



FAIR AND ACCOUNTABLE ELECTRONIC TRANSACTIONS: THE URGENCY OF CONSUMER PROTECTION, THE VALIDITY OF DIGITAL CONTRACTS, AND THE OPTIMISATION OF PREVENTIVE AND REPRESSIVE DISPUTE RESOLUTION

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Abstract

This research discusses legal certainty, electronic agreements, and consumer protection in online buying and selling transactions in Indonesia. Based on Article 2 of Law No. 19 of 2016 concerning ITE, electronic transactions are defined as buying and selling activities through online media without physical encounters between sellers and buyers, thus demanding strong legal certainty so that every stage of the transaction runs transparently and accountably. In the realm of civil law, electronic agreements are adhesion contracts (standardized contracts) designed unilaterally by business actors and agreed upon digitally by consumers. Indonesian law recognizes the validity of electronic contracts based on Article 1320 of the Civil Code (KUHPdata) and the ITE Law, which place digital contracts on par with conventional written contracts as long as they meet the elements of a valid agreement and are reinforced by electronic signatures. Consumer protection is implemented through two mechanisms: preventive measures (digital literacy, information transparency, government supervision) and repressive measures (dispute resolution through litigation, non-litigation, and internal e-commerce platform mechanisms). The legal foundations include the UUPK (Consumer Protection Law) and Government Regulation No. 80 of 2019 concerning PMSE. However, the implementation of legal protection still faces serious obstacles, including weak law enforcement, the absence of comprehensive regulations on personal data protection, and low consumer awareness to report violations. The effectiveness of institutions such as BPSK highly depends on active community participation and institutional capacity. The success of consumer protection is determined by close cooperation between the government, business actors acting in good faith, and smart consumers who are aware of their rights. Institutional strengthening, increased legal literacy, and the acceleration of personal data protection laws are absolute requirements to realize legal certainty for electronic transactions that are equitable, secure, and sustainable in Indonesia.

Keywords: legal certainty, consumer protection, electronic transactions, digital agreements, e-commerce

Introduction

The development of information and communication technology has fundamentally transformed the patterns of societal life, including in the realm of buying and selling transactions. The current digital era allows individuals to purchase goods or services without having to be physically present at the seller's location. This phenomenon is known as electronic transactions or e-commerce, which has experienced rapid growth in Indonesia over the last decade. The public has become increasingly accustomed to shopping through online platforms such as Shopee, Lazada, Tokopedia, and various other similar applications. Ease of access, time efficiency, and a wide variety of product choices are primary attractions that conventional trading systems cannot offer. However, behind all these conveniences, various new legal issues have emerged that were previously absent in traditional transactions. The physical absence of the parties involved creates its own vulnerabilities, especially for consumers whose structural position is weaker than that of business actors (Husnulwati et al., 2024). The importance of inclusivity in access to technology-based services remains a challenge for society (Ramle & Mardikaningsih, 2022), where the synergy between business capital, education level, and the utilization of technology plays a vital role in increasing the income of business actors (Sinambela et al., 2021).

Electronic transactions are essentially buying and selling activities conducted through online media, encompassing the entire series of processes from accessing e-commerce platforms, selecting goods, checking out, determining payment methods, to completing order confirmations. The uniqueness of this system lies in the absence of physical meetings between sellers and buyers, meaning the entire process relies entirely on digital mechanisms. This condition necessitates strong legal certainty so that every stage of the transaction can proceed transparently, fairly, and accountably. Without adequate legal certainty, the potential for consumer harm is immense, ranging from goods not matching specifications to fraud committed by irresponsible parties (Daud & Suyanto, 2024). A deep understanding of legal certainty in the context of digital transactions is a necessity for all parties involved in the electronic commerce ecosystem. Comprehensive studies on the validity and effectiveness of electronic

contracts are essential to strengthen the foundation of legal protection for digital transaction users (Sulaiman et al., 2023).

Legal certainty becomes increasingly crucial in line with the rapid dynamics of today's digital trade. Various technological innovations, such as cashless payment systems, electronic wallets, and the use of artificial intelligence for product recommendations, have fundamentally changed the pattern of relationships between sellers and buyers. On one hand, these innovations provide unprecedented ease and efficiency. On the other hand, without a strong and clear legal foundation, technological progress has the potential to widen legal loopholes that can be exploited for fraud or the misuse of consumer personal data (Yuswanti & Redi, 2025). Legal certainty acts not only as a tool for regulating trading activities but also as an instrument of social control that maintains public trust in the digital ecosystem. This trust is the primary foundation for sustainable and healthy digital economic growth in Indonesia. Therefore, an in-depth evaluation regarding the advantages and disadvantages of using electronic money as a payment instrument is essential to support financial system stability (Sinambela & Darmawan, 2022).

In the realm of civil law, electronic agreements are understood as standard forms of agreement designed, created, and stipulated unilaterally by business actors in a digital format. Such documents are then duplicated and distributed via the internet with the aim of obtaining digital consent from consumers. The legal relationship between seller and buyer in online transactions is formed automatically at the moment the consumer agrees to the provided terms and conditions (Nilamjati et al., 2025). In practice, an agreement is considered validly formed when the buyer adds items to a shopping cart, completes payment, and the seller responds by processing the order. The nature of these standard agreements, which tend to be unilateral, makes consumer protection regulations vital. Without a balance of legal positions, consumers can easily be harmed by unfair clauses hidden behind long and complex terms and conditions. The protection of consumer rights must also be asserted in mechanisms for handling lost goods by shipping companies to maintain trust in logistics services (Supriyanto et al., 2023).

Legal certainty for consumers in online transactions plays a vital role in upholding their rights while preventing various forms of fraud by business actors. This legal protection is manifested in two primary forms: through

generally applicable statutory regulations and through specific agreements between consumers and business actors. Both legal instruments serve as the foundation for creating justice in digital interactions, where the rights and obligations of all parties must be regulated transparently. Within the Indonesian legal system, the consumer protection framework has been specifically designed to guarantee consumer rights, including the right to truthful information, the right to product safety, and the right to compensation in the event of loss (Yulinda et al., 2024). Nevertheless, the implementation of legal protection in Indonesia still faces various serious obstacles, including weak enforcement in the field and the lack of comprehensive national regulations regarding consumer personal data protection. Optimizing the principles of healthy business competition and strengthening the role of supervisory agencies are crucial in creating a fair digital economic climate (Wibowo et al., 2023), where the application of an appropriate tax system for e-commerce also becomes an important aspect of national digital economic sustainability (Wibowo et al., 2023).

The principle of good faith (*itikad baik*) in e-commerce transactions serves as a moral and legal foundation to ensure honesty, information transparency, product reliability, and consumer data protection. The application of this principle aims to create trust and fair relationships between business actors and consumers in every transaction. However, reality shows that electronic transactions also carry a number of serious risks, such as fraud, misuse of personal data, goods that do not match specifications, and the difficulty of tracing the identity of the seller. This condition illustrates the dilemma between technological progress and the weak control over data misuse and transaction authenticity (Suriyat et al., 2025). Furthermore, until now, there has been no legal instrument that comprehensively regulates personal data protection in the context of electronic transactions. This renders consumers highly vulnerable to identity theft and data misuse by irresponsible parties. Legal analysis of the use of big data and analytics is required to ensure protection for insurance policyholders against discriminatory practices (Bashori et al., 2024), as well as the enforcement of clear legal aspects for risk mitigation in peer-to-peer lending investments (Sahid et al., 2023).

To address the various legal problems that arise, consumers can pursue two types of efforts: preventive legal remedies and repressive legal

remedies. Preventive efforts include increasing digital literacy, ensuring product information transparency, and enhancing government oversight of online business actors. This approach is crucial because e-commerce dispute resolution is known to be a relatively difficult process, time-consuming, and often demands significant costs. Meanwhile, repressive efforts are undertaken to resolve disputes that have already occurred, both through litigation in court and non-litigation channels such as arbitration and internal e-commerce platform mechanisms. However, the effectiveness of both efforts still depends heavily on the consumer's awareness to report violations and the capacity of dispute resolution institutions to follow up on reports quickly and transparently. Strengthening institutions and increasing public legal literacy are non-negotiable requirements. Improving digital marketing competence for young entrepreneurs is one of the important strategies in increasing literacy and business sustainability (Halizah & Darmawan, 2025), which is also supported by the effectiveness of promotional strategies through social media (Mardikaningsih & Halizah, 2024) and institutional-based financing models such as cooperatives (Wiyandarini et al., 2021).

Although various legal instruments to protect consumers in electronic transactions are available, their implementation still faces significant challenges. The gap between existing provisions and field practices creates legal uncertainty that harms consumers. Moreover, the cross-border nature of electronic transactions and the rapid pace of technological innovation demand continuous adaptation to prevailing legal principles (Lambi & Siswani, 2024). Therefore, in-depth studies are needed to comprehensively analyze legal certainty, electronic agreements, and consumer protection mechanisms in online buying and selling transactions. A holistic understanding of these three aspects is the key to creating a fair, safe, and sustainable digital trading ecosystem. This includes the importance of digital credit regulations in the financial market ecosystem (Yuristiawan et al., 2024), the effectiveness of law enforcement in handling cross-border business competition (Zulkarnain et al., 2024), and addressing legal challenges regarding digital fraud involving crypto assets (Balkista et al., 2024).

Based on the background of the problem described, this research aims to analyze and describe in depth the legal certainty in electronic transactions as a fundamental foundation that ensures all online buying

and selling processes take place securely, transparently, and accountably. This research also aims to examine the validity of electronic agreements as a form of digital contract whose status is equal to conventional contracts, as well as to analyze consumer protection mechanisms consisting of preventive and repressive efforts in online buying and selling transactions. Furthermore, this research aims to identify various obstacles faced in the implementation of legal protection for consumers, including weak law enforcement, the absence of comprehensive regulations on personal data protection, and the low awareness of consumers to demand their rights proportionally. Ultimately, this research is expected to provide recommendations for institutional strengthening, increasing public legal literacy, and accelerating the formation of personal data protection policies to realize legal certainty for electronic transactions that are equitable, secure, and sustainable in Indonesia.

Method

This research utilizes a normative legal research method or library research, which is research conducted by examining library materials or secondary data as the primary object. The approaches used in this study are the statute approach and the conceptual approach. The statute approach is conducted by reviewing all laws and regulations relevant to the issues being studied, including Law Number 19 of 2016 concerning Electronic Information and Transactions, Law Number 8 of 1999 concerning Consumer Protection, the Indonesian Civil Code (KUHPPerdata), and Government Regulation Number 80 of 2019 concerning Trade Through Electronic Systems. The conceptual approach is carried out by analyzing various doctrines, legal principles, and expert views related to legal certainty, electronic agreements, and consumer protection in digital transactions.

The legal materials used in this research consist of three types, namely primary legal materials, secondary legal materials, and tertiary legal materials. Primary legal materials include laws and regulations governing electronic transactions, consumer protection, and agreements in general. Secondary legal materials consist of literature, scientific journals, legal articles, and previous research results relevant to the topic under study. Tertiary legal materials consist of legal dictionaries and legal encyclopedias used to understand technical terms in this research. The collection of legal

materials was conducted through library research techniques, namely by systematically searching, inventorying, and reviewing various legal documents related to the issues being investigated (Hamzani et al., 2023).

The legal material analysis technique used in this research is qualitative descriptive analysis. Descriptive analysis aims to describe systematically, factually, and accurately the prevailing legal provisions regarding legal certainty, electronic agreements, and consumer protection in online buying and selling transactions. Qualitative analysis is conducted by interpreting the collected legal materials to find the meanings, relationships, and implications of these legal provisions regarding the issues being studied (Sinaga & Sinaga, 2025). All analyzed data are then presented in a systematic, logical, and comprehensive scientific narrative, so that conclusions addressing the research objectives can ultimately be drawn. The results of the analysis are also used to provide policy recommendations to overcome various obstacles faced in the implementation of consumer protection in the digital era.

Result and Discussion

Legal Certainty, Electronic Agreements, and Consumer Protection in Online Transactions

Based on Article 2 of Law Number 19 of 2016 concerning Information and Electronic Transactions, an electronic transaction is defined as a buying and selling activity conducted through online media. Simply put, this activity encompasses a series of processes ranging from accessing online shopping sites or applications such as Shopee, Lazada, or Tokopedia, selecting goods and reading their descriptions, to performing the checkout process. Subsequently, the buyer determines the available payment method, such as bank transfer, payment at retail outlets, or cash-on-delivery systems, until the entire payment process and order confirmation are completed (Arrasyiid et al., 2023). It is important to note that business competence and sustainability depend heavily on how they are able to adapt within the digital ecosystem (Mardikaningsih et al., 2022). Electronic transactions are not merely buying activities but an integrated chain of digital processes with no physical contact between seller and buyer. The uniqueness of this system demands legal certainty so that every stage proceeds transparently and accountably.

Legal certainty becomes increasingly crucial as the dynamics of digital trade rapidly evolve. Various technological innovations, such as cashless payment systems, electronic wallets, and the use of artificial intelligence for product recommendations, have fundamentally changed the relationship patterns between sellers and buyers. Without a strong and clear legal foundation, technological progress has the potential to widen legal loopholes that can be exploited for fraud or the misuse of consumer personal data (Sinaga & Sinaga, 2025). Legal certainty acts not only as a tool for regulating commercial activities but also as an instrument of social control that maintains public trust in the digital ecosystem. This trust serves as the primary foundation for sustainable and healthy digital economic growth in Indonesia. Therefore, the integration of green technology in management and digital innovation in human resource development are key factors for future business sustainability (Mardikaningsih & Wardoyo, 2024; Mardikaningsih & Wardoyo, 2024).

In the realm of civil law, electronic agreements can be understood as standard forms of agreement designed, created, and stipulated unilaterally by business actors in a digital format. Such documents are then duplicated and distributed via the internet with the objective of obtaining digital consent from consumers. The legal relationship between seller and buyer in online transactions is formed automatically at the moment the consumer agrees to the terms and conditions provided by the business actor within the platform (Tudose, 2025). In the practice of online buying and selling, an agreement is considered validly formed when the buyer adds items to a shopping cart, completes payment, and the seller responds by processing and shipping the order. The nature of these standard agreements, which tend to be unilateral, makes consumer protection regulations highly significant. Furthermore, aspects of privacy, data inference, and user trust in digital services remain primary concerns that must be regulated to protect individual rights (Oluwatosin, 2024).

Legal certainty for consumers in online transactions plays a vital role in upholding their rights while preventing various forms of fraud by business actors. This legal protection is manifested in two primary forms: through generally applicable statutory regulations and through specific agreements between consumers and business actors that regulate compensation mechanisms, claim procedures, and dispute resolution.

Both legal instruments serve as the foundation for creating justice in digital interactions, where the rights and obligations of all parties must be regulated transparently. This is essential to ensure that consumers, who are structurally in a weaker legal position, are not disadvantaged. At this point, the integration of general rules and contractual provisions within each e-commerce platform becomes the primary key to ensuring that transactions proceed fairly, efficiently, and responsibly (Ayu et al., 2025). Within this framework, legal liability for defective goods and the consumer's right to compensation must be enforced proportionally in accordance with applicable business law (Marsal et al., 2025).

In every transaction of goods and services, there are two primary parties: the business actor as the provider and the consumer as the user. Based on Article 1, paragraph (2) of Law Number 8 of 1999, a consumer is any person who uses goods or services for personal, family, or other living beings' interests without the purpose of reselling them. Meanwhile, a business actor, according to Article 1, number 3, is any person or entity conducting economic activities in Indonesia, whether individually or collectively (Yuliska & Yuliska, 2024). In online buying and selling, the legal relationship formed is reciprocal: business actors are responsible for providing products according to the promised specifications, while consumers are obligated to fulfill payment according to the agreement. A consumer transaction occurs when there is a transfer of rights or the utilization of goods and services from a business actor to a consumer. It is vital for business actors to pay attention to aspects of legality and ethics, such as in the labeling of cosmetic products (Purwanto et al., 2023) and compliance with hazardous chemical regulations in food distribution (Noor et al., 2023).

In principle, electronic transactions share fundamental similarities with conventional contracts as regulated in Article 1313 of the Civil Code (*KUHPerdata*), which defines an agreement as a commitment between one party and another. The validity of electronic contracts in Indonesia is explicitly recognized by law based on Article 1320 of the Civil Code and the ITE Law, thus providing certainty in every digital business transaction. In other words, Indonesian law has placed electronic contracts on par with traditional written contracts, provided they fulfill the elements of a valid agreement. An electronic agreement is considered valid if it meets the requirements for a valid agreement under the Civil Code and is reinforced by electronic

signatures, which are recognized in Article 11 of the ITE Law as a legally valid means of evidence in terms of technology and security (Martam, 2024). This equivalence provides legal protection for consumers even in the absence of physical documents. Strengthening legal certainty is also highly necessary for other business contract schemes, such as royalty arrangements in franchises (Putra & Wibowo, 2023) and maintaining the ethical foundation of the relationship between franchisors and franchisees (Putra et al., 2022).

To address the various legal problems that arise in e-commerce transactions, consumers can pursue two types of efforts, the first being preventive legal remedies. Preventive efforts are defined as a series of steps taken with the intention of preventing the occurrence of undesired conditions or events, namely losses experienced by consumers. The application of this precautionary principle includes increasing public digital literacy, product information transparency, and government oversight of online business actors. This preventive approach is crucial because e-commerce dispute resolution is known to be a relatively difficult process, time-consuming, and often demands significant costs (Farizy & Farizy, 2024). Preventive efforts function as a highly effective first line of defense to ensure consumers do not suffer losses before a transaction is executed. Utilizing consumer reviews as an instrument to increase product competitiveness and management strategy is an effective form of preventive protection (Negara et al., 2021).

In addition to preventive efforts, repressive legal protection plays an equally important role when losses have already occurred. These repressive efforts are conducted to resolve disputes between business actors and consumers, either through litigation (court) or non-litigation (out-of-court) channels. According to Article 45, paragraph (2) of the Consumer Protection Law (*UUPK*) and Article 18, paragraphs (4) and (5) of the ITE Law, consumer dispute resolution can be carried out through the courts or outside the courts, including arbitration or other alternative institutions agreed upon by both parties. Legal protection through statutory regulations is the most effective instrument because it can serve as a basis for parties in forming agreements, and it allows the government to enforce and compel the implementation of these provisions (Musmualim et al., 2024). This mechanism provides a clear structure for consumers to fight for their rights if a violation occurs. The development of fair dispute

resolution mechanisms must also touch upon new issues, such as personal data protection due to data leaks on fintech platforms (Mujisulistyo et al., 2024), the security of online *arisan* transactions (Negara & Darmawan, 2023), and cross-border payment arrangements (Rahman et al., 2024).

In line with the increasing volume of online transactions, the complexity of consumer disputes has also grown over time. Along with the rapid growth of e-commerce in Indonesia, various consumer disputes resulting from online transactions continue to rise, prompting e-commerce platforms to develop internal dispute resolution mechanisms. This mechanism allows consumers to submit complaints directly to sellers, with the platform acting as a mediator that ensures swift resolution through refunds or product replacements if necessary. The development of this internal system demonstrates that the role of e-commerce platforms is not just as a trading intermediary, but also as a guardian of transaction justice (Tuhumury, 2025). Therefore, clear and firm regulations are required so that all electronic transactions can be conducted safely and securely. Strengthening legal norms, effective supervision, and increasing public legal awareness are the main keys to creating a fair digital ecosystem. The responsibility of marketplace platforms in assessing anti-competitive business practices (Negara et al., 2024) and compliance with digital information ethics, particularly regarding traffic accident victims (Muhammad et al., 2023), are important parts of a responsible ecosystem.

Legal certainty in electronic transactions is a fundamental component that ensures the entire online buying and selling process proceeds safely, transparently, and accountably. The existence of dispute resolution institutions, such as the Consumer Dispute Settlement Agency (BPSK), alongside internal e-commerce complaint mechanisms, serves as a vital pillar in realizing effective legal certainty (Antari et al., 2025). Nevertheless, the effectiveness of these institutions remains highly dependent on the level of consumer awareness in reporting any experienced violations, as well as the capacity of these institutions to follow up on reports in a swift and transparent manner. Consequently, the strengthening of institutional frameworks and the enhancement of public legal literacy are non-negotiable requirements. It is time for us to better understand the existing regulations related to electronic transactions in order to improve security and consumer protection comprehensively. The

application of a responsible and ethical technological approach remains a primary commitment for application developers and regulators in realizing justice within the digital space (Radjawane & Mardikaningsih, 2022).

Consumer Protection in Electronic Transactions: Legal Foundations, Good Faith Principles, and Challenges in Enforcement and Data Security in Indonesia

Legal protection is a series of efforts to fulfill the rights of victims and witnesses of crimes while simultaneously providing them with a sense of security. These efforts are carried out through two primary mechanisms: preventive measures and repressive actions that include the provision of restitution, compensation, medical services, and legal aid. The entirety of these mechanisms reflects the function of law in realizing justice, certainty, utility, and order within society. In the context of online buying and selling, this principle of protection becomes highly crucial because the relationship between consumers and business actors occurs without direct face-to-face interaction. This condition significantly increases the potential for violations against consumer rights (Rezkiyanti et al., 2025). Furthermore, the interaction between sales staff and the quality of service provided becomes a primary determinant in consumer decision-making in online transactions (Darmawan, 2022b).

The application of consumer protection principles in Indonesia emphasizes the right of every consumer to obtain safe, high-quality goods that do not endanger their safety. Based on Article 1, Paragraph (1) of Law Number 8 of 1999 concerning Consumer Protection (*UUPK*), the primary objective of consumer protection is to provide legal certainty for consumers. Article 1, Paragraph (2) explicitly states that a consumer is any person who uses goods or services for personal, family, or other living beings' interests without the purpose of reselling them. In every transaction, whether conducted directly or online, consumers have the right to receive goods that match the product descriptions promised. The *UUPK* provides protection to consumers at all stages of a transaction, starting from the acquisition process to the stage of using the goods or services (Ismunandar et al., 2021). The main focus of this protection also encompasses aspects of environmental accountability in business legal

liability (Darmawan, 2022a) and public policy that balances economic, social, and environmental interests (Mardikaningsih & Hariani, 2021).

With this comprehensive protection framework, consumer rights in electronic transactions have a solid legal foundation to demand certainty and security in every purchase. The *UUPK* serves as the legal basis regulating rights, obligations, prohibitions, and dispute resolution mechanisms between business actors and consumers to ensure protection and justice in sale and purchase agreements, including those conducted electronically. The presence of the *UUPK* demonstrates that although transactions occur in the digital space, legal protection for consumers remains applicable with the same principles as in conventional transactions. Article 5, paragraph (1) of the *UUPK* obligates business actors to provide truthful, clear, and complete information regarding goods or services, including instructions for use, repair, and maintenance. Information from advertisements or brochures can also serve as a basis for legal protection for consumers, even in the absence of a formal contractual relationship (Lengkong et al., 2025). In this ecosystem, social media plays a vital role as an effective means of online business promotion (Infante & Mardikaningsih, 2022), while simultaneously influencing repurchase intentions through excellent electronic service quality (Fared et al., 2021).

With these provisions, consumers possess a strong legal foundation to claim their rights when the goods received do not match the descriptions or promises given in advertisements. Nevertheless, consumers are expected to make informed decisions and avoid various forms of fraud. If errors or mistakes occur on the part of either the seller or the buyer, it can lead to serious issues regarding the validity of the electronic agreement concluded by both parties. This confirms that information clarity is a primary element in creating fair and balanced electronic transactions. Business activities in the digital space form a pattern of mutual dependence between business actors and consumers (Sholihan et al., 2024). Therefore, regulations are required that provide legal protection for consumers, who are generally in a structurally weaker position in terms of economy, education, capability, and bargaining power compared to business actors. It is important to remember that amidst digitalization, algorithm management in digital platforms can influence the dehumanization of work in the gig economy (Darmawan, 2024), such that

business sustainability must continue to pay attention to managerial challenges and regulatory uncertainty (Mardikaningsih & Darmawan, 2021).

The principle of good faith in e-commerce transactions in Indonesia serves as a legal foundation to ensure honesty, information transparency, product reliability, and consumer data protection. The application of this principle aims to create trust and a fair relationship between business actors and consumers in every transaction. The application of the good faith principle is a crucial element in every stage of contract implementation (Irfansyah et al., 2024). The principle of good faith not only builds trust but also strengthens moral and legal responsibility for business actors to refrain from exploiting consumer vulnerabilities. Electronic transactions indeed offer remarkable ease, efficiency, and flexibility for consumers. However, on the other hand, these transactions also carry a number of serious risks, such as fraud, misuse of personal data, goods that do not match specifications, and the difficulty of tracing the identity of the seller (Daud & Suyanto, 2024). Risks such as impulsive purchasing in marketplaces also require deep understanding to protect consumers from uncontrolled shopping behavior (Darmawan & Gatheru, 2021).

Another challenge of equal importance is the issue of consumer personal data protection. To date, Indonesia has yet to implement national regulations that comprehensively govern personal data protection within the context of electronic transactions. This condition renders consumers highly vulnerable to identity theft and misuse of data by irresponsible parties. Consequently, more rigorous and integrated legal policies are required to guarantee the security of consumer personal information in the digital world (Supriyanto et al., 2025). The protection of personal data is also urgently needed for enforcement within the fintech sector to ensure customer financial security (Aziz et al., 2023), alongside the optimization of big data management to support business strategies that maintain ethical standards (Ali & Darmawan, 2023).

Based on Article 4, letter h, and Article 7, letter g, of Law Number 8 of 1999 concerning Consumer Protection (*UUPK*), consumers have the right to receive, and business actors have the obligation to provide, compensation, indemnity, or replacement if the received goods or services do not conform to the agreement. Accountability in buying and selling transactions through e-commerce is, in principle, equivalent to

conventional contracts. This includes the platform's responsibility to ensure the smooth process of returned goods in Cash-on-Delivery (COD) transactions (Anugroh et al., 2023). Business actors are obligated to provide compensation for damages, contamination, or losses experienced by consumers as a result of using the goods or services they produce (Sinuhaji et al., 2025). In a broader scope, the mitigation of monopolistic practices that harm must also become a focus within the legal framework (Indarto et al., 2023).

With the increasing variety of risks in digital transactions, the urgency of establishing personal data protection regulations has become increasingly clear. Government Regulation (PP) Number 80 of 2019 concerning Trading Through Electronic Systems (PMSE) is a comprehensive regulation issued to provide legal certainty for all e-commerce activities. This regulation does not merely govern trading activities but encompasses broad aspects such as defining PMSE business actors, licensing, domain management, and placing a strong emphasis on consumer protection and personal data security (Maulana et al., 2023). Regional economic stability also depends heavily on the effectiveness of legal protection for business actors (Hardyansah & Putra, 2023).

Indonesia explicitly recognizes the validity of electronic agreements through Law No. 11 of 2008 concerning Information and Electronic Transactions, as amended by Law No. 19 of 2016, and Government Regulation (PP) No. 71 of 2019. Article 18, paragraph (1) of the ITE Law affirms that electronic transactions are valid and binding upon the parties, provided they fulfill the requirements for a valid agreement under the Civil Code (*KUHPerdata*). Thus, the standing of digital contracts is equal to that of conventional written contracts. The Indonesian legal system has provided full legitimacy to digital contracts as a legally binding tool in online buying and selling transactions (Ilham & Arini, 2024). Additionally, the perceived ease of use in digital payments contributes to consumer behavioral intentions in cyberspace (Kemarauwana & Darmawan, 2020).

Reality in the field shows that many consumer dispute cases remain sub-optimally resolved. Case studies on online fraud in Indonesia prove that robust legal protection is an urgent necessity for consumers (Ali et al., 2024). Criminal penalties for business actors who harm consumers have also been

established, for instance, under Article 62 of the *UUPK*, which imposes a maximum prison sentence of five years or a maximum fine of Rp2 billion. These criminal provisions in the *UUPK* strengthen the consumer's legal position by providing a deterrent effect for business actors who violate consumer rights (Zanariyah, 2025). All changes in work relationships and management in this literacy-based digital era demand a transformation in legal policies to be more adaptive (Darmawan et al., 2023). The success of consumer protection in electronic transactions is determined by the cooperation of all stakeholders: the government, business actors, and consumers who are intelligent and conscious of their rights.

Conclusion

Legal certainty in electronic transactions is a fundamental foundation that ensures all online buying and selling processes take place securely, transparently, and accountably. Indonesian law, through the ITE Law and the Civil Code (KUHPerdata), has recognized the validity of electronic agreements as equal to conventional contracts, providing strong legitimacy for every digital transaction. The consumer protection framework within the *UUPK* and *PP PMSE* provides a basis for the fulfillment of consumer rights, including the right to correct information, product safety, and compensation. Protection is implemented through two main mechanisms: preventive efforts (prevention of loss through digital literacy and information transparency) and repressive efforts (dispute resolution through litigation, non-litigation, and internal platform mechanisms). However, the effectiveness of legal protection still faces serious challenges, including weak law enforcement, the absence of comprehensive regulations on personal data protection, and low consumer awareness regarding demanding their rights. The success of consumer protection is ultimately determined by the close cooperation between three main pillars: the government as the regulator, business actors as providers of services in good faith, and smart consumers who are aware of their rights and obligations in the digital space.

The results of this discussion carry several important implications. From a theoretical perspective, this research reinforces the understanding that the theory of legal certainty, the principle of good faith, and the concept of balance between the rights and obligations of the parties remain relevant

and must be adapted into the realm of digital transactions that no longer involve physical encounters. These findings also underline the need to develop consumer protection theories that accommodate new risks in the digital era, such as personal data misuse, identity theft, online fraud, and the difficulty of tracing anonymous sellers. From a practical standpoint, the implications affect various parties. For the government, it is necessary to accelerate the formation of personal data protection laws, strengthen the capacity of the Consumer Dispute Resolution Agency (BPSK), and increase supervision and law enforcement against e-commerce business actors. For business actors, including platforms and online sellers, it is mandatory to implement product information transparency, provide easily accessible complaint mechanisms, and be responsible for providing compensation no later than seven days in accordance with Article 19 of the UUPK (Consumer Protection Law). For consumers, the urgent need is to increase digital legal literacy, read terms and conditions carefully, and have the courage to report violations. From a policy perspective, the government needs to harmonize national and international laws because electronic transactions are cross-border in nature, as well as expand digital legal education through collaboration with educational institutions, consumer communities, and e-commerce platforms to build collective awareness of rights and obligations in the rapidly evolving digital trade ecosystem.

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