

The Effectiveness of Cyber Notary Development Using Barcodes on Notarial Deeds in Indonesia

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Abstract. *One of the problems that often occurs is the slow process of making notarial deeds which can hinder business and economic processes. This is caused by the large number of documents that must be signed and verified by the notary, as well as the signing process which is still done manually. Moreover, the use of digital information technology is increasingly penetrating various sectors, including in the process of making notarial deeds. However, the implementation of cyber notary in Indonesia still faces various challenges, especially related to effectiveness and security. Therefore, this study aims to develop cyber notary using barcodes on notarial deeds that can increase efficiency and security in making notarial deeds in Indonesia. The research method used is normative legal research with literature studies from secondary data where the data is obtained indirectly including primary legal materials. The results of the study show that the development of barcodes on notarial deeds can help increase the efficiency of the notarial deed making process by reducing the time and costs required. In addition, this model can also increase the security of data and information related to notarial deeds, thereby reducing the risk of manipulation or information leakage. The development of cyber notary, especially the use of barcodes on efficient and secure notarial deeds, is expected to make the notarial deed process in Indonesia more modern, transparent, and reliable. This research is expected to provide a positive contribution to the development of notarial technology in Indonesia and strengthen public trust in the legal process carried out in this digital era.*

Keywords: *Barcode; Cyber; Deed; Efficiency; Security.*

1. INTRODUCTION

The rapid development and advancement of information technology has caused changes in human life activities in various fields that have directly influenced the birth of new legal acts. Providing opportunities and challenges to Notaries in the era of globalization that requires Notaries not only to be able to work manually but also to utilize technology-based information. The concept of cyber notary for notaries in Indonesia is not something foreign. This concept was born because of the existence of new technologies that can affect the work of notaries, especially in terms of time efficiency. One of the technologies developing in cyber notary is the barcode system in securing authentic deeds. Making notarial deeds is an important process in the Indonesian legal system. Notarial deeds are valid evidence of legal events made by a notary and recognized by the parties involved in the event. However, the process of making notarial deeds is still constrained by various problems, such as lack of efficiency and security.¹

One of the problems that often occurs is the slow process of making notarial deeds which can hinder business and economic processes. This is caused by the large number of documents that must be signed and verified by a notary, as well as the signing process which is still done manually. In addition, sometimes there are also errors in writing notarial deeds which can cause legal problems in the future.²In its implementation, it is important for notaries to accommodate the interests of clients (interests of service users) which are individual and collective. The position of clients is dependent and in a confidential condition in the context of providing services. So that notaries are obliged to provide good service. Notaries in carrying out their duties and positions have a principle of caution in the process of making authentic deeds, because there are often legal problems with authentic deeds made by Notaries, so that they find parties who commit crimes such as providing fake letters and false information on the deed. Indonesia has implemented a barcode system in various forms of legal products, one of which is a legal entity administration information system that serves the public with electronic validation. Seeing the information system that has been used by the Ministry of Law and Human Rights, the Directorate General of Legal Administration in issuing decrees and other policies is officially inserted with a barcode as a form of authenticity of documents that have been integrated so as to provide information on copies of documents so that there are no differences in order to avoid things that can harm users of Notary services.

Law of the Republic of Indonesia Number 2 of 2014 states, "A notary is a public official who is authorized to make authentic deeds and has other authorities."³Departing from the article, it provides a view of caution when carrying out his duties as a public official in order to avoid violating the code of ethics as a Notary. The many cases of forgery of deeds involving the position of notary, have resulted in notaries being able to carry out their responsibilities regarding the authenticity of the authentic deeds they have made. So that with the emergence of several cases related to forgery of deeds, security is provided by using technology to avoid dynamic crimes. The use of this technology is by

¹Wijaya, T. (2017). Legal Protection of Electronic Notary Deeds in Indonesia. *Journal of Business Law*, Vol. 12, No. 2. pp. 213-229

²Siregar, AM (2020). The Role of Notaries in the Development of Cyber Notary Models in Indonesia. *Judicial Journal*, Vol. 15, No. 1, pp. 85-98

³Law Number 2 of 2014 concerning Amendments to Law Number 30 of 2004 concerning the Position of Notary

using barcodes, where this barcode can distinguish and provide information regarding original or non-original deeds.⁴

In the era of increasingly rapid development of artificial intelligence technology, the development of artificial intelligence technology, Artificial Intelligence (AI), has led the world into a new era full of extraordinary progress and unlimited innovation potential. Artificial intelligence has gone beyond the boundaries of conventional technology and changed the way we work, interact, and access information. However, behind the light of this progress, lies the shadow of legal complexity that colors the journey of the evolution of Artificial Intelligence (AI). Along with the rapid development of Artificial Intelligence (AI), legal challenges arise that require deep reflection and adjustment of existing regulatory frameworks. These challenges are not only technical, but also include dimensions that reach deep into ethics, privacy, security, and social impact. It is important for Indonesia to develop a cyber notary model that can increase the effectiveness and security of notarial deeds. By using appropriate laws and regulations, this model is expected to overcome existing problems and provide many benefits, such as accelerating the process of making notarial deeds, reducing the risk of errors, and increasing document security.⁵ So that information technology is expected to support Notaries who must be demanded quickly because of changes. The demand is in line with the post-enactment of laws and regulations that can be used as guidelines in developing a cyber notary model. is Law No. 11 of 2008 as amended several times, most recently by Law No. 1 of 2024 concerning Protection of Information and Electronic Transactions (ITE Law) and Regulation of the Minister of Law and Human Rights Number 2 of 2015 on Electronic Services within the Ministry of Law and Human Rights. The ITE Law stipulates that electronic documents have the same legal force as physical documents, while the Regulation of the Minister of Law and Human Rights Number 2 of 2015 regulates the implementation of electronic services within the Ministry of Law and Human Rights, including in the process of making notarial deeds.⁶ By developing a cyber notary model that complies with existing laws and regulations, it is expected to facilitate the process of making notarial deeds, increase efficiency and security, and provide easy access for people who need notary services. In addition, by using this model, documents used in the process of making notarial deeds can be stored electronically, thereby reducing the risk of loss or damage to physical documents.⁷

Cyber notary has a concept to be able to provide law with the intention of facing the actions of the parties or the parties appearing before a notary without having to meet physically in a certain place, but the parties are in a different place from the notary's domicile or area of office, the parties can be in different places too.⁸ Thus, the development of a cyber notary model with the use of barcodes on Notarial Deeds in Indonesia in an appropriate and measurable manner is expected to bring many benefits

⁴Kusdianto, A. (2018). Review of the Development of Cyber Notary Models in Indonesia. *Yustisia Journal*, Vol. 12, No. 2, 237-252

⁵Pratama, RA (2019). Efficiency and Security in Making Notarial Deeds with Electronic Systems. *Journal of Law and Development*, Vol. 16, No. 1. pp. 12-30

⁶Regulation of the Minister of Law and Human Rights Number 1 of 2017 concerning Procedures for Making Electronic Notarial Deeds

⁷Fitriana, Irsyad. (2016). Analysis of the Application of Electronic Systems in the Making of Notarial Deeds. *Journal of Law and Justice*, Vol. 10, No. 2. pp. 171-192

⁸RA Emma Nurita. (2012). *Cyber Notary Initial Understanding in the Concept of Thinking*. Bandung: PT Refika Aditama. p. 2

to the Indonesian legal and economic system, as well as provide security and legal certainty for the community in the process of making notarial deeds.

2. RESEARCH METHODS

The problems raised in this study use normative legal research methods with literature studies, which use secondary data types where the data is obtained indirectly including primary legal materials. The data obtained is then collected through documentary study data collection techniques or literature studies by collecting data based on legal materials that have been used in this study, and analyzed using qualitative data analysis techniques. As the purpose of the study is one of them as a prediction, in order to provide a description of the findings that are then obtained in this study and also to find conclusions that are correct and can be scientifically accounted for.⁹

3. RESULTS AND DISCUSSION

3.1. Cyber Notary Development Using Barcodes Can Increase Efficiency in the Notarial Deed Making Process in Indonesia

Friedman places legal culture as a source of law, the values contained in the ideas, opinions, and behavior of society will actually form legal norms, and those norms will determine changes in society, including compliance and the formation of law. Legal subjects, namely humans who are gifted with reason, can determine which values are good and bad, so related to the existence of legal norms in their community, humans will react to patterns of compliance with obligations, orders and legal institutions. These patterns will determine what actions should be taken; accepting or rejecting the legal system. This means that legal culture is a factor that supports change in society. In the flow of technological change for example, if based on Friedman's opinion, then the rapid development of technology does not necessarily require the government to form laws, instead observations need to be made whether the development of technology has influenced and changed the form and social needs of society.¹⁰

It is not appropriate for a law to be applied to a society when the majority of the community rejects it. If this development turns out to really change the needs of society, then a change/formation of the law is needed. A concrete example in the legal system in Indonesia is the enactment of the Electronic Information and Transactions Law. The making of a notary deed is one of the important processes in order to carry out legal transactions in Indonesia. However, this process often experiences obstacles such as long time, high costs, and difficulty of access for people living in remote areas. Therefore, innovation is needed in the notary deed making system that can increase efficiency and reduce existing obstacles. One solution is to develop a cyber notary model.¹¹

⁹Tan, D. (2021). Legal Research Methods: Examining and Reviewing Methodology in Conducting Legal Research. NUSANTARA: Journal *Social science*, Vol. 8, No. 8. p. 2463-2478

¹⁰Izzy, Al. (2022). Lawrence M. Friedman's Modern Legal System: Legal Culture and Social Change in Society from Industrial to Digital. *Sapientia et Virtus Journal*, Vol. 7. No. 2

¹¹Putri, A. (2018). The Influence of the Implementation of the Cyber Notary Model in Increasing the Efficiency of the Notary Deed Making Process in Indonesia. *Journal of Law and Human Rights*, Vol. 6, No. 1. pp. 109-118

QR Code installed on an authentic deed made by a Notary, With the development of cyber notary is a digital notarial deed making system that uses information and communication technology. This system allows parties who make transactions to be able to access and carry out the notarial deed making process online, without having to be present in person at the notary's office. That way, the notarial deed making process can be done more quickly, efficiently, and transparently.¹²The information contained in the QR Code is information that is specifically entered by the Notary for service users. The use of QR Code on the deed can be scanned by inserting a password that is only given to the interested party in order to match the suitability of the data of the parties and the contents of the deed.

The implementation of cyber notary in Indonesia is supported by several laws and regulations, such as Law No. 2 of 2014 concerning Amendments to Law No. 30 of 2004 concerning the Position of Notary, Regulation of the Minister of Law and Human Rights of the Republic of Indonesia Number 12 of 2018 concerning the Implementation of Electronic Systems in the Position of Notary, and Circular Letter of the Ministry of Law and Human Rights Number M.HH-03.OT.03.01 of 2018 concerning the Implementation of Electronic Systems in the Position of Notary.¹³With the existence of supporting laws and regulations, the development of cyber notary can be implemented widely throughout Indonesia. This will provide many benefits, including:

- a. Improve the efficiency of the notarial deed making process. With an online system, parties making transactions no longer need to spend time and money to come to the notary's office. The entire process can be done from anywhere and anytime via internet access.
- b. Minimize human error. With a digitally integrated system, the use of technology can reduce the risk of errors that can occur in manual processes.
- c. Increase transparency. This system allows parties making transactions to be able to see and follow the entire process of making notarial deeds online. This can increase trust and transparency in the process of making notarial deeds.
- d. Facilitating access for the community, especially those living in remote areas. With the online system, the community no longer needs to face access difficulties and high costs to make notarial deeds.
- e. Increasing the use of information and communication technology in the legal field. With the implementation of the cyber notary model, the use of information and communication technology in the process of making notarial deeds can increase and be in accordance with the development of the times.
- f. However, the development of the cyber notary model also faces several challenges, such as data security and public trust in the use of technology in legal processes. Therefore, a strict system and procedure are needed in data management in order to maintain the security and confidentiality of the data of the parties conducting the transaction.

Sudikno expressed his opinion that an act, even though it is not regulated by law but is contrary to public order and morality, is prohibited. While acts that are not regulated by law but are good for justice, benefit, and legal certainty are permitted. Because legal

¹²Rahmawati, M. (2017). Development of Cyber Notary Model as an Alternative in the Efficiency of Notarial Deed Making Process. *Journal of Business Law*, Vol. 3, No. 1. pp. 87-95

¹³Fajri, NR (2019). Implementation of Cyber Notary Model in Increasing Transparency of Notarial Deed Making Process. *Journal of Law and Justice*, Vol. 8, No. 2. pp. 163-173

gaps must be filled and must be completed.¹⁴ The use of barcodes is the use of technology with the aim of proving fake deeds that do not violate public order and morality and do not have legal implications on the weight of authentic deeds.

The ease of access rights granted to service users can provide security that can only be accessed by stakeholders in this case service users. This barcode system has been implemented by several Government Agencies, one of which is the Ministry of Law and Human Rights on the integrated Decree sheet. So that the barcode has been trusted as a tool that can be used by Notaries to find out and verify the authenticity of a document, especially an authentic deed. By implementing cyber notary, especially utilizing the use of barcodes, it can avoid things that can be detrimental in the future and provide a sense of security to service users (clients). The legal consequences that arise in the use of barcodes in notarial deeds in order to improve the security aspect are as long as the deed is not changing, replacing, and not adding words that can give rise to other interpretations with the substance of the deed head, the contents of the deed, and the closing of the deed, meaning it is valid. Because the UUJN does not regulate the prohibition on the use of barcodes in notarial deeds that are used with the aim of securing the deed from forgery.

3.2. Security Required in Developing Cyber Notary Models to Prevent Manipulation and Falsification of Data in Notarial Deeds in Indonesia

The security required in the development of a cyber notary model to prevent manipulation and falsification of data on notarial deeds in Indonesia is very important. This is because a notarial deed is authentic evidence that is valid for a transaction or agreement made between interested parties. With the increasingly developing information technology, a cyber notary model is needed that can ensure the security and validity of data on notarial deeds.¹⁵

In Indonesia, the use of the cyber notary system has been regulated in Law No. 19 of 2016 concerning Electronic Information and Transactions (UU ITE). Article 15 paragraph (1) of the ITE Law states that every electronic information and document has valid and binding legal force. This shows that notarial deeds made through the cyber notary system also have the same legal force as notarial deeds made conventionally.¹⁶

In addition, there are other laws and regulations governing the security and validity of data in notarial deeds, namely the Regulation of the Minister of Law and Human Rights of the Republic of Indonesia Number 12 of 2017 concerning Procedures for Electronic Notarial Deed Registration. This regulation regulates the process of electronic notarial deed registration and also regulates the security and validity of data contained in the notarial deed.¹⁷

¹⁴Sudikno Mertokusumo. (1999). Indonesian Civil Procedure Law. Jakarta: Liberty. p. 84

¹⁵Ahmadi Miru, Hendri, and Hardian. (2015). Design of Web-Based Cyber Notary Security System, Journal of Business Information Systems, Vol. 5, No. 1

¹⁶Law Number 19 of 2016 concerning Electronic Information and Transactions

¹⁷Regulation of the Minister of Law and Human Rights of the Republic of Indonesia Number 12 of 2017 concerning Procedures for Electronic Notary Deed Registration

The security required in developing a cyber notary model can be seen from several aspects, including:¹⁸

a. System Security

The cyber notary system must have a secure and reliable system. This aims to prevent manipulation or falsification of data on notary deeds. The system must be protected from hacker attacks or viruses that can threaten data security.

b. Data Protection

Data contained in notarial deeds must be strictly protected. Only authorized parties can access and manage the data. Data protection must also be carried out periodically to prevent data leakage.

c. Verification of Identity Authenticity

In a cyber notary system, there must be a mechanism to verify the authenticity of the identity of the parties involved in a transaction or agreement. This is important to ensure that the data entered in the notary deed comes from a legitimate party.

d. Use of Digital Signatures

A digital signature is an electronic signature that has the same legal force as a conventional signature. With the use of a digital signature, it can be ensured that the data on the notarial deed cannot be changed or falsified.

e. Data Backup

The cyber notary system must be equipped with a regular data backup feature. This is important to anticipate data loss or system damage that can cause data to become inaccessible.

f. Supervision and Audit

Periodic monitoring and auditing must be carried out to ensure the security and validity of data on notarial deeds. This can be done by the authorities to check whether the cyber notary system is run in accordance with the established rules.

g. Security Certification

Cyber notary systems must obtain security certification from authorized institutions. With this certification, it can be ensured that the system has met the established security standards.

The installation of a barcode on an authentic deed made by a Notary does not reduce the elements contained in the provisions of Article 1868 of the Civil Code and Article 38 of the UUJN-P which regulate the formal form of an authentic deed made by a Notary. The Notarial Deed to which the barcode will be attached must also meet all the requirements of the laws and regulations, if it does not meet Article 1868 of the Civil Code and Article 38 of the UUJN-P then it is considered a deed under hand. The prohibition on not being allowed to install a barcode is not found in Article 1868 of the Civil Code or Article 38 of the UUJN-P. If the law is incomplete and unclear, it must be sought and found¹⁹The installation of a barcode on a deed in the form of a

¹⁸Rahmawati, M. (2017). Development of Cyber Notary Model as an Alternative in the Efficiency of Notarial Deed Making Process. *Journal of Business Law*, Vol. 3, No. 1. pp. 87-95

¹⁹ Subekti and Tjitrosudibio. (2009). *Civil Code [Burgerlijk Wetboek]*. Serang: Pradnya Paramita. p. 475

box symbol on each page of an authentic deed has changed the external form, but has not changed the content because the requirements for an authentic deed regulated in Article 1868 of the Civil Code and Article 38 of the UUJN-P have been met. The basic action of a Notary to install a barcode in an authentic deed is based on customary law, just like a copy of a deed which is always bound and each volume must have a state symbol.

3.3. Regulations and Policies Needed to Support the Implementation of the Cyber Notary Model in the Making of Notarial Deeds in Indonesia

In the digital era like today, the development of information technology affects various aspects of life including the legal field. One of them is in the process of making notarial deeds which are one of the important documents in the legal world. To meet the need for a more efficient and effective notarial deed making process, regulations and policies are needed that can support the implementation of the cyber notary model. With this model, the process of making notarial deeds can be done electronically, so that it can speed up the process and reduce the costs required. The following are the regulations and policies needed to support the implementation of the Cyber notary model in making notarial deeds in Indonesia.

- a. Law No. 2 of 2014 concerning Amendments to Law No. 30 of 2004 concerning the Position of Notary.²⁰

This law regulates the duties and functions of notaries and the process of making notarial deeds. In this case, this regulation needs to be updated and adjusted to the development of information technology, so that it can accommodate the Cyber notary model. Some things that need to be regulated in this law include the process of making notarial deeds electronically, data security and integrity, and the use of electronic signatures as a substitute for physical notary signatures.

- b. Regulation of the Minister of Law and Human Rights Number 9 of 2016 concerning Electronic-Based Public Services.²¹

This regulation regulates the implementation of electronic-based public services which include in this case notary services. With this regulation, notaries are required to provide electronic notarial deed making services, so that it can make it easier for the public to access these services. This regulation also regulates the verification and validation process of electronic signatures used in making notarial deeds.

- c. Financial Services Authority Regulation Number 77/POJK.01/2016 concerning Consumer Protection in the Financial Services Sector.²²

This regulation regulates consumer protection in using financial services including notary services. In this case, this regulation needs to be adjusted to the Cyber

²⁰Law Number 2 of 2014 concerning Amendments to Law Number 30 of 2004 concerning the Position of Notary

²¹Regulation of the Minister of Law and Human Rights Number 9 of 2016 concerning Electronic-Based Public Services

²²Financial Services Authority Regulation Number 77/POJK.01/2016 concerning Consumer Protection in the Financial Services Sector

notary model, so that it can provide appropriate protection for consumers who use the service. Several things that need to be regulated in this regulation are the process of making notary deeds electronically, data security and privacy, and the process of resolving disputes arising from the use of Cyber notary services.

d. Bank Indonesia Regulation Number 20/11/PBI/2018 concerning Payment Systems.²³

This regulation regulates the payment system that includes the use of electronic signatures as a valid form of payment. In this case, this regulation needs to be updated and adjusted to the development of the Cyber notary model, so that it can be recognized as a valid form of payment in the process of making notarial deeds electronically.

e. Regulation of the Information Network and Electronic Transaction Authority (Government Regulation Number 82 of 2012).²⁴

This regulation regulates the security and protection of data in electronic transactions. In this case, this regulation needs to be updated and adjusted to the cyber notary model, so that it can provide better security and protection for data used in the process of making notarial deeds electronically. Authentic deeds that use a cyber notary basis made by a notary do not meet the requirements. This is because the notary is not authorized to create the concept which results in the notary being considered incompetent which makes the deed defective. The deed is only considered an authentic deed which in fact, although it has limited power as a private deed in the form of writing by the parties that have been signed. Cyber notaries in practice are vulnerable at the time of ratification of the deed, where it creates loopholes for the parties to commit fraud and not act in good faith.

The presence of technological advances is expected to be able to reduce the crime of forgery of letters made by notaries as authentic deeds, so that it is hoped that this will not happen again. community life related to fraud. In addition, it is also expected that no party will be harmed by what is stated in a deed that is carried out correctly. The advancement of barcode technology is utilized by the Indonesian Notary Community in terms of storing notarial deeds that are carried out digitally which functions to facilitate checking the authenticity of a deed. The installation of a barcode is a use of technology whose purpose is to prove a fake deed, so that when viewed from its purpose it does not violate public order and morality and does not have legal implications for the weight of an authentic deed made by a Notary, because it does not violate the provisions existing from the use of the technology. then it can be ascertained that the predicate of an authentic deed as contained in Article 1868 BW and the perfect evidentiary force as contained in Article 1870 BW can be fulfilled, even if it does not use a barcode. So that a Notary deed that has perfect evidentiary force if its legal certainty has been fulfilled.

²³Bank Indonesia Regulation Number 20/11/PBI/2018 concerning Payment Systems

²⁴Regulation of the Electronic Information and Transaction Network Authority (Government Regulation Number 82 of 2012)

4. CONCLUSION

The era of the rapid development of Artificial Intelligence (AI) technology has led the world into a new era full of extraordinary progress and unlimited innovation potential. Artificial intelligence has gone beyond the boundaries of conventional technology and changed the way we work, interact, and access information. The development of cyber notary using Barcode is a proposed solution to improve efficiency and security in making notarial deeds in Indonesia. This model involves the use of information and communication technology to facilitate the process of making notarial deeds and increase the security of the documents created. With this model, it is expected to provide access rights that make it easier for third parties to prove the authenticity of the deed with the deed minutes. Facilitate verification of deeds quickly, accurately and effectively. In addition, it can also help implement the principle of caution and the validity of notarial documents, so that it will increase public trust in the process of making notarial deeds in Indonesia. Barcode technology used as security for notarial deeds, although not yet regulated in the UUJN, is not contradictory. The existence of technology will make it easier and safer because there is a digital deed storage process. Of course, it can reduce the occurrence of criminal acts of forgery of deeds, reduce the risk of loss, damage, and provide more legal certainty to the parties concerned. A good policy is a policy that has the greatest benefit for many people. So that the position of a notary deed regarding the use of barcodes in order to improve the security aspect is as long as the notary deed that uses a barcode does not change, replace, and does not add words that can cause other interpretations with the substance of the head of the deed, the contents of the deed, and the closing of the deed, it means it is valid. UUJN does not regulate the prohibition on the use of barcodes in notary deeds used to secure the deed from forgery.

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