships.

The legal validity of electronic agreements is founded upon Article 1320 of the Indonesian Civil Code, which requires the existence of mutual consent, legal capacity, a definite subject matter, and a lawful cause. These essential elements continue to serve as the primary legal criteria for determining contractual validity, irrespective of whether an agreement is concluded through conventional or electronic means. Their binding force is further affirmed by Article 1338 of the Civil Code, which provides that every lawfully concluded agreement is binding upon the parties as law.⁴⁰ Accordingly, the doctrine of *pacta sunt servanda* remains the fundamental principle underpinning contractual certainty in both conventional and electronic transactions.

Explicit statutory recognition of electronic contracts is provided under Law Number 11 of 2008 concerning Electronic Information and Transactions, as most recently amended by Law Number 1 of 2024. Article 18 expressly confirms that electronic contracts possess legally binding force, provided that they are concluded through reliable electronic systems and satisfy the applicable legal requirements. This statutory recognition places electronic contracts on an equal legal footing with conventional agreements and demonstrates the adaptability of Indonesian law in responding to the continuing expansion of digital commerce and electronic communications.⁴¹

Notwithstanding the existence of a comprehensive legal framework governing electronic agreements, significant practical challenges continue to arise. Disputes concerning contractual breach frequently involve issues relating to electronic evidence, digital identity verification, cybersecurity, and the allocation of legal liability where transactions involve multiple digital service providers and technological intermediaries.⁴² These developments demonstrate that legal protection cannot be achieved solely through the formal recognition of electronic contracts. Rather, effective legal protection also requires enforcement mechanisms

³⁹ Pandam Nurwulan, "Penggunaan Kontrak Elektronik Dalam Bidang Keperdataan," in *Prosiding Seminar Hukum Aktual Fakultas Hukum Universitas Islam Indonesia*, vol. 9 (Yogyakarta: journal.uui.ac.id, 2021), 12–15, <https://journal.uui.ac.id/psha/article/download/34023/16717>.

⁴⁰ Taufik Hidayat Lubis, "Hukum Perjanjian Di Indonesia," *SOSEK: Jurnal Sosial Dan Ekonomi* 2, no. 3 (2022): 177–90, <https://doi.org/10.55357/sosek.v2i3.250>.

⁴¹ Makarim, *Pengantar Hukum Telematika: Suatu Kompilasi Kajian*.

⁴² Ramadani, Haidar, and Setiono, "Efektivitas Penggunaan Bukti Digital Dalam Pembuktian Perkara Perdata: Analisis Terhadap Integrasi Electronic Evidence Dalam Hukum Acara Perdata Nasional."

capable of addressing the distinctive characteristics and risks associated with digital transactions.

The theory of legal protection developed by Philipus M. Hadjon provides an appropriate analytical framework for examining these challenges. According to Hadjon, legal protection is intended to safeguard the rights and interests of legal subjects through both preventive and repressive mechanisms.⁴³ Preventive legal protection is reflected in the establishment of clear legal rules, transparency obligations, balanced contractual arrangements, and the responsibility of electronic system providers to ensure the reliability, availability, and security of their services. By contrast, repressive legal protection is implemented through dispute resolution mechanisms and legal remedies available when contractual obligations are breached or when parties suffer losses resulting from unlawful conduct.⁴⁴

Where a party fails to perform its contractual obligations, Indonesian civil law provides several legal remedies to protect the interests of the injured party. Pursuant to Article 1243 of the Indonesian Civil Code, the aggrieved party is entitled to claim compensation for costs, losses, and interest once a breach of contract has been legally established.⁴⁵ The principal objective of these remedies is to restore, insofar as possible, the injured party to the legal position that would have existed had the contract been duly performed. Depending upon the nature and seriousness of the breach, the available remedies may include compensation for damages, specific performance, termination of the contract, or an appropriate combination of these measures.⁴⁶

Legal protection within electronic transactions is not intended exclusively for consumers. Business actors and digital service providers likewise possess legitimate legal interests that warrant legal protection. Business actors are entitled to receive payment in accordance with contractual terms, obtain protection against bad-faith conduct by consumers, and require the performance of contractual obligations.⁴⁷ Conversely, consumers are entitled to receive goods or services that conform to the agreed specifications, obtain accurate and transparent information, and claim compensation where contractual losses occur.⁴⁸ Maintaining an equitable balance between the rights and obligations of all parties is therefore essential to ensuring fairness and legal certainty within digital contractual relationships.

Disputes arising from breaches of electronic agreements may be resolved through either litigation or alternative dispute resolution mechanisms. Judicial proceedings provide the advantage of producing legally binding decisions that are enforceable through the authority of the state. Accordingly, litigation generally offers a greater degree of legal certainty because its

⁴³ Phillipus M. Hadjon, *Perlindungan Hukum Bagi Rakyat Indonesia* (Surabaya: Bina Ilmu, 1987).

⁴⁴ Zlatan Mori'c et al., "Protection of Personal Data in the Context of E-Commerce," *Journal of Cybersecurity and Privacy* 4, no. 3 (2024): 731–61, <https://doi.org/10.3390/jcp4030034>.

⁴⁵ U. Andre Baharudin, "Tanggung Jawab Wanprestasi Menurut Pasal 1243 KUH Perdata," LBH Cadhas, 2026, <https://lbh-cadhas.com/tanggung-jawab-wanprestasi-menurut-pasal-1243-kuh-perdata/>.

⁴⁶ Ahmadi Miru and Sutarman Yodo, *Hukum Perlindungan Konsumen*, Cet. II (Depok: Raja Grafindo Persada, 2019).

⁴⁷ Rizka Noor Hashela, "Perlindungan Hukum Terhadap Pelaku Usaha Dalam Kegiatan Jual Beli Secara Online," JDIH Kabupaten Tanah Laut, 2023, https://jdih.tanahlautkab.go.id/artikel_hukum/detail/perlindungan-hukum-terhadap-pelaku-usaha-dalam-kegiatan-jual-beli-secara-online.

⁴⁸ Adelia, Adelia, and Zahra, "Perlindungan Konsumen Dalam Transaksi Elektronik Di Indonesia."

outcome is embodied in a final and enforceable court judgment.⁴⁹ Nevertheless, judicial proceedings often involve considerable time, financial expense, and procedural complexity, particularly where disputes concern electronic evidence or transactions extending across multiple jurisdictions.⁵⁰

The evolution of digital commerce has correspondingly encouraged greater reliance on alternative dispute resolution (ADR) mechanisms. Negotiation, mediation, conciliation, and arbitration are increasingly preferred because they provide more flexible, efficient, and cost-effective procedures for resolving contractual disputes.⁵¹ For participants in electronic transactions, these mechanisms are generally more compatible with the operational demands of digital commerce, where timely and practical dispute resolution is essential to minimizing disruption to ongoing business activities. Their effectiveness, however, ultimately depends upon the parties' willingness to participate in good faith and to comply voluntarily with the agreed outcomes.

The effectiveness of legal protection in electronic transactions is also closely associated with the evidentiary framework governing dispute resolution. Since the enactment of the Electronic Information and Transactions Law, electronic information and electronic documents have been recognized as legally admissible evidence possessing evidentiary value equivalent to that of conventional written documents.⁵² This statutory recognition represents a significant step toward harmonizing procedural law with technological development. Nevertheless, Indonesia's civil procedural system, which continues to rely substantially upon the traditional evidentiary principles embodied in the HIR and RBg, has yet to provide comprehensive guidance regarding the examination, authentication, and judicial evaluation of electronic evidence. Consequently, judicial approaches to determining the formal and substantive validity of electronic documents continue to vary in practice.

Additional challenges arise from the technical characteristics of electronic evidence. Issues concerning the authenticity of digital identities, the integrity of electronic data, the security of digital storage systems, and the potential manipulation of electronic documents frequently become central considerations in dispute resolution.⁵³ These challenges become even more complex where transactions involve international digital platforms, cloud computing services, or emerging technologies such as artificial intelligence.⁵⁴ Accordingly, stronger cybersecurity standards, wider implementation of certified electronic signatures, and the

⁴⁹ Griselda Vaustine and Marina dan Puja Ayu Purwanti, "Mekanisme Penyelesaian Sengketa Wanprestasi Dalam Hukum Perdata Indonesia," *Rewang Rencang: Jurnal Hukum Lex Generalis* 5, no. 4 (2024): 1–13, <https://doi.org/10.56370/jhlg.v5i4.1371>.

⁵⁰ Deasy Yuni Pratiwi, Askari Razak, and Rizki Ramadani, "Efektivitas Pelaksanaan Peraturan Mahkamah Agung Republik Indonesia Tentang Administrasi Perkara Dan Persidangan Di Pengadilan Secara Elektronik," *Dialogica* 1, no. 1 (2025): 1–18, <https://jurnal.fh.umi.ac.id/index.php/legal/article/view/1683>.

⁵¹ Vaustine and Purwanti, "Mekanisme Penyelesaian Sengketa Wanprestasi Dalam Hukum Perdata Indonesia."

⁵² Didik Kusuma Yadi, Muhammad Sood, and Dwi Martin, "Perlindungan Hukum Bagi Para Pihak Dalam Transaksi E-Commerce Menurut Tata Hukum Indonesia," *Jurnal Commerce Law* 2, no. 1 (2022): 142–52, <https://doi.org/10.29303/commercelaw.v2i1.1368>.

⁵³ Ramadani, Haidar, and Setiono, "Efektivitas Penggunaan Bukti Digital Dalam Pembuktian Perkara Perdata: Analisis Terhadap Integrasi Electronic Evidence Dalam Hukum Acara Perdata Nasional."

⁵⁴ Panggalo, "Analisis Perkembangan Hukum Perdata Dalam Transaksi Digital: Tanggung Jawab Hukum Dalam E-Commerce Dan Fintech."

continuous modernization of evidentiary regulations are necessary to ensure that the legal framework remains responsive to technological innovation.⁵⁵

The effectiveness of legal protection in electronic agreements is likewise significantly influenced by the role of the state. Government institutions are responsible for developing legal regulations capable of adapting to technological change while preserving the fundamental principles of Indonesian civil law.⁵⁶ Future legal reform should prioritize clearer accountability for electronic system providers, stronger personal data protection mechanisms, greater legal certainty concerning electronic evidence, and more responsive dispute resolution frameworks that reflect the realities of the digital society.⁵⁷ At the same time, judges and other law enforcement authorities must possess an adequate understanding of technological developments to ensure that judicial decisions uphold not only procedural legality but also substantive justice.⁵⁸

Effective legal protection, however, cannot depend solely upon regulatory quality and institutional enforcement. The level of digital legal literacy among members of society likewise plays a decisive role in determining the effectiveness of legal protection. Many disputes arise because contracting parties fail to understand their contractual rights and obligations, neglect to review contractual terms and conditions carefully, or remain unaware of the dispute resolution mechanisms available to them.⁵⁹ Consequently, digital legal education should be recognized as an important preventive instrument capable of reducing the incidence of contractual breaches and minimizing legal disputes arising from electronic transactions.⁶⁰

Comparative experience from various jurisdictions demonstrates an increasing reliance on Online Dispute Resolution (ODR) mechanisms for resolving disputes arising from electronic commerce. ODR enables disputes to be resolved electronically through procedures that are generally faster, more accessible, and more cost-effective than conventional litigation.⁶¹ For Indonesia, the continued development of ODR represents a strategic opportunity to strengthen legal protection in a manner consistent with the real-time, borderless, and technology-driven characteristics of contemporary electronic transactions.

Based on the foregoing analysis, legal protection for parties affected by breaches of electronic agreements cannot rely exclusively upon the Indonesian Civil Code as the traditional legal framework governing contractual obligations. Although the Civil Code remains the primary legal foundation for contractual relationships, its application must be integrated with the broader digital legal regime established by the Electronic Information and Transactions Law and other supporting legislation. Greater legal certainty can be achieved

⁵⁵ Diego Fernando Seran, Andika Wijaya, and Satriya Nugraha, "Klausula Baku Dalam Perjanjian Layanan Digital: Analisis Perbandingan Prinsip Hukum Perdata Dan UU Perlindungan Konsumen," *INNOVATIVE: Journal Of Social Science Research* 5, no. 2 (2025): 3654–76, <https://doi.org/10.31004/innovative.v5i2.18721>.

⁵⁶ Panggalo, "Analisis Perkembangan Hukum Perdata Dalam Transaksi Digital: Tanggung Jawab Hukum Dalam E-Commerce Dan Fintech."

⁵⁷ Audiawati, "Tanggung Jawab Hukum Pelaku Usaha Platform Digital Terhadap Perlindungan Konsumen Dalam Ekosistem E-Commerce Di Indonesia."

⁵⁸ Lumbanraja, "Urgensi Peran Aktif Hakim Pada Peradilan Tindak Pidana Informasi Elektronik."

⁵⁹ Ridwan Arifin et al., "Protecting the Consumer Rights in the Digital Economic Era: Future Challenges in Indonesia," *JALREV: Jambura Law Review* 3, no. Special Issue (2021): 135–60, <https://doi.org/10.33756/jlr.v3i0.9635>.

⁶⁰ Mori'c et al., "Protection of Personal Data in the Context of E-Commerce."

⁶¹ H. Matnuh, "Rectifying Consumer Protection Law and Establishing of a Consumer Court in Indonesia," *Journal of Consumer Policy* 44 (2021): 483–95, <https://doi.org/10.1007/s10603-021-09487-z>.

only where the rights and obligations of contracting parties are clearly defined, electronic evidentiary standards are adequately regulated, rules governing contractual liability are sufficiently certain, and dispute resolution mechanisms are capable of delivering timely, effective, and equitable legal outcomes within Indonesia's digital transaction ecosystem..

D. Conclusion

Breaches of contract arising from electronic agreements remain fundamentally governed by the general principles of Indonesian civil law concerning contractual obligations. This study demonstrates that the classical forms of contractual breach—namely complete non-performance, delayed performance, defective performance, and conduct contrary to contractual provisions—remain conceptually applicable to digital transactions. However, the rapid expansion of the digital ecosystem has substantially increased the complexity of contractual liability through the involvement of multiple actors, including digital platforms, electronic system providers, payment service providers, and other technological intermediaries. Consequently, contractual disputes in the digital era extend beyond conventional issues of contractual non-performance and increasingly encompass broader legal concerns relating to electronic evidence, cybersecurity, personal data protection, and intermediary liability.

This study further finds that legal protection for parties affected by breaches of electronic agreements has been normatively established through the Indonesian Civil Code, the Electronic Information and Transactions Law, and related statutory instruments recognizing the validity and enforceability of electronic contracts. Nevertheless, the practical effectiveness of this legal framework continues to face significant challenges arising from electronic evidentiary issues, regulatory fragmentation, limitations in dispute resolution mechanisms, and obstacles to the enforcement of civil remedies within digital environments. Accordingly, strengthening regulatory coherence, modernizing the legal framework governing electronic evidence, enhancing digital legal literacy, and expanding technology-based dispute resolution mechanisms constitute essential measures for promoting legal certainty, substantive justice, and effective legal protection within Indonesia's evolving digital economy.

Acknowledgement: The author sincerely acknowledges all individuals who provided valuable academic insights and constructive comments during the preparation of this manuscript. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Competing Interest: The author declares that there are no competing interests or conflicts of interest, whether financial or personal, that could have influenced the work reported in this article.

References

- Adelia, Melani Putri, Maharani Putri Adelia, and Yundira Kamini Zahra. "Perlindungan Konsumen Dalam Transaksi Elektronik Di Indonesia." *Journal of Economic and Management (JEM) Terekam Jejak* 2, no. 1 (2025): 1–13. <https://journal.terekamjejak.com/index.php/jem/article/view/232>.
- Adinda, Andi Ghaida Tsuraya, Muhammad Rinaldy Bima, and Anggreany Arief. "Urgensi Penguatan Regulasi Dan Pengawasan Dompot Digital Sebagai Upaya Perlindungan Konsumen Mahasiswa Di Kota Makassar." *Dialogica* 11, no. 2 (2026): 1–13.

<https://jurnal.fh.umi.ac.id/index.php/legal/article/view/2422>.

- Aprilianti, Fathya, and Amoury Adi Sudiro. "Keseimbangan Para Pihak Dalam Kontrak Elektronik (E-Contract)." *Jurnal Hukum POSITUM* 8, no. 2 (2023): 276–98. <https://doi.org/10.35706/positum.v8i2.10898>.
- Arifin, Ridwan, Juan Anthonio Kambuno, Wasipiah, and Dian Latifiani. "Protecting the Consumer Rights in the Digital Economic Era: Future Challenges in Indonesia." *JALREV: Jambura Law Review* 3, no. Special Issue (2021): 135–60. <https://doi.org/10.33756/jlr.v3i0.9635>.
- Audiawati, Avis. "Tanggung Jawab Hukum Pelaku Usaha Platform Digital Terhadap Perlindungan Konsumen Dalam Ekosistem E-Commerce Di Indonesia." *Al-Madaaris* 4, no. 2 (2026): 7881–92. <https://doi.org/10.61104/alz.v4i2.5832>.
- Badruzaman, Mariam Darus. *KUHPerdata Buku III: Hukum Perikatan Dengan Penjelasan*. Cet. II. Bandung: Alumni, 2006.
- Baharudin, U. Andre. "Tanggung Jawab Wanprestasi Menurut Pasal 1243 KUH Perdata." *LBH Cadhas*, 2026. <https://lbh-cadhas.com/tanggung-jawab-wanprestasi-menurut-pasal-1243-kuh-perdata/>.
- Barkatullah, Abdul Halim. *Hukum Transaksi Elektronik Di Indonesia: Sebagai Pedoman Dalam Menghadapi Era Digital Bisnis e-Commerce Di Indonesia*. Cet. II. Bandung: Nusamedia, 2019.
- Diantha, I Made Pasek. *Metodologi Penelitian Hukum Normatif Dalam Justifikasi Teori Hukum*. Jakarta: Prenada Media Group, 2017.
- Effendy, Edrick Edwardina. "Keabsahan Perjanjian Elektronik Yang Termuat Dalam Peraturan Pemerintah Nomor 80 Tahun 2019 Tentang Perdagangan Melalui Sistem Elektronik." *Notary Journal* 5, no. 1 (2025): 1–21. <https://doi.org/10.19166/nj.v5i1.8241>.
- Fatmawati, Arum, and Budi Hermono. "Perlindungan Hukum Atas Data Pengguna Oleh Penyedia Layanan Cloud Computing Ditinjau Dari Undang-Undang Nomor 11 Tahun 2008 Tentang Informasi Dan Transaksi Elektronik." *Novum: Jurnal Hukum* 3, no. 3 (2016): 1–10. <https://doi.org/10.2674/novum.v3i3.17895>.
- Filmadina, Niswatu, Tasya Monica, Fendy Setiawan, and Firman Floranta Adonara. "Pengembangan Hukum Perjanjian Dalam Era Digitalisasi Di Ekonomi Indonesia." *Rnal Ilmu Sosial & Hukum Al-Zayn: Jurnal Ilmu Sosial & Hukum* 3, no. 5 (2025): 5889–98. <https://doi.org/10.61104/alz.v3i5.2197>.
- Fista, Yanci Libria, Aris Machmud, and Suartini. "Perlindungan Hukum Konsumen Dalam Transaksi E-Commerce Ditinjau Dari Perspektif Undang-Undang Perlindungan Konsumen." *Binamulia Hukum* 12, no. 1 (2023): 177–89. <https://doi.org/10.37893/jbh.v12i1.599>.
- Genias, Kriffirgy Valian, Filzah Risky Amalina, Jhaviera Latifa Jofit, Muhammad Syarafi Izazi Yorika, and Elisatris Gultom. "Wanprestasi Dalam Jual Beli Online: Solusi Hukum Dan Perlindungan Konsumen." *Kultura: Jurnal Ilmu Hukum, Sosial Dan Humaniora* 2, no. 11 (2024): 415–29.

- Hadjon, Phillipus M. *Perlindungan Hukum Bagi Rakyat Indonesia*. Surabaya: Bina Ilmu, 1987.
- Halim, Alfa Abdul, Muhamad Taufik La Ode, and Iyam Irahlatmi Kaharu. "Penggunaan Klausula Eksonerasi Dalam Perjanjian Baku Leasing Kendaraan." *De Jure: Jurnal Ilmiah Ilmu Hukum* 5, no. 2 (2024): 110–25. <https://doi.org/10.33387/dejure.v5i2.9147>.
- Harsya, Rabith Madah Khulaili. "Tinjauan Yuridis Terhadap Tanggung Jawab Platform Digital Atas Konten Ilegal Menurut Hukum Indonesia." *Sanskara Hukum Dan HAM* 4, no. 1 (2025): 276–86. <https://doi.org/10.58812/shh.v4.i01>.
- Hashela, Rizka Noor. "Perlindungan Hukum Terhadap Pelaku Usaha Dalam Kegiatan Jual Beli Secara Online." JDIH Kabupaten Tanah Laut, 2023. https://jdi.h.tanahlautkab.go.id/artikel_hukum/detail/perlindungan-hukum-terhadap-pelaku-usaha--dalam-kegiatan-jual-beli-secara-online.
- Hebimisa, Fitmar, Nontje Rimbing, and Josina Emilia Londa. "Penegakan Hukum Perjanjian Dalam Kontrak Digital Menurut Undang-Undang Nomor 11 Tahun 2008 Yang Dibaharui Oleh Undang-Undang Nomor 19 Tahun 2016." *Lex Administratum* 10, no. 4 (2022): 1–11. <https://ejournal.unsrat.ac.id/v3/index.php/administratum/article/view/42640>.
- Ibrahim, Johnny. *Teori Dan Metodologi Penelitian Hukum Normatif*. Malang: Bayumedia, 2006.
- Jamal, Syabillah Aulia, Sabrina Fitriyani, Adhelia Putri, Rian, and Tohadi. "Perlindungan Dan Pertanggungjawaban Hukum Pada Dompot Digital (Dana) Terhadap Konsumen." *Jurnal Transformasi Hukum Dan Keadilan Sosial* 10, no. 1 (2026): 52–60. <https://journal.fexaria.com/j/index.php/jthks/article/view/846>.
- Lasut, Tesalonica Heavenly, Rory Jeff Akyuwen, and Sarah Selfina Kuahaty. "Pembatalan Sepihak Oleh Penjual Dalam Perjanjian Jual Beli Online." *Tatohi: Jurnal Ilmu Hukum* 4, no. 7 (2024): 546–53. <https://doi.org/10.47268/tatohi.v4i7.2463>.
- Lubis, Taufik Hidayat. "Hukum Perjanjian Di Indonesia." *SOSEK: Jurnal Sosial Dan Ekonomi* 2, no. 3 (2022): 177–90. <https://doi.org/10.55357/sosek.v2i3.250>.
- Lumbanraja, Anggita Doramia. "Urgensi Peran Aktif Hakim Pada Peradilan Tindak Pidana Informasi Elektronik." *CREPIDO: Jurnal Mengenai Dasar-Dasar Pemikiran Hukum* 1, no. 1 (2019): 1–12. <https://doi.org/10.14710/crepido.1.1.1-12>.
- Makarim, Edmon. *Pengantar Hukum Telematika: Suatu Kompilasi Kajian*. Jakarta: PT RajaGrafindo Persada, 2005.
- Mandacan, Wasti Emma, Dientje Rumimpunu, and Fonny Tawas. "Akibat Hukum Dari Wanprestasi Dalam Kontrak Perjanjian Hukum Perdata Indonesia." *Lex Crimen* 14, no. 2 (2025): 1–13. <https://ejournal.unsrat.ac.id/v3/index.php/lexcrimen/article/view/65033>.
- Matnuh, H. "Rectifying Consumer Protection Law and Establishing of a Consumer Court in Indonesia." *Journal of Consumer Policy* 44 (2021): 483–95. <https://doi.org/10.1007/s10603-021-09487-z>.
- Miru, Ahmadi, and Sutarman Yodo. *Hukum Perlindungan Konsumen*. Cet. II. Depok: Raja

Grafindo Persada, 2019.

- Morić, Zlatan, Vedran Dakic, Daniela Djekic, and Damir Regvart. "Protection of Personal Data in the Context of E-Commerce." *Journal of Cybersecurity and Privacy* 4, no. 3 (2024): 731–61. <https://doi.org/10.3390/jcp4030034>.
- Mubarok, Muhammad April, and Herry Febriadi. "Perlindungan Hukum Konsumen Dalam Transaksi E-Commerce Di Indonesia Tahun 2025." *PESHUM: Jurnal Pendidikan, Sosial Dan Humaniora* 5, no. 2 (2026): 4775–81. <https://doi.org/10.56799/peshum.v5i2.14272>.
- Nafi'a, Zidna Ilma, and Ery Agus Priyono. "Perkembangan Hukum Perjanjian Di Era Digital: Tinjauan Atas Kontrak Elektronik." *JIHHP: Jurnal Ilmu Hukum, Humaniora Dan Politik* 5, no. 4 (2025): 3327–33. <https://doi.org/10.38035/jihhp.v5i4>.
- Nurwulan, Pandam. "Penggunaan Kontrak Elektronik Dalam Bidang Keperdataan." In *Prosiding Seminar Hukum Aktual Fakultas Hukum Universitas Islam Indonesia*, 9:12–15. Yogyakarta: journal.uui.ac.id, 2021. <https://journal.uui.ac.id/psha/article/download/34023/16717>.
- Panggalo, Ludia. "Analisis Perkembangan Hukum Perdata Dalam Transaksi Digital: Tanggung Jawab Hukum Dalam E-Commerce Dan Fintech." *Journal of Innovative and Creativity* 5, no. 3 (2025): 35823–28. <https://doi.org/10.31004/joecy.v5i3.5549>.
- Pratiwi, Deasy Yuni, Askari Razak, and Rizki Ramadani. "Efektivitas Pelaksanaan Peraturan Mahkamah Agung Republik Indonesia Tentang Administrasi Perkara Dan Persidangan Di Pengadilan Secara Elektronik." *Dialogica* 1, no. 1 (2025): 1–18. <https://jurnal.fh.umi.ac.id/index.php/legal/article/view/1683>.
- Putri, Aurel Nathalia Buana, Andini Anjelina Karamoy, Yoga Dian, Muhammad Zibran, and Farahdinny Siswajanthy. "Wanprestasi Pada Era Digital: Tanggung Jawab Hukum Dalam Perjanjian Berbasis Elektronik." *Journal of Artificial Intelligence and Digital Business (RIGGS)* 5, no. 2 (2026): 186–93. <https://doi.org/10.31004/riggs.v5i2.8346>.
- Ramadani, Nurmagrifah, Muhammad Haidar, and Aulia Putri Setiono. "Efektivitas Penggunaan Bukti Digital Dalam Pembuktian Perkara Perdata: Analisis Terhadap Integrasi Electronic Evidence Dalam Hukum Acara Perdata Nasional." *JAKSA: Jurnal Kajian Ilmu Hukum Dan Politik* 3, no. 1 (2025): 49–62. <https://doi.org/10.51903/j884b051>.
- Ridwan, Muhammad Riandi Nur, and Yana Sukma Permana. "Wanprestasi Dan Akibatnya Dalam Pelaksanaan Perjanjian." *Jurnal Ilmu Hukum "THE JURIS"* 6, no. 2 (2022): 441–51. <https://doi.org/10.56301/juris.v6i2.616>.
- Seran, Diego Fernando, Andika Wijaya, and Satriya Nugraha. "Klausula Baku Dalam Perjanjian Layanan Digital: Analisis Perbandingan Prinsip Hukum Perdata Dan UU Perlindungan Konsumen." *INNOVATIVE: Journal Of Social Science Research* 5, no. 2 (2025): 3654–76. <https://doi.org/10.31004/innovative.v5i2.18721>.
- Setiawan, I Ketut Oka. *Hukum Perikatan*. Ed. Cet. K. Jakarta: Sinar Grafika, 2018.
- Sinaga, Niru Anita, and Nurlery Darwis. "Wanprestasi Dan Akibatnya Dalam Pelaksanaan Perjanjian." *Jurnal Mitra Manajemen* 7, no. 2 (2015): 43–57.

<https://doi.org/10.35968/jmm.v7i2.534>.

Subekti. *Hukum Perjanjian*. Jakarta: Intermasa, 2008.

———. *Pokok-Pokok Hukum Perdata*. Jakarta: Intermasa, 2014.

Vaustine, Griselda, and Marina dan Puja Ayu Purwanti. “Mekanisme Penyelesaian Sengketa Wanprestasi Dalam Hukum Perdata Indonesia.” *Rewang Rencang: Jurnal Hukum Lex Generalis* 5, no. 4 (2024): 1–13. <https://doi.org/10.56370/jhlq.v5i4.1371>.

Wijaya, Gst. Ngr. Pt. Arya Kusuma, Kadek Januarsa Adi Sudharma, I Gusti Ayu Eviani Yuliantari, and Anak Agung Ayu Intan Puspawati. “Analisis Yuridis Wanprestasi Dalam Perjanjian Elektronik Di Platform E-Commerce Berdasarkan Undang-Undang Nomor 8 Tahun 1999.” *Al-Zayn: Jurnal Ilmu Sosial & Hukum* 3, no. 6 (2025): 8248–56. <https://doi.org/10.61104/alz.v3i5.2398>.

Yadi, Didik Kusuma, Muhammad Sood, and Dwi Martin. “Perlindungan Hukum Bagi Para Pihak Dalam Transaksi E-Commerce Menurut Tata Hukum Indonesia.” *Jurnal Commerce Law* 2, no. 1 (2022): 142–52. <https://doi.org/10.29303/commercelaw.v2i1.1368>.