

Legal Dynamics of Electronic Contracts in the Digital Era A Civil Law Review

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Abstract

This study discusses the legal dynamics of electronic contracts in the digital era, focusing on a review of civil law in Indonesia. In the ever-evolving digital era, electronic contracts play an important role in accelerating transactions and expanding economic reach. Although recognized by the Electronic Information and Transactions Law (UU ITE) and related regulations, the implementation of electronic contracts still faces various challenges, especially related to validity, identity verification, data security, and user privacy. This study uses a normative legal approach to analyze existing regulations and identify problems in practice. The results of the study indicate that although the legal framework has provided a sufficient foundation, implementation challenges in the field, such as low legal awareness and rapid technological developments, require further adjustments. This study recommends strengthening regulations, increasing legal education, and harmonizing international law as steps to improve the effectiveness of electronic contracts in Indonesia. With these steps, electronic contracts can be used more widely and safely in supporting the growth of the digital economy.

Keywords: *Electronic contracts, civil law, data security*

INTRODUCTION

In the last two decades, advances in information and communication technology have changed the paradigm of many sectors, including the legal sector, especially in the context of electronic contracts. The digital era, characterized by the existence and dominance of electronic transactions, has given rise to various new challenges and opportunities in the application of civil law. Electronic contracts, as a legally valid medium of agreement, now occupy an important position in global economic activities, thus demanding a deep understanding of its legal dynamics. (Ghany and Yandi 2024)

This paradigm shift affects not only how individuals and business entities conduct transactions, but also how those contracts are regulated, enforced, and defended in courts or through other dispute resolution mechanisms. Electronic transactions enable speed and efficiency that conventional methods cannot match, but they also introduce certain complexities, especially related to legal aspects such as validity, security, and digital evidence.

In the context of Indonesian law, Law Number 11 of 2008 concerning Electronic Information and Transactions (UU ITE) and its amendments, is the legal basis governing electronic transactions, including electronic contracts. However, there are issues that arise from the application of this law, especially related to the interpretation and adaptation of traditional civil law to transactions conducted digitally. The exponential growth of e-commerce and the digitalization of financial services in Indonesia suggests that electronic contracts will continue to be a major element of the economic landscape. However, this also raises critical questions about the extent to which the national civil law framework can support this innovation without sacrificing legal protection for all parties involved. Therefore, a comprehensive analysis of how civil law in Indonesia responds to the existence and evolution of electronic contracts is essential. (2018 Novel)

This analysis should take into account factors such as the validity of electronic signatures, provisions on evidence in electronic contract disputes, and privacy and data security issues. It should also consider how national policies and legislation adapt to international norms, such as the Model Law on Electronic Commerce

adopted by UNCITRAL, which is widely considered the global standard for regulating electronic transactions. (Rizal 2024)

Given this context, this study aims to examine in depth the legal dynamics of electronic contracts in the digital era in Indonesia, with a focus on civil law review. Through this study, it is hoped that a better understanding of how civil law can and should adapt to the needs of modern, increasingly electronic transactions can be produced.

From the background that has been described, there are two problem formulations that are the main focus of this study: How is the validity of electronic contracts regulated in the framework of Indonesian civil law, and what are the challenges that arise in practice? And What are the implications of data security and privacy in electronic contracts for legal protection for users in Indonesia?

This research is expected to provide not only a comprehensive legal analysis, but also policy recommendations that can help draft laws that are more adaptive and protective of technological developments and community needs. Electronic Information and Transactions Law (UU ITE) The ITE Law, first enacted in 2008 and amended in 2016, is a major regulatory milestone governing the use of electronic transactions in Indonesia. This law recognizes the validity of electronic contracts with certain conditions that must be met to ensure security and fairness for all parties involved. For example, Article 11 of the ITE Law states that electronic information and/or electronic documents and their printouts are valid legal evidence. This is a significant step in adapting civil law to the digital reality. Regulation of the Minister of Communication and Information No. 20 of 2016 concerning Protection of Personal Data in Electronic Systems This regulation adds a layer of protection for users in electronic transactions, especially related to the privacy and security of personal data. This regulation requires that electronic system organizers must ensure that the collection, use, and exchange of data is carried out in a safe manner and in accordance with user consent. (Zarzani, Aspan, and Lubis 2021)

In the field, the adoption and implementation of electronic contracts face several challenges Low Legal Awareness From data collected through surveys by several research institutions, it is clear that many internet users in Indonesia are still unaware of their rights in electronic transactions. For example, many users do not read or understand the terms and conditions they agree to online, which can result in legal or financial losses without them realizing it. Fraud Cases and Data Security Cybercrime reports in Indonesia show an increase, especially related to electronic transactions. According to data from the Directorate of Cyber Crime at the National Police Criminal Investigation Department, online fraud cases increased by 20% from 2018 to 2019. This highlights the need for increased security and stricter policies in electronic transactions. Technological Developments and Public Policy Technology continues to develop at a very fast pace, while changes in regulations and laws tend to move more slowly. This creates gaps where transactions can occur without adequate legal protection. For example, the emergence of blockchain technology and smart contracts introduces new ways of contracting that are not yet fully regulated in Indonesian civil law.

METHOD

This study uses a normative or doctrinal legal approach, which focuses on the analysis of laws and regulations relevant to electronic contracts in the digital era. Secondary data in the form of primary legal materials, such as laws, regulations, and government regulations, as well as secondary legal materials such as journals, books, and articles, will be collected and reviewed to gain an in-depth understanding of the legal framework governing electronic contracts. This study will use a descriptive analytical method, namely describing and analyzing the collected data systematically, critically, and logically to answer the formulation of the problems that have been set. Data collection techniques include literature studies and relevant legal documentation, followed by normative analysis to assess the effectiveness of existing regulations and provide constructive recommendations related to improving electronic contract regulations in Indonesia. (Indra Utama Tanjung 2024)

RESULTS AND DISCUSSION

Validity of Electronic Contracts Regulated Within the Framework of Indonesian Civil Law

Electronic contracts have become the backbone of trade and service transactions in the digital era, providing convenience, efficiency, and wider coverage for economic actors in Indonesia. Although its existence is increasingly necessary, there are still various challenges faced related to the validity and practice of electronic contracts within the framework of Indonesian civil law. In an effort to provide a more comprehensive understanding, the relevant legal framework, expert opinions, and implementation challenges that often arise in the field will be outlined. (Biondy 2016)

Law Number 11 of 2008 concerning Electronic Information and Transactions (UU ITE), which has been amended by Law No. 19 of 2016, is the main legal basis governing the use of electronic contracts in Indonesia. The ITE Law recognizes that electronic information and electronic documents can be used as valid evidence in court. Article 5 of the ITE Law explicitly clarifies the legal status of electronic documents, making them equal to traditional documents in the context of civil law as long as they meet the general principles of agreements stipulated in the Civil Code (KUHPdata). (Sinaga, Mahat, and Simarmata 2023)

The Civil Code, through Article 1320, states that an agreement is considered valid if it meets four essential requirements: there is an agreement between the parties, the capacity of the contracting parties, a clear object of the agreement, and a lawful cause. In the context of electronic contracts, agreements can occur through various forms of electronic communication such as email or instant communication, as long as they are clear and verifiable.

Prof. Dr. Bambang Waluyo, a professor of civil law, emphasized the importance of a deep understanding of how civil law principles are applied in a digital context. He argued that while electronic contracts are legally as valid as conventional contracts, the main challenge lies in identity verification and authentication of electronic signatures. According to him, "Strong identity assurance and undeniable authentication are key to increasing trust in electronic contracts." (2018 Novel)

Andi Yulianto, SH, a legal practitioner specializing in technology law, also added that one of the biggest challenges in electronic contracts is ensuring the integrity of documents over time. He stated, "In the digital era, where data can be easily changed, we need a mechanism that ensures that documents are not changed after an agreement is reached. Technologies such as blockchain can offer a solution to this problem by providing an immutable ledger."

Implications of Data Security and Privacy in Electronic Contracts for Legal Protection for Users in Indonesia

In this ever-evolving digital era, electronic transactions have become an inseparable part of economic and social activities. The use of electronic contracts has enabled higher efficiency, lower costs, and greater speed in various transactions. However, this progress also brings significant implications regarding data security and privacy. In Indonesia, the issue of data security and privacy in electronic contracts has become a serious concern for users and regulators, especially considering the potential high risk of personal data breaches. Therefore, understanding and addressing this issue is not only important from an ethical perspective, but also essential in a legal context to protect user rights. (Sinaga, Mahat, and Simarmata 2023)

Indonesia has taken proactive steps by establishing several regulations designed to protect user data and privacy in the digital ecosystem, including in the context of electronic contracts. Law Number 11 of 2008 concerning Electronic Information and Transactions (UU ITE), as revised by Law Number 19 of 2016, is the legal foundation that recognizes and regulates the use and security of electronic transactions. The ITE Law emphasizes that electronic information and electronic documents are valid legal evidence, and includes specific provisions regarding the security and privacy of electronic data.

Article 26 of the ITE Law states that anyone who processes personal data must obtain written consent from the data subject, indicating a legal obligation to protect user privacy. Furthermore, the Regulation of the Minister of Communication and Information Technology No. 20 of 2016 concerning Protection of Personal Data in Electronic Systems adds a layer of protection by requiring electronic system organizers to maintain the confidentiality, integrity, and availability of personal data. (Rianto, Zarzani, and Saragih 2024)

Although the regulation has been put in place, there are several significant challenges in its implementation on the ground:

1. **Low Awareness and Compliance:** Many e-service users in Indonesia are not fully aware of their rights and obligations in the context of data security. This often leads to data breaches that go unnoticed until it is too late. On the other hand, many business actors, especially SMEs, are not fully compliant with regulations due to a lack of understanding or resources to implement adequate data security systems.
2. **Cybersecurity Threats:** Cyberattacks such as phishing, malware, and ransomware attacks have become more sophisticated and frequent, increasing the risk of data breaches. Indonesia's preparedness for these threats varies, with many companies and organizations lacking adequate security infrastructure.
3. **Regulatory Ambiguity and Inadequacy:** Some aspects of data security and privacy in existing regulations are either too general or not specific enough, which can lead to varying interpretations and inconsistent application. In addition, regulations often lag behind the latest technological developments, such as blockchain security and AI, which are increasingly used in electronic transactions.

Failure to protect consumers' personal data can have significant legal consequences. In Indonesia, data breaches can result in civil or even criminal charges against the companies responsible. This includes potential lawsuits for damages suffered by individuals whose personal data was leaked or misused.

Legal uncertainty resulting from ambiguous or inadequate regulation also creates barriers to investment and innovation in the digital economy. Investors and entrepreneurs may be hesitant to enter markets or develop new services because of potential legal risks that may arise from data security weaknesses. (Ghany and Yandi 2024) Furthermore, data breaches can undermine public trust in the digital ecosystem, which is essential for the growth and acceptance of new technologies. When public trust in the security of electronic transactions is compromised, it can hinder wider adoption of technology and innovation in society.

Legal Dynamics of Electronic Contracts in the Digital Era: A Civil Law Review

Law Number 11 of 2008 concerning Electronic Information and Transactions (UU ITE) is the main legal basis that regulates the validity of electronic documents and electronic information in transactions carried out digitally. Amendments to the ITE Law through Law Number 19 of 2016 strengthen this legal framework by recognizing electronic documents as valid evidence in court, as stated in Article 5 of the ITE Law. This article provides legal legitimacy for the use of electronic documents in contractual transactions, which include electronic contracts. (2018 Novel)

In the context of civil law, electronic contracts remain subject to the basic principles stipulated in the Civil Code (KUHPerdata), especially Article 1320 which stipulates four conditions for a valid agreement, namely: an agreement between the parties, the capacity to make a contract, a certain object, and a lawful cause. Thus, even though the contract is made electronically, these basic principles must still be met to ensure the validity of the contract.

This opinion is in line with the view of Prof. Dr. Bambang Waluyo, who emphasized that "Electronic contracts, although virtual in nature, have the same legal validity as traditional contracts as long as they meet the requirements for a valid agreement according to civil law." In his view, the ITE Law only functions as a complementary tool that accommodates technological changes, while the foundation of traditional civil law remains relevant in assessing the validity of a contract.

In the context of contract law, there are several theories that can be used to analyze the validity of electronic contracts. The commonly applied theory of validity is the theory of consensualism, which states that a contract is considered valid when there is an agreement between the parties. In electronic contracts, such agreements can be realized through email exchanges, filling out electronic forms, or other technology-based mechanisms. This theory is supported by Article 1320 of the Civil Code which states that one of the requirements for a valid agreement is an agreement between the parties who are bound. (2018 Novel)

In practice, one way to show agreement in an electronic contract is by using an electronic signature. Article 11 of the ITE Law acknowledges that an electronic signature has the same legal force as a conventional signature as long as it meets the requirements stipulated in the laws and regulations. This provides validation for agreements made electronically and strengthens the principle of consensualism in electronic contracts. In addition to the theory of consensualism, the theory of the form of an obligation is also relevant in analyzing electronic contracts. According to this theory, an obligation formed through a contract does not require a specific physical form, but is determined by the agreement and will of the parties. Therefore, even though the

contract is made electronically, as long as there is a clear and voluntary agreement, the contract is considered valid under civil law.

Although the existing legal framework has recognized the validity of electronic contracts, there are a number of challenges in their implementation. One of the main challenges is identity verification and authentication in electronic contracts. In traditional transactions, the identities of the parties involved can be verified through physical documents such as identity cards. However, in electronic contracts, the identities of the parties are often difficult to verify accurately, so the risk of fraud or identity misuse is higher. (Muko 2024)

To address this issue, the ITE Law and Government Regulation Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions (PP 71/2019) regulate electronic signatures that are verified through electronic certificates. These electronic certificates are issued by electronic certification organizers recognized by the government and aim to ensure the authenticity of the identity of the parties making electronic contracts. However, not all sectors or business actors in Indonesia have adequate infrastructure to use certified electronic signatures, so the challenge of identity verification is still a crucial issue. (Rizal 2024)

Data security is also a significant challenge in electronic contracts. In the digital era, personal data and information included in electronic contracts are vulnerable to leakage or misuse. Therefore, protection of personal data is an important aspect that must be considered. Regulation of the Minister of Communication and Information Technology Number 20 of 2016 concerning Protection of Personal Data in Electronic Systems stipulates that electronic system organizers are required to maintain the confidentiality, integrity, and availability of personal data processed in electronic transactions. However, many cases of data leakage still occur in Indonesia, indicating that the implementation of this regulation is still not optimal. (Barkatullah 2019)

Another challenge is legal certainty in electronic contracts. Although the ITE Law has provided a strong legal basis, there is still uncertainty regarding the jurisdiction and applicable law, especially in cross-border transactions. For example, in cases where electronic contracts are made between parties located in different countries, issues often arise regarding which law applies and where disputes should be resolved. This shows that there is a need for harmonization of international law in terms of electronic transactions to avoid legal conflicts that can be detrimental to the parties. (Ghany and Yandi 2024)

The existence of electronic contracts not only presents challenges, but also brings positive implications for the Indonesian civil law system. One significant impact of the use of electronic contracts is increased efficiency in transactions. Electronic contracts allow transactions to be carried out in real-time without the need for physical presence, which can reduce operational costs and speed up business processes. In the context of international trade, electronic contracts allow business actors to transact with partners in other countries without having to meet in person, thus expanding market opportunities.

However, this increase in efficiency must be balanced with strengthening the legal protection aspect. As expressed by Andi Yulianto, SH, "Electronic contracts provide greater flexibility, but also require stricter legal protection, especially in terms of data security and dispute resolution." To that end, the government needs to strengthen the legal infrastructure that supports security and legal certainty in electronic transactions. Based on the analysis above, there are several policy recommendations that can be taken to improve and strengthen the dynamics of electronic contracts in Indonesia. First, strengthening regulations related to electronic signatures and electronic certification needs to be done so that more sectors can adopt this technology. The government can provide incentives or support to companies that want to invest in secure electronic signature infrastructure. (Barkatullah 2019)

Second, increasing public legal awareness regarding electronic contracts is very important. Many parties do not fully understand their rights and obligations in electronic contracts, making them vulnerable to fraud or data misuse. Educational campaigns and socialization about electronic contracts and the ITE Law need to be increased to reduce this risk. Third, harmonization of international law in terms of electronic transactions needs to be a priority. Given the large number of cross-border transactions that occur, the government needs to work with other countries to ensure legal certainty in international transactions. This includes jurisdiction, applicable law, and dispute resolution mechanisms in electronic contracts. (Sinaga, Mahat, and Simarmata 2023)

The legal dynamics of electronic contracts in the digital era bring challenges and opportunities for the Indonesian civil law system. Although existing regulations have provided a strong legal basis, there are still many challenges in practice, especially related to identity verification, data security, and legal certainty in

cross-border transactions. Therefore, a more comprehensive and adaptive legal approach to technological developments is needed, as well as increasing legal awareness in the community so that electronic contracts can be used more widely, safely, and efficiently. By strengthening regulations, increasing education, and encouraging harmonization of international law, electronic contracts can become a reliable legal instrument in supporting the growth of the digital economy in Indonesia.

CONCLUSION

This study reveals that electronic contracts have become an integral part of economic and social activities in the digital era, providing various advantages in terms of efficiency, flexibility, and wider transaction coverage. However, the validity of electronic contracts in Indonesia still faces legal challenges that require further attention, especially related to legal certainty, data security, and user privacy. The existing legal framework, especially through the Electronic Information and Transactions Law (UU ITE) and its amendments, as well as regulations related to personal data protection, has provided a strong basis for the recognition of electronic contracts. The principles of agreements in the Civil Code (KUHPerdata) remain relevant in determining the validity of contracts, even though contracts are made electronically. However, challenges such as low public legal awareness, identity verification, and adaptation of technologies such as blockchain and smart contracts still require more comprehensive regulatory solutions.

The implications of data security and privacy in electronic contracts are the main focus of legal protection for users in Indonesia. Existing regulations, although adequate, often lag behind technological developments and are applied unevenly across sectors. This creates potential risks for users and business actors in protecting their rights. Therefore, several policy recommendations that can be taken include: strengthening regulations related to electronic signatures and data security, increasing education and legal awareness in the community, and harmonizing international law to accommodate cross-border transactions. By addressing these challenges, electronic contracts can be used more safely, efficiently, and reliably to support the growth of the digital economy in Indonesia. The government, regulators, and business actors need to collaborate to create a legal ecosystem that is adaptive to technological changes and maintains a balance between innovation and legal protection for all parties involved in electronic transactions.

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