

The Validity of Using Electronic Signatures in the Execution of Notarial Deeds from the Perspective of Legal Certainty

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Abstract

The rapid advancement of digital technology has driven the modernization of legal practices, including the development of the *cyber notary* concept. However, the implementation of electronic signatures in the execution of authentic notarial deeds creates regulatory tension between general electronic transaction laws and specific notary position legislation. This study aims to analyze the legal validity of electronic signatures in notarial deeds and to evaluate the extent of legal certainty provided to the contracting parties. Utilizing a normative legal research method with statutory and conceptual approaches, this study examines the friction between the legal recognition of electronic signatures under the Law on Information and Electronic Transactions (UU ITE) and the strict requirements for physical presence and wet signatures mandated by the Law on Notary Positions (UU JN). The findings reveal that while electronic signatures possess valid legal force in general commercial transactions, their application in authentic notarial deeds without specific statutory amendments under UU JN risks violating formal deed execution requirements. As a result, such deeds may be subject to legal defect, degrading their evidentiary value from an authentic deed to a private writing (*underhand deed*). The study concludes that achieving comprehensive legal certainty requires legislative harmonization and explicit amendments to notary laws to establish technical standards and legal protections for electronic notarization.

Keywords: Electronic Signature, Cyber Notary, Notarial Deed, Legal Certainty, Authentic Deed

A. Introduction

The global paradigm shift toward a digital economy has fundamentally reshaped conventional legal systems, compelling public and private institutions to modernize their legal frameworks. In the era of Industry 4.0 and digital governance, the demand for electronic transactions, remote contract execution, and paperless administrative processes has escalated significantly. Central to this digital transformation is the concept of electronic signatures, which serves as a technological substitute for traditional physical signatures to guarantee authenticity, integrity, and non-repudiation in digital communications. While the commercial sector has swiftly adopted digital signatures to expedite cross-border and domestic transactions, the integration of such technology into formal legal instruments specifically authentic deeds executed by public officials presents complex legal, conceptual, and technical challenges. Afifah, P., Arief, A., & Arsy, M. (2025).

In civil law jurisdictions, including Indonesia, the notary occupies a pivotal role as an independent public official (*functionaris publicus*) vested with state authority to draft authentic deeds (*akta otentik*). Under Article 1868 of the Indonesian Civil Code (*Burgerlijk Wetboek*), an authentic deed is defined as a deed executed in a form prescribed by law, drawn up by or before a public official empowered to do so at the place of execution. Authentic deeds possess the highest degree of evidentiary strength (*volledig bewijs* or perfect proof) in civil litigation, binding judges to accept the contents, date, and signatures as conclusive truth unless proven otherwise through strict legal proceedings. To maintain this paramount evidentiary value, Law No. 30 of 2004 as amended by Law No. 2 of 2014 on the Position of Notaries (*UU JN*) strictly mandates formal procedural requirements. These include physical presence (*in person*) of the appearing parties (*penghadap*), the oral reading of the deed by the notary, and the immediate execution of physical wet signatures (*tanda tangan basah*) on the paper deed by all parties, witnesses, and the notary. Ajisaputri, I. L., & Antawati, R. B. (2025).

The introduction of Law No. 11 of 2008 on Information and Electronic Transactions, as amended by Law No. 1 of 2024 (*UU ITE*), formally recognized electronic signatures and electronic documents as legal evidence. Furthermore, Article 15 paragraph (3) of *UU JN* introduced the concept of *cyber notary*, granting notaries the potential authority to certify transactions conducted electronically. However, this regulatory evolution has created significant norm conflicts and legal ambiguities within the legal order. On one hand, Article 5 paragraph (4) of *UU ITE* explicitly excludes authentic deeds and documents that by law must be made in written form from the scope of electronic records and signatures. On the other hand, the drive toward digital governance encourages the implementation of electronic notarization. This contradiction creates a regulatory impasse: while electronic signatures are legally valid for general commercial contracts, their application to authentic notarial deeds remains legally ambiguous under positive law. Untung, H. B. (2022).

This statutory friction poses a severe threat to the principle of legal certainty (*rechtssicherheit*), a foundational pillar of the rule of law as conceptualized by Gustav Radbruch. Legal certainty requires that legal norms be clear, predictable, and consistently enforceable. When an electronic signature is utilized in the execution of a notarial deed without an explicit legal mandate in *UU JN*, the deed risks failing to satisfy the mandatory formal requirements (*syarat formal*) of an authentic deed. Consequently, under Article 16 paragraph (9) of *UU JN*, such procedural defects degrade the evidentiary value of the authentic deed into that of a private deed (*akta di bawah tangan*), or worse, render the deed null and void (*batal demi hukum*). Such an outcome severely undermines the legitimate expectations of the contracting parties, exposes the notary to civil liability and administrative sanctions, and compromises the stability of legal relations in financial and property transactions. Wijaya, I. K., & Suartini, N. L. (2024).

Although previous studies have explored the general concept of *cyber notary* and the economic benefits of digital notarization, limited academic literature has systematically evaluated the intersection between the technical validity of electronic signatures and the strict formal requirements of authentic deeds from the explicit lens of legal certainty. Most existing research remains fragmented, focusing either on the technical security of asymmetric cryptography in certified electronic signatures or advocating for rapid digitization without fully addressing the systemic civil law implications of legal degradation. Zein, A. A. A. (2022).

To address this critical research gap, this study examines two fundamental issues: First, how does positive law regulate the legal validity of electronic signatures within the framework of authentic notarial deeds? Second, what are the legal certainty implications for the contracting parties and the notary when electronic signatures are employed in deed execution? By employing a normative legal research methodology incorporating statutory, conceptual, and comparative approaches, this article aims to harmonize conflicting legislative provisions,

analyze the civil consequences of non-compliance, and formulate a coherent legal framework to guide legislative reform toward a secure and legally sound *cyber notary* model. Zulfikar, I. M. (2024).

B. Research Method

1. Type of Research

This study employs a normative legal research methodology (*doctrinal legal research*). Normative legal research is an approach that analyzes law as a system of positive norms, principles, rules, and jurisprudence within a structured legal framework. This methodology is particularly suitable for addressing normative conflicts, legal vacuums, and ambiguities arising from the application of electronic signatures in authentic notarial deeds. Rather than assessing empirical social facts, this research focuses on evaluating the internal consistency, statutory coherence, and legal certainty of positive law provisions regarding digital notarization. Alkatiri, N. H., Putra, M. F. M., & Ongko, K. (2023).

2. Research Approaches

To provide a comprehensive examination of the research problem, four distinct analytical approaches are utilized:

- a. Statutory Approach (*Statute Approach*): Involves a rigorous examination of all relevant legislation, statutory regulations, and normative rules governing electronic transactions and notary functions in Indonesia.
- b. Conceptual Approach (*Conceptual Approach*): Analyzes theoretical concepts, legal doctrines, and academic paradigms related to the principle of legal certainty (*rechtssicherheit*), the evidentiary nature of authentic deeds (*volledig bewijs*), and the doctrinal framework of *cyber notary*.
- c. Analytical Approach (*Analytical Approach*): Evaluates the logical structure, legal definitions, and normative intent behind statutory provisions to identify hidden ambiguities and conflicting legal consequences.
- d. Comparative Approach (*Comparative Approach*): Briefly compares regulatory frameworks and legal mechanisms of electronic notarization across selected civil law jurisdictions to identify best practices for legislative reform. Amajihono, R. M. (2022).

3. Types and Sources of Legal Materials

This research relies entirely on secondary data in the form of legal materials, categorized into three distinct hierarchical levels:

- a. Primary Legal Materials (*Bahan Hukum Primer*): Legally binding authoritative instruments, comprising:
 - 1) The Indonesian Civil Code (*Burgerlijk BW*), specifically Book IV on Evidence and Prescription;
 - 2) Law No. 30 of 2004 concerning the Position of Notaries, as amended by Law No. 2 of 2014 (*UU JN*);
 - 3) Law No. 11 of 2008 concerning Information and Electronic Transactions, as amended by Law No. 1 of 2024 (*UU ITE*);
 - 4) Government Regulation No. 71 of 2019 on the Implementation of Electronic Systems and Transactions (*PP PSTE*);
 - 5) Supreme Court decisions and constitutional court rulings relevant to electronic evidence and notary authority.
- b. Secondary Legal Materials (*Bahan Hukum Sekunder*): Non-binding academic works that provide analysis, interpretation, and explanation of primary legal materials,

including peer-reviewed law journals, authoritative legal textbooks, research monographs, conference proceedings, and expert legal opinions.

- c. Tertiary Legal Materials (*Bahan Hukum Tersier*): Supplementary legal references used to clarify terms and definitions, including legal dictionaries, encyclopedias, and legal glossaries. Arben, A., & Utama, A. S. (2024).

4. Collection Technique of Legal Materials

Legal materials are collected through comprehensive library research (*studi kepustakaan*). This process involves systematic identification, documentation, classification, and inventorying of relevant primary statutes, regulatory frameworks, and legal literature. The collection process utilizes database searches across physical law libraries, academic repositories, and electronic legal databases. Daffa, M. A., & Ramadhani, F. (2023).

5. Method of Legal Processing and Analysis

The gathered legal materials are processed through qualitative legal analysis using normative-deductive reasoning. The legal syllogism method is applied, wherein primary legal provisions serve as the major premise, the legal problems regarding electronic signature implementation serve as the minor premise, and a normative legal conclusion is deduced. Efendi, W. A., & Sesung, R. (2025).

Furthermore, legal interpretation techniques are employed to resolve norm conflicts, including:

- a. Grammatical Interpretation: Analyzing the literal wording and technical terminology used in statutory provisions;
- b. Systematic Interpretation: Examining legal norms in relation to the legal system as a whole;
- c. Teleological (Purposive) Interpretation: Evaluating legal rules in light of their underlying social and legal purpose;
- d. Legal Conflict Resolution Principles: Applying legal maxims such as *lex specialis derogat legi generali* (special law derogates general law) and *lex superior derogat legi inferiori* (higher law derogates lower law) to evaluate the hierarchy between UU ITE and UU JN. Fitcanisa, J. D., & Azheri, B. (2023).

C. Result and Discussion

1. Normative Conflict and the Legal Validity of Electronic Signatures in Notarial Deeds

An analysis of positive law in Indonesia reveals a fundamental statutory clash regarding the legal validity of electronic signatures (*Tanda Tangan Elektronik*) when applied to authentic notarial deeds. Statutory Conflict: Law No. 11/2008 jo. Law No. 1/2024 (UU ITE) Law No. 30/2004 jo. Law No. 2/2014 (UU JN)

- a. Article 5(1) & (2)
- b. Article 16(1)(m) & Article 44
- c. Validates electronic documents and Mandates physical presence, reading
- d. signatures as legal evidence. aloud, and wet signatures on paper. Ramadhan, A. M. (2025).

Exclusion Clause Article 5(4)

- a. Authentic notarial deeds are explicitly
- b. excluded from the scope of UU ITE.

The statutory friction between general electronic transaction rules and notary legislation manifests across three primary legal provisions:

- a. Explicit Exclusion under UU ITE: While Articles 5(1) and 5(2) of Law No. 11 of 2008 as amended by Law No. 1 of 2024 (*UU ITE*) recognize electronic signatures and electronic documents as valid legal evidence, Article 5(4) explicitly limits this authority. It stipulates that electronic recognition does not apply to letters or documents that, under statutory law, must be executed in written form or in the form of an authentic deed drawn up by a notary or land deed official (*PPAT*).
- b. Mandatory Procedural Formalities under UU JN: Law No. 30 of 2004 as amended by Law No. 2 of 2014 (*UU JN*) establishes strict procedural requirements for deed execution (*verlijden*). Article 16 paragraph (1) letter m and Article 44 of *UU JN* require physical presence (*in person*) of the appearing parties, the oral reading of the deed by the notary, and immediate signing via physical wet signatures (*tanda tangan basah*) on paper, adhering to the principle of unity of action (*eenheid van handeling*).
- c. Ambiguity of the Cyber Notary Mandate: Article 15 paragraph (3) of *UU JN* references notary authority to "certify transactions conducted electronically" (*cyber notary*). However, without detailed implementing regulations (*regeiting/besluit*), this provision functions as a passive norm. It permits notaries to certify electronic documents in general commercial contexts, but does not override the mandatory physical formalities required for authentic deeds. Robinson, R., Sulistyawaty, S., & Isnainul, O. (2025).

Applying the legal principle of *Lex Specialis Derogat Legi Generali* (special law overrides general law), *UU JN* serves as the *lex specialis* governing authentic deeds. Consequently, executing an authentic deed using electronic signatures without explicit statutory amendments to *UU JN* violates positive legal norms. Saraswati, P. S., & Susrama, N. (2023).

2. Implications for Legal Certainty and Evidentiary Value

The failure to satisfy statutory procedural formalities directly impairs the legal certainty (*rechtssicherheit*) guaranteed to the contracting parties and exposes both the deed and the notary to severe legal consequences. Syahmi, T. F., & Pratama, A. (2026).

Table 1. Resume Legal Dimension and Conventional Notarial Deed

Legal Dimension	Conventional Notarial Deed	Electronic Execution (Current Framework)
Evidentiary Strength	Full/Perfect Proof (<i>Volledig Bewijs</i>)	Private Writing (<i>Akta Di Bawah Tangan</i>)
Statutory Compliance	Fully Compliant with <i>UU JN</i>	Non-Compliant with Art. 16(1)(m) <i>UU JN</i>
Legal Status of Deed	Valid Authentic Instrument	Defective in Form / Subject to Nullity
Notary Liability	Protected by Presumption of Validity	Vulnerable to Civil Tort (Art. 1365 KUHPer)

Degradation of Evidentiary Value: Under Article 16 paragraph (9) of *UU JN*, if a notary fails to enforce physical presence or wet signatures during deed execution, the deed loses its legal standing as an authentic deed (*akta otentik*). Its evidentiary strength is automatically downgraded to that of a private deed (*akta di bawah tangan*). As a result, the deed no longer

provides conclusive proof (*volledig bewijs*) under Article 1868 of the Civil Code, shifting the burden of proof (*bewijslast*) back to the relying party in civil litigation:

- a. Risk of Legal Nullity: Where electronic execution circumvents mandatory statutory formalities that are structural to the existence of an authentic instrument, courts may declare the deed null and void (*batal demi hukum*). This renders the rights, obligations, and transfers established within the deed unenforceable, creating profound legal instability in financial, corporate, and real estate transactions.
- b. Civil Liability and Sanctions for Notaries: Executing deeds via electronic signatures in contravention of current positive law constitutes an unlawful act (*onrechtmatige daad*) under Article 1365 of the Civil Code. Affected parties are legally entitled to sue the notary for indemnification covering costs, damages, and lost interest (*ganti rugi, biaya, dan bunga*). Furthermore, the notary faces administrative sanctions from the Notary Supervisory Board (*Majelis Pengawas Notaris*), ranging from written warnings to honorable or dishonorable suspension. Ghani, A. A., & Priyono, E. A. (2025).

Achieving true legal certainty requires a comprehensive legislative reform that harmonizes Article 5(4) of *UU ITE* with Article 16 of *UU JN*. Such reform must establish clear technical protocols for certified electronic signatures, secure video-conferencing verification, and cryptographic archival infrastructure to ensure digital deeds preserve the authentic character required by law. Herliyan, E., Sutrisno, E., & Astawa, I. G. P. (2025).

Discussion

The tension between traditional notarial formalities and modern digital infrastructure highlights a fundamental conflict within legal theory, specifically between legal certainty (*Rechtssicherheit*) and social utility (*Zweckmässigkeit*). Under Gustav Radbruch's framework, legal certainty demands predictability, clarity, and strict adherence to positive statutory rules. In civil law jurisdictions, the authentic deed serves as the bedrock of legal certainty in private law transactions, granting complete evidentiary power (*volledig bewijs*) that binds judicial determination. When electronic signatures are introduced into this environment without explicit legislative authorization, the predictability of legal relations breaks down, exposing contracting parties to unquantifiable legal risks. Koos, S. (2023).

1. Theoretical Tension: Legal Certainty vs. Digital Utility
Radbruch's Legal Triad in Digital Notarization. Legal Certainty (*Rechtssicherheit*):
a. Strict Formalities Technological Utility
b. Physical Presence & Electronic Signatures & Wet Signatures Remote Execution)

2. Justice (*Gerechtigkeits* - Utility (*Zweckmässigkeit*))

The primary justification for adopting electronic signatures in notarial practice is procedural efficiency and economic utility. However, prioritizing utility at the expense of strict statutory adherence undermines the constitutional mandate of legal certainty. Authentic deeds derive their superior evidentiary status not merely from the content of the instrument, but from the strict procedural safeguards surrounding their execution (*verlijden*). When these safeguards are bypassed electronically in contravention of Article 16 paragraph (1) letter m of Law No. 30 of 2004 as amended by Law No. 2 of 2014 (*UU JN*), the deed loses its presumption of authenticity, triggering legal instability across commercial and financial markets. Marquez, N. Y., Sejati, H., & Tohari, M. (2024).

3. Deconstructing the "Cyber Notary" Misconception

Proponents of immediate digital notarization frequently point to Article 15 paragraph (3) of *UU JN*, which references notary authority to "certify transactions conducted electronically." However, treating this provision as an immediate authorization for executing authentic deeds electronically represents a fundamental misinterpretation of statutory drafting:

- a. Imperfection of the Statutory Norm: Article 15 paragraph (3) operates as an incomplete legal norm (*lex imperfecta*). It establishes an abstract domain of competence without providing operational rules, technical protocols, or implementing regulations (*peraturan pelaksana*).
- b. The Unyielding Barrier of Article 5(4) *UU ITE*: Law No. 11 of 2008 as amended by Law No. 1 of 2024 (*UU ITE*) explicitly excludes authentic deeds from the scope of valid electronic documents. This statutory exclusion acts as a negative mandate that directly restricts the application of electronic signatures to authentic instruments.
- c. Hierarchy of Legal Maxims: Under the principle of *Lex Specialis Derogat Legi Generali*, the procedural formalities codified in *UU JN* override the general validation of electronic signatures in *UU ITE*. As long as *UU JN* explicitly mandates physical presence and physical wet signatures on paper, electronic execution remains legally non-compliant. Munib, A., & Purnomo, H. (2025).

4. The Functional Dilemma: Physical Presence vs. Digital Verification

The core obstacle to implementing electronic signatures in authentic deeds lies in replicating the protective functions of physical presence (*in person*) through digital media. In traditional notarial execution, physical presence serves three essential legal functions. Physical Presence Protective Functions:

- a. Identity Verification
- b. Capacity Assessment
- c. Free Will & Consent
- d. Direct inspection of Real-time evaluation
- e. Observation of physical official identity of legal capacity
- f. Environment to exclude
- g. Documents in person. (*bekwaamheid*).
- h. Coercion/undue influence. Nugroho, M. R. P. (2026).

While certified electronic signatures utilizing Public Key Infrastructure (PKI) offer strong cryptographic security regarding data integrity and non-repudiation, they only authenticate the *digital key*, not the *physical individual* operating the device at the precise moment of signing. Without secure, real-time biometric attestation and high-definition video conferencing protocols integrated directly into a centralized state system, a notary cannot definitively verify the absence of coercion (*duress*) or confirm full legal capacity (*bekwaamheid*). Paramita, S. (2023).

5. Civil Consequences and Market Instability

The legal degradation of an authentic deed to a private writing (*akta di bawah tangan*) under Article 16 paragraph (9) of *UU JN* carries catastrophic consequences for commercial transactions:

- a. Loss of Executorial Force (*Kracht van Gewijsde*): Authentic deeds containing a grossing clause (*Demi Keadilan Berdasarkan Ketuhanan Yang Maha Esa*) carry immediate executorial authority equivalent to a final court judgment. A degraded private deed loses this executorial power, forcing creditors to initiate lengthy and costly civil lawsuits to enforce their rights.

- b. Shifting Burden of Proof (*Bewijslast*): An authentic deed provides conclusive proof of its date, contents, and signatures. Once degraded to a private deed, if the opposing party denies the signature or content under Article 1875 of the Civil Code, the burden of proof shifts back to the party relying on the deed.
- c. Exposure to Nullity and Tort Claims: Contracts executed via defective deeds risk being declared null and void (*batal demi hukum*). Affected parties may sue the notary under Article 1365 of the Civil Code (*Onrechtmatige Daad*) for actual damages, lost profits, and legal costs incurred due to procedural defects. Poliakov, O. (2024).

6. Legislative Roadmap for Legal Harmonization

To resolve the existing statutory conflict and achieve true legal certainty, Indonesia must undertake a systematic reform of its notary and electronic transaction laws.

Table 2. Resume Reform Dimension and Current Legal Framework

Reform Dimension	Current Legal Framework	Proposed Legislative Reform
UU ITE Amendment	Art. 5(4) explicitly excludes authentic deeds.	Remove the absolute exclusion; recognize electronic deeds executed under specialized notary protocols.
UU JN Reform	Mandates physical presence and paper wet signatures.	Define "presence" to include secure real-time audio-visual interaction; legalize qualified electronic signatures.
Technical Infrastructure	Fragmented digital tools; non-standardized signing.	Establish a centralized national Cyber Notary Protocol (CNP) under the Ministry of Law and Human Rights.
Security Standards	Standard electronic signature providers.	Mandate highest-level certified electronic signatures with biometric multi-factor authentication.

Harmonizing these legal provisions will allow Indonesia to modernize its legal infrastructure while preserving the solemnity, authenticity, and legal certainty that define the notary's role in civil law tradition. Puspitasari, M., & Badriyah, S. M. (2024).

D. Conclusion and Suggestions

1. Conclusion

The integration of electronic signatures into the execution of authentic notarial deeds represents a critical juncture where technological modernization confronts established legal norms in the civil law tradition. Under current Indonesian positive law, a fundamental normative conflict exists between Article 5 paragraphs (1) and (2) of Law No. 11 of 2008 as amended by Law No. 1 of 2024 (*UU ITE*), which validates electronic signatures, and Article 5 paragraph (4) of *UU ITE* alongside Article 16 paragraph (1) letter m of Law No. 30 of 2004 as amended by Law No. 2 of 2014 (*UU JN*), which strictly mandates physical presence and physical wet signatures.

Applying the doctrine of *lex specialis derogat legi generali*, *UU JN* prevails as the governing framework for authentic deeds. Consequently, utilizing electronic signatures

without explicit statutory authorization under *UU JN* violates mandatory formal requirements, directly compromising the principle of legal certainty (*rechtssicherheit*). Such procedural non-compliance degrades the evidentiary strength of the deed from an authentic instrument (*akta otentik*) to a private writing (*akta di bawah tangan*), depriving the parties of conclusive proof (*volledig bewijs*) and executorial force, while exposing notaries to civil liability under Article 1365 of the Civil Code (*Onrechtmatige Daad*) and administrative sanctions.

2. Suggestion

Legislative Harmonization: Parliament and the Government should amend *UU JN* to explicitly recognize qualified electronic signatures and redefine the concept of physical presence (*in person*) to encompass real-time, high-definition, encrypted audio-visual interaction. Simultaneously, Article 5 paragraph (4) of *UU ITE* must be revised to remove the absolute exclusion of authentic deeds executed under specialized notary protocols.

Establishment of a National Cyber Notary Protocol (CNP): The Ministry of Law and Human Rights, in coordination with the Ministry of Communication and Digital, should issue detailed implementing regulations establishing a centralized, secure national Cyber Notary platform. This platform must integrate Public Key Infrastructure (PKI), qualified biometric multi-factor authentication, and immutable cryptographic archival systems to guarantee real-time identity verification, voluntariness, and deed integrity.

Institutional Strengthening and Ethical Oversight: The Indonesian Notary Association (*Ikatan Notaris Indonesia*) and the Notary Supervisory Board (*Majelis Pengawas Notaris*) should formulate standardized codes of conduct and technical guidelines for digital notarization. Continuous professional education programs must be implemented to ensure notaries possess the technical competence required to prevent cyber threats, safeguard personal data, and preserve the solemnity of authentic deed execution in the digital era.

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