

Transformation of Commercial Law in the Digital Era

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ABSTRACT

The development of digital technology has fundamentally transformed global trade patterns, including in Indonesia. Commercial law, which was previously oriented toward conventional transactions, now faces the reality of cross-border, data-driven, and electronically conducted digital trade. This study aims to analyze the relevance of classical commercial law principles in the digital era, identify legal challenges in electronic commerce, and formulate the direction of national commercial law reform. The research employs a normative juridical method with statutory and conceptual approaches. The results indicate that although fundamental principles such as freedom of contract, good faith, and legal certainty remain relevant, their implementation requires adaptation to the characteristics of digital transactions. Major challenges include data protection, jurisdictional uncertainty, and platform liability. Therefore, adaptive legal reform, harmonization with international law, and the strengthening of technology-based dispute resolution mechanisms are necessary.

Keywords: commercial law, digitalization, electronic contracts, consumer protection, legal reform.

INTRODUCTION

Commercial law is a subdivision of civil law that governs the legal relationships between business actors in trade and economic activities. Over time, the scope of commercial law is no longer limited to conventional transactions as stipulated in the Commercial Code (KUHD), but has undergone significant transformation due to advances in information technology and economic globalization. Digitalization has transformed trade patterns from face-to-face systems to cross-border, fast, and data-driven electronic transactions. This change marks a paradigm shift in commercial law from the traditional model to a legal system more adaptive to the digital reality (Setiawati et al., 2025).

These changes align with the views of Burri et al (2023) who assert that the digitalization of global trade has driven major reforms in international trade law. They explain that the traditional legal framework of trade, or brick-and-mortar trade law, is beginning to be replaced by a new model that is more adaptive to the digital reality. Trade is no longer solely focused on physical goods, but also on data, digital services, and electronic transactions conducted online across multiple countries simultaneously. In Indonesia, this challenge is even more pronounced because most trade law regulations are still rooted in the 1847 Dutch colonial Commercial Code (KUHD), which is no longer appropriate to today's digital economy. Solihah et al., in their research,

assert that "The results show that the Commercial Law system in Indonesia has not yet developed optimally to support digital business activities." They also state that "Old rules must be amended to provide better legal protection for businesses and consumers." (Solihah et al., 2025).

Furthermore, the digitalization of transactions also raises new issues related to consumer protection, personal data security, and the integrity of electronic payment systems. According to Solihah, aspects of Indonesian commercial law have not fully adapted to digital technology, necessitating regulatory revisions that can support equitable online business activities. Regulatory transformation is needed so that commercial law can regulate issues such as cyber contracts, cross-border transactions, and the responsibilities of digital platforms that act as trade intermediaries. Another tension that arises is between the principle of freedom of contract and the need for legal protection for consumers and small businesses. In the digital world, unequal bargaining power often occurs between large companies and individual users, so regulations are needed that balance freedom of contract with the principles of justice and protection of the vulnerable. Harmonization between the old Commercial Code (KUHD) and modern legal instruments such as the Electronic Information and Transactions Law (UU ITE), the Consumer Protection Law (UUPK), and the Government Regulation on Commerce Through Electronic Systems (PMSE) is crucial to ensure legal certainty and a sense of justice for all economic actors.

In the same study, Setiawati et al. (2025) added that "A normative approach is taken to examine the technological transformation in international trade law, especially regarding regulation and dispute resolution in the digital era. Trade law updates must depart from in-depth research that considers normative, ethical, and practical aspects in legal implementation. Setiawati also explained that technological advances such as artificial intelligence, cloud computing,

and blockchain require continuous legal adaptation so that the legal system remains relevant and able to protect justice amidst the industrial revolution 4.0.

Based on the above description, several main issues that are the focus of this study can be formulated, namely how relevant are the principles of classical trade law in facing digital transformation, what are the legal challenges that arise in cross-border electronic commerce, what is the direction of Indonesian trade law reform to be able to adapt to global developments, and to what extent trade law can provide fair protection for consumers and business actors in the digital economic system.

MATERIALS & METHODS

This research employs a normative juridical method, an approach conducted through the study of secondary legal materials in the form of laws and regulations, legal literature, and previous research results relevant to the topic discussed. The approach used includes a legislative approach to examine various regulations governing trade law and electronic transactions, as well as a conceptual approach to understand the legal principles and theories developing in modern trade law. Furthermore, this research also uses a limited comparative approach to examine the development of digital trade law at the international level. Data analysis was conducted qualitatively using a descriptive-analytical method, namely by outlining existing problems and linking them to applicable theories and legal provisions to obtain comprehensive conclusions.

DISCUSSION

1. Basic Concepts and Principles of Commercial Law

Commercial law is a subsection of civil law that governs the legal relationships between business actors in economic activities and commercial transactions. It serves as a regulatory and protective instrument in the business world, ensuring that all forms of commercial activity operate within legal boundaries that guarantee certainty, justice,

and benefit. According to the Commercial Code (KUHD), which has been in effect in Indonesia since 1847, commercial law regulates the actions of traders, including buying and selling, trading companies, shipping, insurance, and securities. However, over time, the scope of commercial law has expanded to include modern aspects such as e-commerce, digital contracts, and cross-border trade.

In the Indonesian legal system, commercial law does not stand alone, but rather has a close relationship with various other legal sources such as the Civil Code (KUHPerdata), Law Number 40 of 2007 concerning Limited Liability Companies, Law Number 7 of 2014 concerning Trade, Law Number 8 of 1999 concerning Consumer Protection, and Law Number 11 of 2008 in conjunction with Number 19 of 2016 concerning Information and Electronic Transactions (UU ITE). All of these legal instruments form a dynamic and comprehensive national commercial law system, regulating both conventional and digital transactions. The fundamental principles in commercial law are the main foundation in maintaining a balance between the interests of business actors, consumers, and the state. Three main principles that are often used as a basis are the principle of freedom of contract, the principle of good faith, and the principle of legal certainty.

a. Principle of Freedom of Contract

The principle of freedom of contract is a principle that gives the parties the freedom to create and determine the content, form, and terms of a contract according to their wishes, as long as it does not conflict with laws and regulations, public order, and morality. Martiana emphasized that "The principle of freedom of contract in a surrogacy agreement allows the parties to formulate their own terms according to their needs, as long as it does not conflict with the principles of civil law and morality."

However, Martiana (2024) also reminded that "In practice, there are challenges when the weaker party does not have an equal

bargaining position, so that freedom can become a tool of exploitation." This means that the principle of freedom of contract should not be interpreted as absolute freedom, but must be balanced with the principle of protection for the economically or socially weaker party. This is important in commercial law, where the unequal bargaining position between large companies and small business actors often leads to violations of contractual justice. In line with this, Anggriani, et al (2024) explained that the principle of freedom of contract does provide high flexibility in business transactions, but its application is limited by legal norms, morality, and the public interest to prevent abuse. They emphasized that this principle allows the parties to determine the content and form of the contract as needed, as long as it does not violate applicable regulations.

b. Principle of Good Faith

In modern commercial law, the principle of good faith occupies a fundamental position alongside the principle of freedom of contract. While freedom of contract guarantees the parties' right to enter into agreements as they see fit, good faith serves as a moral guideline that ensures that this freedom is not abused. This principle requires that all parties involved in a business relationship act honestly, fairly, and responsibly, throughout the negotiation, implementation, and settlement stages of the agreement. Without honesty and mutual trust, commercial relationships lose their moral and social legitimacy. In the context of digital commerce, the meaning of good faith has expanded to a more complex level. It not only demands honesty in action but also requires parties to maintain the security of personal data, the reliability of transaction systems, and transparency in every digital process. As commerce shifts from the physical to the virtual world, the risk of breaches of trust increases, from misuse of personal data, online fraud, to fraudulent electronic contracts. Businesses must make good faith a key foundation in building a

digital business reputation. Honesty in providing product information, transparency regarding additional costs, and protection of consumer data are concrete manifestations of the application of this principle in the digital era.

The application of the principle of good faith in digital trade law is clearly reflected in electronic contracts. According to Wardani, Safirah, and Qurrotulaini, "An electronic contract is a written contract created using a computer and signed by the system." Technological developments have introduced a new form of contract that no longer relies on physical meetings between the parties. The validity of a contract now depends on the authenticity of digital data, electronic signatures, and the security system used. This change has significant implications for the traditional concept of agreements as regulated in the Civil Code (KUHPer). In conventional agreements, physical presence and the signing of paper documents are strong evidence of an agreement, while in digital systems, all of this shifts to electronic data that has equal legal value.

Wardani et al. (2024) added that technological advances have fundamentally changed the way humans conduct legal acts in the field of contracts, including online buying and selling and leasing. Business activities that once required in-person meetings can now be done simply with a click and confirmation on a digital platform. However, this convenience also brings more complex legal consequences. For example, who is responsible if the system experiences a disruption, or how can proof be provided if one party denies the validity of a transaction? In situations like these, the principle of good faith becomes the basis for assessing whether an action meets the principles of honesty and legal responsibility.

This view is reinforced by Ebrahimi, who emphasized that in electronic contracts, the parties are often located at different locations and times, making determining when and where the contract is considered formed a highly complex legal issue (Ebrahimi, 2023).

This situation differs from conventional contracts, which typically have a clear time and place for the agreement to be made. In cross-border digital transactions, for example, the seller may be in Indonesia while the buyer is in Europe. Questions such as "which country's law applies?" or "where is the contract considered valid?" become real jurisdictional issues. The issue of cross-border jurisdiction in electronic contracts is one of the biggest challenges in digital commerce law. Each country has a different legal system, contract standards, and dispute resolution procedures. When a dispute arises, it is not uncommon for the parties to argue about which law should be used to assess the contract. Good faith serves as a universal norm that binds the parties to uphold the principles of honesty and fairness, even within different legal regimes. This principle also serves as a moral bridge that allows disputes to be resolved peacefully and proportionally without sacrificing the interests of weaker parties, such as individual consumers or small businesses.

c. Principle of Legal Certainty

The principle of legal certainty is a fundamental element in creating a stable and trustworthy business climate. In the business world, legal certainty is necessary so that economic actors can predict the legal consequences of every action they take. This certainty also ensures that the law is not interpreted arbitrarily, but is applied consistently and fairly by law enforcement officials and judicial institutions. Makmur and Ilham emphasize that the dynamics of the implementation of contracts in e-commerce transactions demonstrate the importance of regulatory reform so that legal certainty can reach the digital world (Makmur & Ilham, 2024). They explain that contracts in e-commerce involve not only the exchange of goods and services, but also aspects of personal data, system security, and technological reliability. Wardani et al. emphasize that the ITE Law serves as a legal basis that facilitates electronic contracts and guarantees the validity of digital signatures

as legal evidence (Wardani et al, 2024). However, for legal certainty to truly be realized, regulations must be accompanied by consistent law enforcement and guidance for business actors to understand their obligations and responsibilities in digital transactions.

These basic principles form a crucial foundation for the transformation of commercial law in the modern era. However, changing transaction patterns and the emergence of new technologies pose legal challenges that have not yet been fully addressed. Therefore, the following section will explain the dynamics and challenges of commercial law in the era of global digitalization.

2. Dynamics and Challenges of Commercial Law in the Era of Global Digitalization

The development of global digitalization has brought about significant changes in the face of global trade, including in Indonesia. Business activities that were once centered on physical interactions have now shifted to technology-based trading systems. While in the past, transactions were conducted in person through meetings between sellers and buyers, now almost the entire trading process can take place online through various digital platforms such as e-commerce, fintech, and global marketplaces. This shift is not merely a technical change, but also a transformation of economic and legal paradigms, requiring an update to the commercial law system to address the challenges of modern, fast-paced, cross-border transactions. Commercial law, previously focused solely on conventional aspects, is now confronted with the complex phenomenon of digital trade, involving business actors from various jurisdictions and legal systems.

This transformation has created a pressing need for legal certainty in the digital space. Online trading activities possess unique characteristics, such as the absence of geographical boundaries, the anonymity of transaction participants, and the use of electronic data as legal evidence. This raises

fundamental questions regarding the validity of electronic contracts, the responsibilities of the parties, and the mechanisms for resolving disputes arising from online transactions. In commercial law, legal certainty is a key factor in ensuring business actors feel secure in conducting their economic activities. Without such certainty, the potential for disputes will increase and trust in the digital trading system could decline significantly. E-commerce transactions are the most obvious example of this digital trade transformation, which demands legal adaptation. In this system, sellers and buyers no longer meet physically but interact through online platforms that facilitate communication, payment, and delivery of goods. In such conditions, trust becomes a fundamental element that replaces the traditional "delivery of goods" function. This trust is built not only through the seller's reputation or the security of the payment system, but also through clear legal protection of the rights and obligations of each party. As stated by Makmur and Ilham, "In the Indonesian e-commerce system, trust between sellers and buyers remains the foundation of electronic transactions. Approval in an electronic transaction is considered an act of acceptance that states agreement in the electronic transaction agreement."

In practice, numerous challenges arise with the development of digital technology in commerce. For example, issues regarding personal data protection, transaction security, and online fraud are serious concerns. Many business actors, particularly those in the micro, small, and medium enterprise (MSME) sector, still lack a thorough understanding of the legal implications of their digital activities. Some even conduct transactions without a clear legal basis, such as electronic contracts that do not meet the requirements for a valid agreement. Furthermore, many people still lack a clear understanding of their rights and obligations as digital consumers, particularly regarding complaints or dispute resolution. The need for adaptive regulations is increasingly pressing as technological

developments become more rapid and complex. Indonesian trade law must be able to transform to accommodate these developments without losing its fundamental principles of legal certainty and justice. The government and policy-making institutions need to harmonize national regulations with international law, given the cross-border nature of many digital transactions. This synchronization is crucial to ensure Indonesia remains competitive with other countries in creating a competitive and trustworthy business climate in the global era. Furthermore, strengthening law enforcement agencies is also crucial in maintaining the integrity of the digital trade system.

Another aspect that needs attention is technology-based trade dispute resolution mechanisms. In the digital age, dispute resolution can no longer rely solely on conventional mechanisms like courts. Instead, it is necessary to adopt faster, more efficient, and digitally based systems, such as Online Dispute Resolution (ODR). This system allows parties to resolve disputes online, without the need for face-to-face meetings, while still prioritizing the principles of fairness and transparency. This mechanism has been widely implemented in developed countries and has proven effective in reducing the burden on conventional courts. Implementing a similar system in Indonesia would be a progressive step in strengthening the position of trade law in the digital age.

In this fast-paced digital era, data security has become one of the most crucial issues in modern commercial law practice. The business world no longer relies solely on physical transactions but also on the exchange of sensitive and high-value digital information. Consumers' personal data, transaction history, and shopping preferences are now commercial assets that can determine the direction of a company's business strategy. However, the economic value of this data also poses significant risks, especially if it falls into the wrong hands.

Responsibility for data security can no longer be viewed merely as a moral obligation, but rather as a legal obligation inherent in every digital business. Online trading platforms, marketplaces, and information technology service providers have a legal responsibility to maintain the integrity and confidentiality of their users' data. They not only act as intermediaries between sellers and buyers, but also as legal entities obligated to ensure that every transaction takes place in a secure and transparent environment. Failure to maintain these aspects can result in serious legal consequences, including administrative sanctions, civil lawsuits, and criminal prosecution.

In reality, many large platforms have not consistently implemented the principle of data protection by design. This principle requires every digital system to be designed with data protection in mind from the initial development stage. However, many companies still view data security as an additional aspect, rather than a primary priority. As a result, data leaks, digital identity theft, and the misuse of personal information frequently occur. These incidents not only harm consumers but also erode public trust in the digital commerce ecosystem as a whole. According to Dianta (2023), another issue complicating the legal landscape of digital commerce in Indonesia is regulatory uncertainty regarding business licensing. He highlighted that there are exceptions to the requirement to have a Trade Business License (SIUP) for small, individual businesses operating their own businesses.

This phenomenon demonstrates that legal protection in the digital commerce world is still not fully established. On the one hand, the state encourages freedom of business as part of the spirit of the creative economy. However, on the other hand, weak oversight and unclear regulations have the potential to create inequality in the application of the law. As a result, a dual system emerges: large businesses are subject to strict regulations, while small businesses often operate in a legal gray area. To maintain balance in the

digital ecosystem, legal reform is needed that is not only responsive to technological developments but also adaptive to the characteristics of micro and small businesses. Makmur and Ilham's (2024) perspective provides a comprehensive framework, they state that every obligation arising from an electronic contract must be viewed as an integral part of the national civil law system. The principles of justice, certainty, and legal benefit must be the main pillars in assessing the validity and enforcement of digital contracts.

Currently, legal interpretation of digital transactions still relies heavily on general norms in the Civil Code (KUHPer), particularly regarding the principles of agreement, good faith, and legal responsibility. This situation creates broad scope for interpretation, which on the one hand provides flexibility for judges and legal academics, but on the other hand creates potential inconsistencies in the application of the law. In international practice, the resolution of electronic contract disputes is often carried out through the principle of choice of law and forum selection clauses. This principle gives parties the freedom to determine which law to use and where to resolve disputes. For example, an Indonesian-based company may enter into a contract with a Japanese partner but choose Singaporean law as the basis for their contract. This approach is commonly used in the global business world to avoid jurisdictional uncertainty. However, the implementation of this principle in Indonesia remains suboptimal due to low legal awareness among business actors.

Most digital businesses in Indonesia still draft contracts without including applicable legal clauses. When disputes arise, whether due to breach of contract or violation of consumer rights, there is no clear legal basis for determining the competent jurisdiction. As a result, the dispute resolution process is protracted and often detrimental to both parties. This highlights the need to improve digital legal literacy for both businesses and consumers, ensuring they understand their

legal rights and obligations in every online transaction. Personal data protection also has broader dimensions. This protection relates not only to the technical aspects of system security but also to the ethical responsibility of businesses in managing user information. Transparency in data use, clarity of processing permissions, and the user's right to control their personal data must be core principles of any privacy policy. When these rights are ignored, the outcome is not only a violation of the law but also a violation of the fundamental values of trust in business relationships.

Globally, many countries have strengthened regulations regarding personal data protection, such as the General Data Protection Regulation (GDPR) in the European Union. Indonesia has actually begun moving in this direction through Law Number 27 of 2022 concerning Personal Data Protection, but its implementation still faces significant challenges. Compliance oversight, sanction enforcement, and the capacity of regulatory agencies still require significant improvements to effectively protect user rights in the digital space. Digital trade law should serve as a legal umbrella that not only regulates contractual relationships between business actors but also ensures the security of the digital economy ecosystem as a whole. Vague regulations, weak law enforcement, and low public legal awareness are key obstacles that must be overcome. Therefore, synergy between the government, the private sector, academia, and civil society is essential to create a responsive, progressive, and fair digital legal system.

Digitalization has also created a new dimension in the legal responsibilities of digital platforms. Platforms like Tokopedia, Shopee, or Lazada not only serve as meeting places for sellers and buyers, but also function as transaction traffic regulators, data storage, and even payment system providers. Digital platforms have the potential to bear dual legal responsibilities towards both consumers and third parties. This is where strengthening the legal framework governing

the legal responsibilities of digital platforms is crucial, ensuring they align with the principles of consumer protection and cybersecurity. The digitalization of trade demands a renewal of the legal paradigm, with flexibility and adaptability becoming integral to modern commercial law. If the legal system fails to adapt, legal certainty will be eroded by the ever-evolving complexity of technology.

These various issues emphasize that the national commercial law system remains reactive and not yet proactive in responding to technological advances. Therefore, adaptive and visionary legal reform is needed to enable Indonesia to adapt to global trends. The following discussion will outline the direction of reorientation and renewal of national commercial law as a concrete form of transformation toward a modern legal system.

3. Reorientation and Renewal of National Commercial Law

The era of global digitalization has brought profound changes to the world's economic order and trading system. The increasingly rapid flow of globalization, supported by rapid advances in information and communication technology, has created new patterns in cross-border economic relations. Trade activities that once relied on physical interactions and conventional bureaucracy have now shifted to digital systems that are automated, efficient, and cross-border. This situation forces the commercial law systems of every country, including Indonesia, to adapt to remain relevant. Commercial law no longer only regulates the sale and purchase of tangible goods, but must also accommodate the dynamics of digital transactions, electronic contracts, and the movement of virtual assets that are now part of the global economic ecosystem. Indonesia faces significant challenges because the majority of its commercial law provisions are still derived from the *Wetboek van Koophandel* (KUHD), the Commercial Code, a legacy of the Dutch colonial era. This legal system emerged from the 19th-century economy,

when trade focused on physical transactions and did not yet recognize the concepts of digitalization or electronic transactions. In the modern digital economy, the applicability of the KUHD is limited because it cannot accommodate developments such as e-commerce, fintech, smart contracts, and blockchain-based trading systems. As a result, many new economic activities are moving faster than the regulatory capacity to regulate them, resulting in a gap between business practices and their legal framework. Reform of Indonesian trade law is an urgent need. This reform must be directed at creating a legal system that not only regulates but also facilitates economic innovation. A reorientation of national trade law is necessary to adapt to the cross-border, automated, and data-driven nature of digital transactions. This reform is not merely cosmetic or administrative in nature, but rather encompasses the substance of the law, including its underlying philosophy. Within this, two main pillars must underpin trade law reform: first, updating the legal substance to align with advances in digital technology and the global economy; and second, harmonizing national regulations with international legal standards established by institutions such as UNCITRAL (United Nations Commission on International Trade Law), the WTO (World Trade Organization), and the ASEAN Agreement on Electronic Commerce.

Two key pillars of Indonesian trade law reform play a crucial role in shaping the future direction of the national economic legal system. The first pillar, legal substance reform, emphasizes the need for comprehensive adjustments to outdated articles in *the Commercial Code* (KUHD) that are no longer aligned with the realities of the digital economy. This pillar emphasizes the modernization of legal norms to respond to the changing characteristics of contemporary economic transactions, which are increasingly technology-based. Meanwhile, the second pillar, international legal harmonization, implies that Indonesia must open itself to established global trade

law practices and principles, so that the national legal system can keep pace with the dynamics of an increasingly integrated global economy. Legal substance reform is particularly urgent because many provisions in the KUHD are still rooted in the 19th-century Dutch *Wetboek van Koophandel*. These norms emerged in the context of traditional trade, which centered on the exchange of physical goods and direct face-to-face relationships between parties. In the context of today's digital economy, this concept is no longer adequate. For example, regulations regarding payment instruments are still oriented towards cash transactions and have not yet accommodated digital instruments such as *e-wallets*, *cryptocurrencies*, or digital *payment gateways* which have now become an integral part of the modern trade ecosystem. Furthermore, the legal provisions relating to sales and purchase contracts in the Commercial Code are still dominated by conventional principles that fail to anticipate the emergence of electronic agreements. In online transactions, parties often do not meet in person but interact through digital platforms with electronic signature systems. The aspects of proof and contract validity present new legal issues that cannot be addressed by the old articles. Legal reform is needed to ensure that digital contracts have the same legal force as traditional written agreements, as long as they meet the elements of agreement, capacity, a specific object, and a lawful cause. The pillars of legal substance reform must also address the aspect of legal responsibility in online transactions. In conventional systems, sellers and buyers bear direct responsibility for their legal actions. However, in digital commerce, third parties such as platform providers (*marketplaces*), payment service providers, and data managers play significant roles. Their presence creates complexity in determining who will be held responsible in the event of default, fraud, and data breaches. Without adequate legal reform, enforcing legal responsibility becomes difficult.

The second pillar, the harmonization of international law, requires Indonesia to adopt the principles of global trade law that have been tested in cross-border trade. Today's world no longer recognizes geographical boundaries in economic activity. Transactions between sellers in Jakarta and buyers in Tokyo can be conducted in seconds through digital platforms. In this context, uniformity in legal norms is crucial to ensure that businesses have legal certainty and balanced protection. Harmonization is also key to attracting foreign investment, as investors tend to seek jurisdictions with stable, transparent legal systems that align with international standards. Integrating the national legal system with international law also has strategic implications for Indonesia's position in global economic forums. By aligning domestic regulations with provisions from institutions such as *the World Trade Organization (WTO)*, *the United Nations Commission on International Trade Law (UNCITRAL)*, and *the ASEAN Framework Agreement on e-Commerce*, Indonesia can play a more active role in formulating regional and global trade policies. This harmonization not only strengthens national legal competitiveness but also increases international confidence in the Indonesian legal system as a foundation for cross-border investment and business. As emphasized by Pahlefi, et al (2024), "More flexible and adaptive trade law reform is needed to address this issue". Indonesian trade law must not be trapped in the old, rigid and static paradigm. The digital world is evolving at a breakneck pace; current business models can change completely in a short time. Laws need to be designed as adaptive laws, that is, laws that can adapt to technological innovation and economic dynamics, without sacrificing the fundamental principles of legal certainty and justice for the community. Traditional trade law systems such as the Commercial Code (KUHD) are no longer sufficient to address the complexities of digital trade. Modern business structures not only revolve around the sale and purchase of physical goods but

also encompass digital services, virtual assets, and data as new forms of legal commodities. For example, *cloud computing-based services*, *non-fungible token (NFT)* transactions, or the trading of digital assets such as *crypto assets* all demand clearer legal recognition. Without adaptive regulations, businesses and consumers could potentially be trapped in legal uncertainty when disputes arise.

The digital business ecosystem does not exist in isolation. It involves numerous actors, from software developers and platform providers to online financial institutions and logistics providers, as well as government regulators. Each party has distinct interests and legal responsibilities. Comprehensive legal reform must accommodate the interests of all these parties to create a fair, efficient, and sustainable trading system. Trade law reform also has important social and economic dimensions. Strong legal certainty will increase public trust in digital trading activities, expand economic participation, and encourage the growth of business innovation. When the law guarantees transaction security and protects consumer rights, the digital economy will grow on a more solid foundation. Conversely, if the law lags behind technological developments, the potential for abuse, online fraud, and monopolistic practices will increase.

In addition to formal regulatory aspects, trade law reform also needs to address educational and cultural dimensions. Public and business awareness of their rights and obligations in digital transactions remains low. Many businesses still don't understand the importance of including *terms of service*, *privacy policies*, or dispute resolution clauses in electronic contracts. Yet, these elements are crucial forms of legal protection in the context of cross-platform commerce. To face the challenges of globalization and digital transformation, Indonesia needs to build a future-oriented trade law system. The law must be an instrument that not only regulates but also facilitates economic innovation. The principles of justice, certainty, and benefit, which underpin

national law, must be applied dynamically to protect all business actors without hindering the growth of the digital economy.

In dispute resolution, the commercial law paradigm also needs to be updated to accommodate the rapid and cross-jurisdictional nature of digital commerce. Conventional dispute resolution processes in court are often considered slow and inefficient for handling digital cases that require real-time responses. The Online Dispute Resolution (ODR) approach has become highly relevant. This system allows parties to resolve disputes online, using a transparent, efficient, and affordable digital platform. Pahlefi et al. (2024) emphasize that, "To resolve conflicts in digital transactions, a faster, more effective approach is needed, and one that is compatible with the technology used". In addition to updating regulations and dispute resolution mechanisms, modernizing commercial law must also address digital legal literacy among the public. Without adequate understanding, businesses and consumers risk becoming victims of technological misuse, such as online fraud or personal data breaches. The government, academics, and industry players must collaborate to raise legal awareness in the field of digital transactions to ensure the principles of fairness and consumer protection are maintained. Furthermore, the legal education system also needs to transform by strengthening the curriculum of technology law, cyber law, and digital economy law to produce a generation of legal experts who understand the complexities of the digital world.

Modernization of trade law must also consider the principles developed in international standards. For example, UNCITRAL has issued a Model Law on Electronic Commerce and a Model Law on Electronic Signatures, which can be used as references in developing national regulations. These standards emphasize the importance of non-discrimination regarding electronic documents, the validity of digital signatures, and information integrity in

cross-border transactions. Indonesia, as part of the global trading community, needs to adapt its domestic regulations to align with these principles. Without harmonization of international law, legal certainty for businesses will be difficult to achieve, particularly in resolving cross-jurisdictional trade disputes. Regionally, the ASEAN Agreement on Electronic Commerce (2019) also marks an important milestone for Southeast Asian countries in developing a secure, inclusive, and trusted digital trade ecosystem. This agreement encourages the development of legal infrastructure that supports electronic transactions, personal data protection, and strengthening consumer trust in the digital environment. Indonesia, as an ASEAN member, has a responsibility to implement this agreement through consistent and compatible national regulations.

Bayoa and Faslah (2025) reinforce this view by emphasizing that "To address this, commercial law reforms are needed that embrace technological innovation, provide better protection to consumers, and properly regulate the responsibilities of digital platforms". The reforms in question are oriented not only toward updating norms but also toward establishing a new legal culture that values digital ethics, transparency, and accountability. They also highlight the challenges arising from the imbalance in bargaining power between large businesses and small consumers in online transactions. Bayoa and Faslah (2025) emphasize that digital business contracts are often characterized by unclear legal status, particularly regarding the validity of electronic contracts, digital signatures, and transaction evidence. They argue that modern commercial law must strengthen the principle of the validity of electronic contracts and expand the recognition of digital documents as valid evidence in court. Beyond substantive aspects, trade law reform must also address institutional and law enforcement dimensions. Trade law enforcement in Indonesia still faces classic challenges such as slow bureaucracy, overlapping regulations, and a lack of legal

human resources familiar with digital technology. In this regard, the government needs to strengthen inter-agency coordination, particularly between the Ministry of Trade, the Ministry of Communication and Information Technology, and consumer protection authorities. The establishment of a dedicated agency such as the Digital Commerce Regulatory Authority could be a progressive step to comprehensively oversee and enforce laws in the digital trade sector. In addition to the government, businesses also have a strategic role in reforming national trade law. Businesses need to actively participate in the regulatory development process by providing input based on industry practices. Collaboration between the government, businesses, and academics will produce trade laws that are realistic, implementable, and sustainable.

From a legal economics perspective, the reorientation of commercial law also serves to create distributive justice amidst digital economic disruption. This justice concerns not only the distribution of economic benefits but also access to legal justice. When digital contracts are created automatically by the system, consumers often find themselves at a disadvantage. Therefore, reforms to commercial law must ensure a simple complaint mechanism, strong consumer protection, and transparency of information in every transaction. Furthermore, ethical aspects of digital commercial law must be strengthened. The principles of good faith and fair dealing need to be reaffirmed in online transactions. In a digital world full of algorithms and automation, the moral responsibility of business actors is often pushed aside by technological efficiency. Thus, the transformation of modern commercial law involves not only revising old regulations but also establishing a new legal paradigm aligned with the principles of justice, transparency, and digital ethics.

CONCLUSION

Indonesian trade law is currently at a critical point that requires transformation from a

classical paradigm to a modern digital framework that is adaptive to global developments. This transformation is necessary due to the growing reliance on information technology, electronic transactions, and the digital economy. Nevertheless, the principles of legal certainty, justice, and expediency must remain protected to ensure balanced protection for businesses and consumers. Harmonization between national and international regulations is also essential, particularly in addressing cross-border trade activities and digital economic innovations such as e-commerce, fintech, and blockchain. To strengthen the commercial legal system in the digital era, collaboration among policymakers, academics, and business actors is essential. Regulatory reforms concerning electronic transactions, personal data protection, and online dispute resolution must be prioritized. In addition, digital legal literacy should be improved through education and research, while businesses are encouraged to enhance compliance and competitiveness. The government should also develop efficient and technology-based dispute resolution mechanisms, such as online mediation and digital arbitration, to create a progressive and equitable commercial legal system.

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