THE EFFECTIVENESS OF CYBER NOTARIES IN ENSURING LEGAL CERTAINTY OF ELECTRONIC TRANSACTIONS IN INDONESIA

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Abstract

The development of information technology has driven transformation in various aspects of life, including the field of notarial services. The concept of the Cyber Notary has emerged as a solution for efficiency and effectiveness of notarial services with digital technology. However, the implementation of the Cyber Notary in Indonesia still faces several challenges, particularly in ensuring legal certainty in electronic transactions. This study aims to analyze the effectiveness of the Cyber Notary in guaranteeing legal certainty in electronic transactions in Indonesia. The research method used is normative juridical, with statutory and conceptual approaches. The findings indicate that despite the great potential of Cyber Notary implementation, there are still legal voids and regulatory inconsistencies that hinder its application. Legal reform and regulatory harmonization are required, as well as improvements in infrastructure and notary competence in information technology, in order to realize legal certainty in electronic transactions through Cyber Notary.

Keywords: Cyber notary; Effectiveness; Transaction.

Abstrak

Perkembangan teknologi informasi telah mendorong transformasi dalam berbagai aspek kehidupan, termasuk dalam bidang kenotariatan. Konsep *Cyber Notary* muncul sebagai solusi untuk meningkatkan efisiensi dan efektivitas layanan notaris melalui pemanfaatan teknologi digital. Namun, implementasi *Cyber Notary* di Indonesia masih menghadapi berbagai tantangan, terutama terkait dengan kepastian hukum dalam transaksi elektronik. Penelitian ini bertujuan untuk menganalisis efektivitas *Cyber Notary* dalam menjamin kepastian hukum transaksi elektronik di Indonesia. Metode penelitian yang digunakan adalah yuridis normatif dengan pendekatan perundangundangan dan konseptual. Hasil penelitian menunjukkan bahwa meskipun terdapat potensi besar dalam penerapan *Cyber Notary*, masih terdapat kekosongan hukum dan ketidaksesuaian regulasi yang menghambat implementasinya. Diperlukan pembaruan dan harmonisasi peraturan perundang-undangan, serta peningkatan infrastruktur dan kompetensi notaris dalam teknologi informasi untuk mewujudkan kepastian hukum dalam transaksi elektronik melalui *Cyber Notary*.

Kata Kunci: Cyber notary; Efektivitas; Transaksi.

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INTRODUCTION

The development of digital technology has significantly transformed the way people interact and carry out various transactions in their daily lives. Advances in information and communication technology, particularly the internet, have driven a shift from face-to-face interactions to digital forms of interaction. This transformation has not only impacted the economic and social sectors but has also influenced the legal field, including notarial practices.(Lyta, Sihombing, and Kenotariatan, n.d.) In this context, the Cyber Notary has emerged as an innovative notarial service based on digital technology, aimed at providing convenience, efficiency, and flexibility in the execution of notarial duties, such as the drafting of deeds and the implementation of other legal transactions.(Novita et al. 2024)

The Cyber Notary serves as a response to the demands of the times, in which society increasingly relies on technology to access legal services. With the support of digital systems, notaries can carry out their duties online, including legalizing documents, drafting authentic deeds, and archiving electronic documents. Therefore, the Cyber Notary is regarded as a solution to enhance the efficiency and effectiveness of modern notarial practices.(Oktavianti 2024)

However, the implementation of Cyber Notary in Indonesia still faces numerous obstacles and has yet to function optimally. One of the main issues is the absence of explicit legal regulations governing the use of technology in notarial practices. Law Number 2 of 2014, which amends Law Number 30 of 2004 concerning the Notary Profession, has not yet fully accommodated the use of digital technology. The requirement that an authentic deed must be drawn up in the physical presence of a notary serves as a major impediment to the implementation of digital notary services. (Agustin and Anand 2021)

In addition to regulatory challenges, other inhibiting factors stem from limited technological infrastructure and the readiness of human resources, particularly notaries. (Lubis et al. 2022) Many notaries still lack sufficient digital competence, and the unequal distribution of information technology infrastructure across the Indonesian archipelago has led to disparities in access to Cyber Notary services.

Legal certainty is a crucial element of a legal system, ensuring that every legal act is protected and officially recognized by the state. In the context of electronic transactions, legal certainty becomes even more important due to their non-face-to-face and indirect nature. Therefore, it is expected that legal guarantees for electronic transactions can be provided through legitimate and authentic digital legalization and recording mechanisms.

However, this expectation has not yet been fully realized in Indonesia. The lack of clear regulation, the low level of digital literacy among notaries, and the absence of standardized operational procedures have cast doubt on the effectiveness of the Cyber Notary in ensuring legal certainty for electronic transactions. Concerns persist regarding the validity and authenticity of electronic documents created without the physical presence of the parties before a notary.(Rizkianti et al. 2025)

This study aims to evaluate the extent to which the Cyber Notary is effective in ensuring legal certainty for electronic transactions in Indonesia. In addition, the study seeks to identify the obstacles encountered in its implementation and to provide recommendations for the establishment of regulations that support the application of digital-based notarial services.

The approach used in this study is a normative juridical approach, by examining laws and regulations as well as legal literature related to Cyber Notary and electronic transactions. In addition, the study

includes an analysis of the implementation of Cyber Notary practices in other countries that have previously adopted similar systems.

It is expected that the results of this research will contribute both academically and practically to the efforts of modernizing notarial services in Indonesia. With the availability of comprehensive regulations, adequate infrastructure, and enhanced capacity of notaries in utilizing technology, the Cyber Notary can function optimally in ensuring legal certainty for electronic transactions and strengthening public trust in the national legal system.

Therefore, collaboration is required among the government, notary professional organizations, and the private sector to build a digital legal ecosystem that is inclusive and responsive to the times. The formulation of clear regulations, the development of standardized standard operating procedures (SOPs), and the implementation of training and digital certification programs for notaries are strategic steps that must be realized promptly. These efforts will serve as a crucial foundation for maximizing the role of the Cyber Notary as a guarantor of legal certainty in the digital era.

METHOD

This study employs a normative juridical method with statutory and conceptual approaches. The data used consists of primary, secondary, and tertiary legal materials obtained through literature review and analysis of legal documents related to the Cyber Notary and electronic transactions in Indonesia. The analysis is conducted qualitatively to evaluate the effectiveness of the Cyber Notary in ensuring legal certainty for electronic transactions.

RESULT AND DISCUSSION

1. The Concept of Cyber Notary and Its Implementation in Indonesia

Research results must be written clearly and concisely. Research results should summarize research findings rather than detailed data. It is recommended to provide a review of the differences between your results or findings and previous research. Discussion is the most important part of your article. Here you get the opportunity to explore your data. Usually, it starts with a summary of research findings and then discusses various related theories or references. The theory or reference used must be accompanied by a clear reference source.

In today's digital era, information technology plays a vital role in various aspects of life, including the legal sector. One of the innovations that has emerged alongside technological advancements is the concept of the Cyber Notary. This concept refers to the use of information technology to replace or complement notarial services that were previously conducted manually or through face-to-face interactions. A Cyber Notary involves the implementation of a digital notary system that enables the creation and authentication of deeds and other legal documents through electronic platforms. Although the Cyber Notary offers considerable potential, its implementation in Indonesia remains limited and faces numerous challenges, including regulatory issues, infrastructure limitations, and a lack of understanding among the public and legal practitioners.(Indriani, Ali, and Muhshi 2024)

The Cyber Notary represents an adaptation of traditional notarial practices into the digital domain. Fundamentally, a notary's role is to confer legality or validity to various types of legal documents, such as deeds of incorporation, agreements, and other legal instruments. In the context of a Cyber Notary, this process is conducted electronically using digital signatures and other security technologies to ensure that

the documents created hold legal force as those signed physically.(Lukita et al., n.d.)

Cyber Notary offers a number of advantages that cannot be achieved through traditional notarial systems. One of its primary benefits is efficiency in terms of time and cost. With this system, parties involved in the drafting of deeds or legal documents do not need to be physically present before a notary. They can carry out transactions through an online platform, complete the necessary forms, and affix their digital signatures. As a result, the process of creating legal documents becomes faster and more cost-effective, as there are no longer transportation expenses or time lost traveling to a notary's office. (Wijanarko, Mulyoto, and Supanto 2015)

Security is one of the most crucial aspects of the Cyber Notary system. In this context, encryption technology and electronic signatures are used to ensure that digitally signed documents cannot be altered after signing. This system also reduces the potential for document forgery, as the data contained in the documents is encrypted and accessible only to authorized parties.

However, despite the advantages offered by Cyber Notary, its implementation in Indonesia still faces numerous obstacles. As technology evolves rapidly, not all sectors of the legal field—including notarial services—are able to keep pace. This is due to several factors, including inadequate regulations, limited infrastructure, and a lack of understanding among relevant stakeholders regarding how this technology can be applied in legal practice.(Faulina, Barkatullah, and Gozali 2022)

In Indonesia, the use of technology in legal transactions began to be regulated through the Electronic Information and Transactions Law (UU ITE), which was first enacted in 2008. The UU ITE governs electronic transactions and electronic signatures, providing a legal foundation for the use of technology in the creation and authentication of electronic documents. However, although the UU ITE serves as a legal basis for electronic transactions, there is no specific regulation addressing the use of Cyber Notary in notarial practice. This regulatory gap presents a significant challenge to the implementation of Cyber Notary in Indonesia.

In addition to the UU ITE, Indonesia also has several regulations related to electronic signatures, such as Government Regulation No. 82 of 2012 concerning the implementation of electronic systems. This regulation provides guidelines on how electronic systems, including electronic signatures, can be legally accepted. (Buwana and Bagiastra 2023) Nevertheless, it still does not offer a sufficient legal basis for the implementation of Cyber Notary. For instance, there remains ambiguity about how electronic deeds created by digital notaries can be recognized in judicial processes or other legal transactions. This lack of clarity results in legal uncertainty that hinders the development of the Cyber Notary system in Indonesia.

Due to the existing legal vacuum, the implementation of Cyber Notary in Indonesia has been significantly hampered. In the absence of clear and detailed regulations, legal practitioners—including notaries—are hesitant to adopt this technology.(Mayana and Santika 2021) They are concerned that electronic deeds produced might not be legally recognized by the courts or other parties involved in legal transactions.(Dewi 2021) Therefore, it is crucial to revise and strengthen the regulatory framework governing Cyber Notary to ensure that this system is officially accepted and legally recognized in Indonesia.(Putri et al. 2024)

In addition to inadequate regulations, another challenge in implementing Cyber Notary in Indonesia is the limitation of technological infrastructure. (Sona 2022) Although Indonesia has experienced rapid development in the information technology sector, many areas—particularly in rural or remote regions—

still struggle to access the internet with sufficient speed and stability. Limited internet access hinders the public's ability to utilize Cyber Notary services. Without a stable internet connection, parties involved in the creation of electronic deeds will face difficulties in accessing the system, ultimately limiting the reach and benefits of this technology.(Bahri, Yahanan, and Trisaka 2019)

Furthermore, digital literacy poses another significant obstacle. Not all segments of Indonesian society—especially those in remote areas—have an adequate understanding of how to use digital technologies, including those related to electronic legal transactions. Therefore, to ensure that Cyber Notary services can be widely accessed, efforts must be made to improve digital literacy across the country. This includes providing training and education on how to use such technologies, as well as improving internet infrastructure in underdeveloped regions.(Jessica 2024)

As the party responsible for conferring legal validity to various types of documents, notaries play a crucial role in the implementation of Cyber Notary. However, like many other professions, the adoption of new technologies is often met with resistance from practitioners who are accustomed to traditional methods.(Bahri, Yahanan, and Trisaka 2019) Many notaries are hesitant to use digital systems, either due to a lack of understanding of the technology or concerns about the legal uncertainty surrounding its use.(Pembentukan et al. 2023)

Nonetheless, such resistance is not insurmountable. To ensure the successful implementation of Cyber Notary, it is essential for the government and notary professional associations to organize training and educational programs. (Santoso 2024) These programs can help notaries understand how the technology works and how it can be applied in their professional practices. (Liauw 2024) Additionally, notaries must be made aware of the regulations governing the use of electronic signatures and digital deeds so that they feel more confident in adopting the system.

One of the key issues in implementing Cyber Notary is the matter of security and public trust. Although electronic signature and encryption technologies are designed to safeguard the security and integrity of documents, the public remains skeptical about their legal validity and vulnerability to manipulation. (Putu Sekarwangi Saraswati 2023) The protection of personal data and legal transaction information is critical, and for that reason, the Cyber Notary system must be equipped with strong and accountable security protocols. (Pramudyo, Mayana, and Ramli 2021)

Moreover, transparency in the system is vital to building public trust. People must be assured that transactions carried out through Cyber Notary platforms are not only secure but also legally valid and recognized. Therefore, the government and relevant institutions involved in the development of Cyber Notary must collaborate to create a system that is transparent, secure, and accessible.

Despite the various challenges faced by Cyber Notary implementation in Indonesia, its prospects remain highly promising, The prospects for Cyber Notary in Indonesia are bright. This technology has the potential to accelerate the digitalization of legal services, provide easier and faster access for the public to conduct legal transactions, and reduce costs associated with traditional notarial services. With clearer regulatory development, improved infrastructure, and more intensive training for notaries and the public, Cyber Notary could become a viable solution to meet the needs of notarial services in this digital era.

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The Indonesian government must strengthen the existing legal framework, update regulations related to the use of technology in notarial practice, and encourage the enhancement of digital infrastructure across all regions. Additionally, efforts to improve digital literacy among both the public and notaries should also be prioritized. Through these measures, Cyber Notary can develop effectively and make a positive contribution to Indonesia's legal system, in line with the rapid advancement of technology.

2. Legal Certainty in Electronic Transactions through Cyber Notary

In the ever-evolving legal landscape, one increasingly relevant phenomenon is electronic transactions. With technological advancements, a growing number of economic and social activities are conducted through digital platforms. One sector affected by this technological development is the notarial sector. The traditional notary system, which has long been known as the system providing legal validity to various transactions or agreements, can now be replaced or complemented by a more modern system known as Cyber Notary. In this context, the implementation of Cyber Notary in Indonesia presents both challenges and opportunities to provide legal certainty in electronic transactions.(Bachtiar, Majid, and Hafidz 2023)

Cyber Notary is a concept that integrates information technology into notarial services, enabling the creation and authentication of legal documents, such as deeds, electronically. By using digital signatures, encryption, and other security technologies, Cyber Notary functions to ensure that the resulting documents have valid legal force equivalent to documents authenticated conventionally by a notary physically present.

As part of the legal system, notaries have a crucial duty to confer authenticity on various legal documents created by parties involved in agreements or transactions. In this regard, Cyber Notary replaces the traditional role of notaries who perform document authentication manually by utilizing technology to carry out verification and authentication electronically. This allows parties involved in a transaction to conduct their legal activities without spatial and temporal constraints, and with greater efficiency. (Suwantara et al. 2021)

However, the implementation of this system does not automatically guarantee that every electronically conducted transaction can be deemed valid or accountable. Legal certainty in electronic transactions through Cyber Notary must be clearly regulated by appropriate legislation. (Nisa' 2020) One of the main challenges is ensuring that digitally signed documents possess the same legal force as physical documents signed manually. Without clear legal certainty, the use of Cyber Notary in electronic transactions could be hindered, and may even cause legal uncertainty detrimental to the parties involved. Indonesia has a foundational regulation concerning electronic transactions contained in the Electronic Information and Transactions Law (UU ITE), first enacted in 2008. This law governs electronic transactions, including provisions regarding electronic signatures, which constitute an essential component of Cyber Notary. UU ITE provides the legal basis that transactions conducted electronically have valid legal force if they meet certain requirements. (Rossalina et al. 2016)

However, despite UU ITE providing a legal foundation for electronic transactions, more specific regulations concerning Cyber Notary, especially regarding the authentication of electronic deeds, have yet to be clearly detailed. Legal clarity concerning the validity of deeds produced through Cyber Notary



systems is necessary to prevent doubts about their use. For example, in practice, does an electronically signed deed hold the same weight as a deed physically signed before a duly authorized notary? If a legal dispute arises involving an electronic deed, can that deed be accepted as valid evidence in court? Such questions require explicit answers within the existing regulatory framework.

In addition to UU ITE, the Indonesian government has issued several regulations related to electronic signatures, such as Government Regulation No. 82 of 2012 concerning the Implementation of Electronic Systems and Transactions. This regulation further governs the operation of electronic systems and provides guidance on how electronic signatures can be recognized in electronic transactions. However, although this regulation offers a legal basis for electronic transactions, more specific regulations clarifying the role of notaries in the context of Cyber Notary and the authentication of electronic documents remain critically needed to ensure legal certainty in Cyber Notary's application.

Legal certainty is a fundamental element of any legal system, serving to provide security and trust for parties involved in transactions. In electronic transactions, legal certainty becomes especially important considering the nature of these transactions, which are conducted digitally and do not always involve physical meetings between the parties involved. Therefore, if transactions are conducted via electronic platforms and documents generated are signed digitally, there must be clear recognition and acceptance of these documents within the applicable legal system.(Lubis et al. 2025)

Legal certainty in electronic transactions through Cyber Notary can be achieved if regulations governing this system are well-formulated, providing clear guidelines regarding the rights and obligations of the parties involved in electronic transactions. In this context, deeds generated through Cyber Notary must have valid legal force and be recognized by the judicial system, allowing them to be used as valid evidence in court in the event of disputes.

The validity and security of electronic documents produced by Cyber Notary also heavily depend on the existence of systems that can guarantee the integrity of these documents. In this regard, technologies supporting Cyber Notary, such as digital signatures, encryption, and electronic certificates, must possess a high level of security to prevent forgery or alteration without the knowledge of the involved parties. The security of this system will also ensure that no data manipulation occurs that could harm the parties involved in the transactions.

Although the concept of Cyber Notary offers various potentials in providing legal certainty in electronic transactions, its implementation in Indonesia still faces several obstacles. One of the main obstacles is the lack of clear regulations specifically governing this system. As previously explained, although the Electronic Information and Transactions Law (UU ITE) and regulations related to electronic signatures already exist, regulations governing Cyber Notary in the context of notarial services are still very limited. This creates legal uncertainty that can hinder the adoption of this system by legal practitioners, including notaries.

In addition, uneven technological infrastructure across Indonesia is also a major challenge in implementing Cyber Notary. Although several major cities have adequate technological infrastructure, many regions still struggle with internet access that is fast and stable. This certainly hinders the effective implementation of Cyber Notary, especially in areas with inadequate infrastructure. (Nowira, Alam, and Wicaksono 2023)

Digital literacy issues also become a significant challenge in applying Cyber Notary. Not all

communities, especially those in remote areas, have sufficient understanding of using digital technology for legal transactions. People who are not familiar with digital systems may feel doubtful and lack confidence in the validity of electronically generated documents, thus preferring to use traditional notarial systems.

To ensure legal certainty in electronic transactions through Cyber Notary, several steps need to be taken. First, there needs to be an update and development of clearer regulations regarding the use of Cyber Notary. These regulations should include provisions about the authentication of electronic deeds, mechanisms for verifying digital signatures, and how electronic deeds can be accepted in judicial processes or other legal transactions. Legal clarity will provide security and confidence for the public in using Cyber Notary services. (Diurnal et al. 2023)

Second, the government and related institutions need to strengthen technological infrastructure, especially in areas with limited internet access. Improving this infrastructure will ensure that all Indonesians can easily and securely access the Cyber Notary system. In addition, improving digital literacy among the public is essential to ensure they understand how to use the system and trust its validity. (Yogi Yustyawan, Hamidah, and Brawijaya 2018)

Third, notaries, as the parties responsible for authenticating documents, must be given adequate training regarding the use of technology in notarial services, including the use of digital signatures and Cyber Notary systems. This training will ensure that notaries can adopt the technology confidently and understand their role in maintaining the integrity and validity of the documents produced.

CONCLUSION

Cyber Notary has great potential to improve the efficiency and effectiveness of notary services as well as to ensure legal certainty in electronic transactions in Indonesia. However, its implementation still faces various challenges, especially related to legal gaps and regulatory misalignments It is necessary to update and harmonize the laws and regulations, improve technological infrastructure, and enhance the competence of notaries in information technology to realize legal certainty in electronic transactions through Cyber Notary.

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