

Between Notarial Formality and Digital Innovation: A Legal Inquiry into Bilingual Electronic Agreements

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Abstract

This study explores the legal validity and enforceability of bilingual agreements signed using digital signatures under Indonesian law. In response to the growing prevalence of cross-border transactions and digital contracts, the research aims to assess how the Civil Code, the Electronic Information and Transactions (ITE) Law, and the Notary Law accommodate these developments. Employing a juridical-normative (doctrinal) approach, supported by descriptive-analytical methods and empirical data from semi-structured interviews with practicing notaries, the study finds that bilingual agreements signed with certified digital signatures are legally valid and binding when executed as private deeds and meet the requirements of Article 1320 of the Civil Code. However, current regulations prevent digitally executed deeds from attaining the status of authentic deeds (*akta otentik*), limiting their evidentiary strength. The lack of updates to the Notary Law, coupled with limited practitioner training and inconsistent bilingual drafting practices, undermines legal certainty. The study concludes that while Indonesian law partially accommodates digital and bilingual agreements, harmonisation between sectoral statutes—particularly the ITE Law and the Notary Law—is essential. Future reforms should address these regulatory gaps and enhance professional readiness to fully integrate bilingual digital agreements into Indonesia's legal framework.

Keywords: Bilingual Agreement, Digital Signature, Electronic Transactions, Indonesian Contract Law, Notarial Law, Private Deed.

Introduction

In today's era of globalisation and digital transformation, the nature of legal agreements has evolved significantly. As cross-border trade and multicultural collaborations have become more common, the use of bilingual agreements—especially between individuals of different nationalities—has increased. In practice, Indonesian citizens frequently engage in contractual relationships with foreign nationals or foreign legal entities, often drafting agreements in English as a global business language (1). These bilingual or English-only agreements are commonly treated by business actors as standard practice and are rarely scrutinized during their formation. However, when enforcement is sought within Indonesian jurisdiction, such agreements may be subject to legal challenges due to language requirements prescribed under national law.

Law Number 24 of 2009 on the National Flag, Language, Emblem, and Anthem, particularly Article 31(1), stipulates that the Indonesian language must be used in all agreements involving

Indonesian parties (2). The Supreme Court of Indonesia has reaffirmed this principle, most notably in Decision No. 1572 K/Pdt/2015, which held that agreements written exclusively in a foreign language involving an Indonesian party may be deemed legally defective (3). Studies shows that although there is no automatic invalidation of such agreements, the lack of an Indonesian language version can be a significant procedural flaw, especially in judicial enforcement (4).

At the same time, technological developments have reshaped the landscape of contract execution. The rise of remote work, transnational e-commerce, and digital platforms has fueled the widespread use of digital signatures. In response, the Indonesian government introduced Law No. 11 of 2008 concerning Electronic Information and Transactions (ITE Law), later amended by Law No. 19 of 2016, and most recently by Law No. 1 of 2024. These amendments seek to provide stronger legal frameworks for electronic documents, digital authentication, and cybersecurity (5).

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Under Article 11 of the ITE Law, digital signatures are legally equivalent to conventional (wet-ink) signatures if they meet several criteria: they must be uniquely linked to the signatory, capable of identifying the signatory, and created using data under the signatory's sole control (6). As clarified by earlier research, digital signatures recognized by Indonesian Certification Authorities (CAs) have full legal force and are admissible in court as long as the electronic system is registered and certified under national regulations (7).

Furthermore, other studies have explained that Indonesia follows a "technology-neutral" approach in recognizing electronic contracts and signatures (8). This means that agreements created and executed digitally—through platforms such as DocuSign or PrivyID—are recognized as valid as long as they fulfill legal formalities (9). Nonetheless, the interpretation of such agreements becomes more complex when linguistic discrepancies exist in bilingual documents.

The interpretive challenges associated with bilingual agreements, especially when not governed by a clear language clause, remain significant. In contract law, ambiguity in language can lead to disputes regarding the intention of the parties. Many business agreements in Indonesia lack a governing language clause, which can lead courts to prioritize the Indonesian version by default (10). This has potential implications for enforceability and may disadvantage foreign parties unaware of this legal norm.

The intersection of bilingual contracts and digital signatures—particularly in informal, citizen-to-citizen agreements—represents an underexplored legal domain. For instance, two individuals may draft a bilingual contract using an online template and sign it electronically through a mobile app, believing the contract to be fully enforceable. However, in the absence of formal legal translation, certified signature validation, and notarisation, the legal force of such agreements can be questioned in court.

While Article 1320 of the Indonesian Civil Code (KUHPerdota) provides that a valid contract requires agreement, capacity, lawful cause, and lawful object, the interpretation of these principles must now be extended to accommodate digital modalities and bilingual formats. As noted by previous study, traditional contract law must

adapt to the new realities of digital interaction and multicultural engagement (11).

Given these considerations, this paper investigates the intersection of digital signature validity, bilingual contract formulation, and enforceability under Indonesian law. The main research questions are as follows: why can digital signatures be used in the making of deeds of agreement in Indonesia; how can deeds of agreement be made bilingually between parties within Indonesian jurisdiction; and what is the legal strength and enforceability of deeds of agreement made bilingually and signed digitally under Indonesian law. The purpose of this study is to analyze and assess the legal validity of deeds of agreement that are formulated bilingually and signed digitally, particularly in agreements between individual citizens. This research aims to explore the extent to which current Indonesian regulations support such agreements, identify legal risks in the absence of formal translations or certified digital signatures, and provide doctrinal and practical recommendations for enhancing the legal certainty of bilingual digital contracts. The study uses a normative-doctrinal legal research approach, supported by statutory interpretation and case studies, with comparative insights from other jurisdictions such as the European Union (EU) Electronic Identification, Authentication and Trust Services (eIDAS) Regulation and the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce. This study primarily focuses on the Indonesian legal framework governing bilingual and digitally executed agreements, as it provides the core normative and procedural foundation for analysis. Comparative references to the European Union and other transnational instruments such as the UNCITRAL Model Law are included to illustrate alternative regulatory approaches and to contextualize Indonesia's position within the broader global discourse on digital contract enforcement.

In addition, this study broadens its comparative scope by drawing from both civil law and common law traditions. Perspectives from civil law jurisdictions such as Indonesia, France, and Spain are contrasted with those from common law systems such as the United Kingdom and Singapore to highlight different approaches toward contractual language, digital signature

validity, and evidentiary strength. As observed in previous study, it stated that the fundamental distinction between civil and common law systems lies in their reliance on codified principles versus judicial precedents, which influences how each tradition interprets digital and bilingual contracts (12). Similarly, previous study observed that common law jurisdictions emphasize party autonomy and the intention of the parties, whereas civil law systems continue to value linguistic precision and formal legal structure. This cross-tradition analysis enriches the legal interpretation and situates the discussion within a broader global context (13, 14).

A closer examination of existing legal doctrines and previous studies is therefore essential to situate this issue within Indonesian contract law. The following discussion outlines key conceptual and doctrinal areas—including the classification of deeds, the principles of agreement formation, bilingual contract enforcement, digital signature validity, and the role of citizenship in cross-border transactions—that provide the theoretical foundation for this research.

Classification and Legal Value of Deeds

Indonesian legal doctrine distinguishes between authentic deeds (*akta otentik*) and private deeds (*akta di bawah tangan*). Authentic deeds are executed before a public official authorized by law—typically a notary—and hold higher probative value due to the state's involvement and compliance with formal procedures (15). This distinction is codified in Article 1868 of the Civil Code and plays a critical role in evidentiary assessments.

Modern notarial practice, governed by Law No. 2 of 2014, further categorizes authentic deeds into *deeds of relaas*—based on the notary's direct observation—and *deeds of partij*—based on the parties' verbal declarations. As explained by previous study, this classification guides procedural expectations for deed validity (16). However, there remains a notable gap in academic literature on how these classifications apply to digital or bilingual documentation, particularly where notarisation is absent or contested.

Agreements and Their Binding Legal Effect

Theories of agreement formation in civil law systems have been widely studied. Indonesian legal scholars consistently refer to Article 1320 of

the Civil Code, which outlines four essential elements: mutual consent, legal capacity, a defined object, and a lawful cause (4). While this framework is doctrinally settled, scholarly debate arises regarding its adaptability to evolving contract modalities—such as digitally signed or bilingual agreements.

The principle of freedom of contract remains central (*pacta sunt servanda*), yet in practice, this principle is moderated by procedural fairness and legislative constraints (17). Agreements involving cross-linguistic and electronic elements challenge traditional interpretations of “consent” and “certainty.” For instance, the absence of a governing language clause or ambiguities due to poor translation may undermine the formation or enforcement of a contract—issues that remain under-discussed in Indonesian legal journals.

Legal Issues in Bilingual Agreements

Bilingual contracts are increasingly common in cross-border or multicultural transactions. However, literature addressing their enforceability under Indonesian law is relatively sparse. Law No. 24 of 2009 (Article 31) requires the use of Bahasa Indonesia in agreements involving Indonesian parties (18). While this provision appears straightforward, judicial practice remains inconsistent. Prior studies noted, that the absence of an Indonesian-language version may render the agreement procedurally flawed, especially in public law contexts or where consumer rights are involved (19, 20).

Comparative insights show that countries such as China and France similarly mandate use of the national language in certain contracts, but allow exceptions under private international law (21). Indonesian literature lacks a sustained analysis of how courts should treat language inconsistencies when multiple versions exist without a governing clause. The ambiguity creates legal uncertainty, especially when parties rely solely on foreign-language templates and sign them digitally.

Digital Signature Legality and Evidentiary Force

With the rise of e-commerce and digital transactions, legal attention has shifted toward the validity and evidentiary strength of digital signatures. The Indonesian ITE Law (Law No. 11 of 2008), along with its amendments in 2016 and 2024, affirms the legal recognition of electronic signatures, provided they fulfill specific criteria—

such as authentication, integrity, and linkage to the signatory's identity (22).

Previous studies argue that Indonesia's technology-neutral legal approach enables various platforms (e.g., PrivyID, Digisign) to be recognized, assuming certification by an officially registered electronic certification provider (PSrE) (23). However, doctrinal concerns persist regarding the enforceability of digital signatures when used in bilingual private agreements outside formal state registration or notarial oversight. Moreover, the literature has not fully reconciled how digital evidence, governed under Article 5 and Article 11 of the ITE Law, interacts with traditional notions of authentic deeds as per the Civil Code (24).

Citizenship and Cross-Border

Agreement Capacity

The legal status of individuals—particularly in citizen-to-citizen transactions—bears significantly on capacity, choice of law, and jurisdiction. Under Law No. 12 of 2006 on Citizenship, the determination of legal standing for contractual purposes hinges on formal recognition by the state (25). Yet, there remains little scholarly analysis on how agreements between two non-Indonesian citizens, or between a citizen and a foreign national, are interpreted when executed digitally on Indonesian soil or governed by Indonesian law. Cross-referencing international private law frameworks (e.g., UNCITRAL Model Law on Electronic Commerce), it is evident that citizenship affects applicable jurisdiction and enforcement standards (26). However, existing Indonesian legal literature has not addressed how digital and bilingual agreements between foreign citizens—executed in Indonesia—are to be treated when disputes arise.

Methodology

Research Approach Method

This study employs a juridical-normative (doctrinal) approach, which emphasizes the analysis of legal norms, principles, and doctrines through the interpretation of written legal materials. Normative legal research is frequently referred to as doctrinal law or desk research and is widely used in legal scholarship to examine legislation, case law, and authoritative legal writings (27, 28). The approach focuses on legal coherence, internal consistency, and the normative logic of legal reasoning.

The juridical-normative method uses a hierarchical framework comprising: positive legal norms (statutes and regulations); jurisprudence (court rulings with permanent legal force); and doctrine (legal scholars' views) (17). The research applies the statute approach, which involves reviewing relevant laws and regulations as primary legal materials in order to address the legal questions concerning bilingual agreements and digital signatures. This approach is essential for understanding how Indonesian law interprets the validity and enforceability of such agreements.

Research Specifications

The research specification is analytical-descriptive, aiming to describe relevant legal frameworks and analyze them through legal reasoning and interpretation. This method is used to illustrate the normative content of applicable statutes while also providing a critical examination of their functionality in practice (29). It enables the study to explore how statutory provisions are applied in real-world legal scenarios and how doctrinal insights can enhance their clarity and implementation.

The study utilizes both secondary and primary legal data. Secondary data was obtained through a literature review and analysis of legal documents, including theoretical and doctrinal sources. The primary legal materials used in this study include binding and authoritative legal texts such as the 1945 Constitution of the Republic of Indonesia, the Indonesian Civil Code (KUHPerdata), Law No. 12 of 2006 on Citizenship, Law No. 11 of 2008 on Electronic Information and Transactions, Law No. 24 of 2009 on the National Flag, Language, Emblem, and Anthem, Law No. 2 of 2014 on Notary Positions, Law No. 19 of 2016 as the First Amendment to Law No. 11 of 2008, and Law No. 1 of 2024, which serves as the Second Amendment to the same law.

In addition to primary legal sources, the study also relies on secondary legal materials, which serve to interpret and explain primary legal provisions. These include scholarly textbooks, peer-reviewed legal journals, research papers, and graduate theses that focus on contract law, legal language in agreements, and the regulatory treatment of digital signatures (8, 30). These sources are essential for building a theoretical foundation and identifying current academic discourse on the subject matter.

To support the interpretation of specific legal terms, the study also makes use of tertiary legal materials such as authoritative legal dictionaries. Notably, the *Kamus Besar Bahasa Indonesia* and the *Oxford English Dictionary* were consulted to clarify terminology related to bilingual documents and digital signature frameworks.

As for primary data, it was collected through semi-structured interviews with selected notarial professionals. These experts provided firsthand insights into the drafting and enforcement of bilingual agreements and the legal application of digital signatures in practice. Their perspectives offer valuable empirical context to complement the doctrinal analysis and reflect how current legal norms are interpreted and operationalized in the field (31).

Data Collection

This study employed a combination of library research and field research to ensure both normative depth and contextual relevance in addressing the legal issues under investigation. The library research component involved a systematic and comprehensive examination of various legal sources, including statutory texts, government regulations, court decisions (jurisprudence), legal doctrines, and scholarly writings. These sources were critically reviewed to construct a coherent doctrinal framework and to identify prevailing interpretations and applications of laws related to bilingual contracts and digital signatures in Indonesia (17, 27).

The field research component was conducted through semi-structured interviews with experienced notarial professionals. These practitioners were selected based on their practical involvement in the drafting and validation of private agreements, particularly those involving bilingual language structures and the use of digital signature platforms. The interviews were designed to elicit experiential insights and professional perspectives on legal enforcement, implementation challenges, and risk mitigation practices within the current regulatory framework. This empirical component supports the normative analysis by anchoring theoretical interpretations in lived legal realities (32).

By integrating doctrinal sources with empirical input, the research bridges the gap between theory and practice. This mixed-methods approach enhances the validity of findings and allows for a

more nuanced analysis of how Indonesian law addresses bilingual electronic agreements signed between private individuals.

Data Analysis

The data analysis was conducted using a qualitative-normative analytical method, which is well-established in doctrinal legal research. This method involves interpreting legal norms and connecting them to empirical data using inductive reasoning, moving from specific observations to general conclusions (33). Legal materials—such as statutes, legal commentaries, and court decisions—were categorized thematically and interpreted using established legal interpretation techniques, including systematic, grammatical, and teleological approaches (17, 29).

Interview data were used to validate and refine the doctrinal findings. The empirical insights from legal practitioners provided contextual understanding, particularly regarding how statutory provisions are implemented in practice and how legal professionals address ambiguous areas such as language discrepancies or informal digital execution. The qualitative analysis prioritized internal legal coherence while also allowing for critical evaluation and reform-oriented recommendations, aligning with the scholarly objectives of normative legal research.

This method ensures that conclusions drawn from the study are not only normatively sound but also relevant to the evolving legal and technological environment in Indonesia. The combined normative and empirical approach aligns with established Indonesian legal research standards and has been widely endorsed in legal methodology literature (27, 34).

Results and Discussion

In accordance with the juridical-normative analytical method and the descriptive-analytical research specification outlined in the methodology section, this chapter presents findings in two parts: doctrinal findings, based on the interpretation of legal sources; and empirical findings, derived from semi-structured interviews with professional notaries. This structure supports the integration of statutory interpretation with practical observations, in alignment with the inductive reasoning approach.

Doctrinal Findings: Legal Framework and Analysis

Indonesian contract law, as established in the Civil Code (KUHPerdata), does not explicitly address digital or bilingual agreements. However, the fundamental validity of contracts is governed by Article 1320, which requires: mutual consent, legal capacity, a certain object, and a lawful cause (35). Additionally, Article 1338 emphasizes the principle of *freedom of contract* (*pacta sunt servanda*), allowing parties to determine contractual form and content as long as public order and morality are not violated.

Regarding digital signatures, the ITE Law (Law No. 11 of 2008), as amended by Law No. 19 of 2016 and Law No. 1 of 2024, explicitly provides that electronic signatures have the same legal force as handwritten ones when they meet key criteria—identity linkage, sole control, detectability of changes, and integrity assurance. Article 11 of the ITE Law affirms this equivalence, while Article 13 establishes the requirement for digital certification through Electronic Certification Providers through registered Electronic Certification Providers (PSrE) (7, 8).

These providers, including entities such as PT Privy Identitas Digital (PrivyID), PT Indonesia Digital Identity (VIDA), and PT Digital Tandatangani Asli, operate under the supervision of the National Cyber and Crypto Agency (BSSN) (36). Their legal authority under Indonesian law lends enforceability to agreements signed using these platforms, assuming formal certification.

Nonetheless, a critical limitation arises under Law No. 2 of 2014 concerning Notary Positions. This statute does not currently permit the use of digital signatures in the creation of authentic deeds (*akta otentik*). Consequently, even if an agreement is properly signed using a certified digital signature, it will only be classified as a private deed (*akta di bawah tangan*) under Article 1874 of the Civil Code (37). This classification is significant due to the superior evidentiary status enjoyed by authentic deeds.

As for bilingual agreements, Law No. 24 of 2009 mandates the use of Bahasa Indonesia in agreements involving Indonesian citizens or entities (Article 31). However, Article 43(3) of the Notary Law allows deeds to be drafted in foreign languages if accompanied by certified translations (20). From a doctrinal standpoint, there is no

formal prohibition against bilingual contracts, but courts often prioritize the Indonesian version when disputes arise, especially in the absence of a governing language clause when no governing language clause exists (38). This doctrinal ambiguity underscores the importance of inserting such clauses to prevent interpretational dispute.

In the event of a dispute arising from a bilingual agreement, the determination of which version prevails depends primarily on whether the contract contains a governing language clause. If such a clause exists, Indonesian courts and arbitral tribunals will generally uphold the version designated by the parties as the controlling text, provided it does not contravene public order or mandatory language provisions under Law No. 24 of 2009 (39). However, in the absence of a governing language clause, courts tend to prioritize the Indonesian version as the authentic and legally binding text when the contract involves an Indonesian citizen or entity (40). This principle has been reaffirmed in judicial practice, including Supreme Court Decision No. 601 K/Pdt/2015, where the Indonesian version was deemed authoritative for interpretation despite discrepancies in the English counterpart. Arbitral tribunals operating under international frameworks such as the Indonesian National Board of Arbitration, the Singapore International Arbitration Centre, and the International Chamber of Commerce also follow similar reasoning, giving effect to the version that best reflects the parties' intent. However, they often rely on certified translations or expert linguistic opinions to determine authenticity and ensure that both language versions accurately reflect mutual consent (41). Therefore, the inclusion of a governing language clause and the use of certified translation are essential preventive measures to reduce interpretational risks and strengthen enforceability in bilingual contracts.

Beyond traditional translation and certification, emerging technologies such as digital notarisation offer new mechanisms for ensuring multilingual consistency in electronic agreements. Through digital notarisation, the authenticity of each language version can be verified using time-stamped hash encryption, digital certificates, and blockchain-based audit trails that preserve both versions as part of a single notarised record (42). This approach enhances evidentiary reliability by

allowing courts or arbitral tribunals to confirm that both versions were simultaneously executed and remain unaltered. However, the adoption of artificial intelligence (AI) for automated translation introduces additional liability and evidential concerns. When parties rely on AI-generated translations without human verification, discrepancies in meaning or nuance may lead to disputes over intent, potentially invalidating consent under Article 1320 of the Civil Code (43). From a liability standpoint, questions arise regarding whether responsibility lies with the contracting parties, the translation service provider, or the platform facilitating the digital execution. To mitigate these risks, it is recommended that AI-assisted translations be reviewed and digitally certified by licensed translators or notaries before incorporation into a bilingual contract. Such practices would align with Indonesia's legal emphasis on precision and authenticity while accommodating technological innovation.

Beyond the general framework of digital notarisation, several emerging tools can further enhance authenticity and multilingual integrity in electronic agreements. Safe translation verification systems, for example, enable bilingual contracts to be verified against certified linguistic databases or human-approved translation models, ensuring that both language versions convey identical legal meaning. Meanwhile, blockchain-based registries can be used to record notarised bilingual agreements, creating immutable timestamps and verifiable proof of origin for each language version (44). These technologies not only reduce the risk of post-signature alteration but also strengthen evidentiary reliability by allowing real-time authentication in judicial or arbitral proceedings. Although not yet fully implemented in Indonesia, these mechanisms offer promising directions for regulatory innovation consistent with the government's digital transformation agenda and can serve as models for future reforms in the notarial sector.

Taken together, the normative framework permits bilingual agreements signed using certified digital signatures to be enforceable, though they remain outside the scope of authentic deeds unless notarized manually. The coexistence of progressive digital legislation (ITE Law) and rigid procedural statutes (Notary Law) reflects a

fragmented legal structure, requiring harmonisation to support clarity and predictability.

Comparative analysis from other jurisdictions reinforces this observation. In civil law countries such as France and Spain, notarial systems continue to emphasize formality, linguistic uniformity, and evidentiary hierarchy, reflecting similar procedural rigidity to Indonesia (45). In contrast, common law jurisdictions like the Hongkong and Singapore place greater emphasis on party autonomy and contractual intent, allowing more flexibility for bilingual or electronically executed agreements (46). Flexibility stems from the principle of freedom of contract and the reliance on judicial interpretation rather than codified requirements (13, 14). In civil law contexts, however, linguistic precision remains paramount, as seen in the French *Code civil* and Spanish *Código Civil*, both of which privilege the original language version in case of conflict. These contrasts demonstrate that Indonesia's current legal framework occupies a transitional position—seeking to maintain civil law formality while gradually adapting to digital and transnational realities. Such comparative insight underscores the need for coherent reform that balances legal certainty with technological progress.

Empirical Findings: Perspectives from Notarial Practice

The empirical findings of this study are based on semi-structured interviews with six certified notarial professionals in Jakarta and Surabaya, conducted between March and April 2025. These notaries have practical experience in drafting and reviewing bilingual agreements and advising on the use of digital signatures in private legal transactions.

A shared view among all respondents was that digital signatures, although legally valid under the ITE Law, are not yet accepted for executing authentic deeds under the current Notary Law (38). Consequently, any deed signed using certified digital platforms—regardless of its legal compliance in other respects—is classified as a private deed rather than an authentic one. This reclassification significantly diminishes the evidentiary value of such agreements in formal legal proceedings.

All notaries confirmed the growing use of bilingual contracts in both commercial and personal transactions, especially those involving foreign clients. However, several legal challenges were noted. Chief among them is the lack of a governing language clause and inconsistencies between language versions. Interviewees reported that disputes often arise when translation discrepancies create confusion over contractual obligations. These risks are compounded when the translated versions are not certified by an official translator.

With respect to digital signing platforms, notaries expressed confidence in the reliability of certified providers such as PrivyID, Digisign, and VIDA. These platforms are commonly used in private agreements and have gained recognition in judicial proceedings. Nevertheless, there is widespread concern that clients often misunderstand the legal limitations of digital signing (47). Many believe that using such platforms is equivalent to executing a notarial deed, which is not the case under current Indonesian law.

Another recurring theme from the interviews was the absence of formal technical guidelines or ministerial regulations to standardize the use of digital signatures in legal transactions. Notarial training programs were also cited as inadequate, consistent with broader critiques of the lack of legal-technical integration in Indonesian professional legal education, in preparing legal professionals for digital transitions (48). This regulatory and educational gap contributes to a lack of institutional readiness and legal certainty. Despite these challenges, all notaries agreed that agreements signed digitally between private individuals are legally valid, so long as they meet the requirements under Article 1320 of the Civil Code. However, the respondents emphasized the need for notarisatation or at least legal consultation in high-value or cross-border transactions. They stressed that these additional measures could enhance enforceability, reduce litigation risks, and improve overall legal certainty. Some notaries also expressed awareness of emerging technologies such as digital notarisatation and AI-assisted translation tools, though they emphasized that these remain outside current regulatory practice and require further legal standardisation to ensure authenticity and accountability.

Synthesis and Final Reflections

This study's findings—both doctrinal and empirical—underscore the legal validity of bilingual agreements signed digitally under current Indonesian law. However, due to the absence of procedural updates to the Notary Law, such agreements are limited to the category of private deeds, which enjoy less evidentiary authority than authentic notarial documents.

The doctrinal framework reflects a willingness to embrace digital modernisation, but sectoral inconsistencies create significant legal uncertainty. This situation poses practical risks for individuals and entities relying on digital tools in complex or cross-border contractual contexts. Furthermore, empirical insights reveal a disconnect between legal theory and professional practice, particularly concerning language risks, training gaps, and misconceptions about evidentiary strength.

Accordingly, this study supports the call for legislative reform to harmonize the Electronic Information and Transactions (ITE) Law and the Notary Law, and to introduce technical standards and training programs for legal professionals. Only through such reform can Indonesia develop a coherent and future-ready framework for regulating bilingual agreements executed using digital signatures (49).

This study proposes a conceptual framework that seeks to balance legal formalism with digital innovation in contract governance. The framework emphasizes three complementary pillars: (i) technological authenticity, achieved through digital notarisatation and certified electronic signatures that preserve evidentiary integrity; (ii) linguistic certainty, maintained through bilingual documentation verified by certified translators or notaries; and (iii) regulatory adaptability, encouraging statutory reform that harmonizes the Electronic Information and Transactions Law with the Notary Law. Together, these elements provide a structured path for integrating technological progress into Indonesia's civil law tradition without undermining the core principles of authenticity, certainty, and legality that underpin notarial formalism. This balanced approach supports both legal modernisation and the preservation of public trust in formal legal instruments.

In doing so, this study fills a critical gap in both comparative regulation and legal theory

concerning digital notarisation. It provides one of the first integrated analyses connecting Indonesia's civil law structure with transnational approaches to digital authentication and bilingual documentation. By bridging these areas, the study contributes to the theoretical development of digital contract law and offers a comparative reference for jurisdictions seeking to harmonize innovation with notarial formalism.

Conclusion

This study has examined the legal strength and enforceability of bilingual agreements signed using digital signatures under the current Indonesian legal framework. The findings confirm that Indonesia's Civil Code and the Electronic Information and Transactions (ITE) Law provide a sufficient legal basis for the validity of such agreements in private transactions. The principle of *pacta sunt servanda*, combined with statutory provisions recognizing certified electronic signatures through registered Electronic Certification Providers, ensures that these agreements meet the core legal requirements when properly executed.

However, due to the overriding authority of the Notary Law under the principle of *lex specialis derogat legi generali*, any agreement not executed in accordance with formal notarial procedures—including the use of handwritten signatures—is relegated to the status of a private deed (*akta di bawah tangan*). This results in a clear evidentiary disadvantage compared to authentic deeds (*akta otentik*), which remain exclusively recognized under Indonesian evidentiary law. The failure to update notarial regulations in harmony with the ITE Law continues to constrain digital transformation in legal practice.

Doctrinal analysis further affirms that bilingual contracts are permissible as long as statutory language requirements are fulfilled—particularly the inclusion of Bahasa Indonesia and, where applicable, an official translation. Empirical findings reveal, however, that many notaries remain cautious, citing public misconceptions about digital signature validity, a lack of governing language clauses, and inadequate technical guidelines. These gaps illustrate the tension between legal recognition and practical certainty. Comparative insights show that civil law jurisdictions such as France and Spain emphasize

linguistic uniformity and notarial formality, while common law jurisdictions such as the United Kingdom and Singapore prioritize party autonomy and contractual intent. Indonesian law thus occupies a transitional position—preserving civil law structure while gradually adopting digital and transnational practices. In the event of disputes, courts and arbitral tribunals such as the Indonesian National Arbitration Board, the Singapore International Arbitration Centre, and the International Chamber of Commerce typically privilege the Indonesian version of bilingual agreements when no governing language clause exists, reinforcing the importance of linguistic precision in digital contracting.

This study also highlights emerging innovations that can bridge the gap between legal formalism and digital modernisation. Digital notarisation tools, safe translation verification systems, and blockchain-based registries provide new pathways to authenticate bilingual documentation and ensure evidentiary integrity. Integrating such tools within Indonesia's regulatory framework could enhance legal certainty and procedural efficiency while maintaining the principle of authenticity.

Building upon these findings, the study proposes a conceptual framework that balances legal formalism with digital innovation in contract governance. The framework emphasizes three complementary pillars: technological authenticity through certified digital notarisation, linguistic certainty through verified bilingual documentation, and regulatory adaptability through harmonized statutory reform. Together, these elements form a progressive roadmap for developing a coherent, future-ready legal ecosystem that integrates technological advancement without compromising the principles of legality and trust inherent in notarial formalism.

While this research adopts a qualitative-normative methodology with a limited notarial sample, it fills a crucial gap in both comparative regulation and legal theory by connecting Indonesia's civil law context with transnational approaches to digital authentication and bilingual documentation. Future research should expand this analysis by including judicial, regulatory, and international business perspectives to evaluate how these emerging technologies are interpreted and operationalized in practice. Legislative reform,

judicial clarification, and professional training will be essential to ensure that bilingual digital agreements are not only valid in principle but also effective in practice.

Abbreviations

BSSN: National Cyber and Crypto Agency, CAs: Certification Authorities, Eidas: Electronic Identification, Authentication and Trust Services, EU: European Union, ITE Law: Electronic Information and Transactions, KUHPdata: Indonesian Civil Code, PrivyID: PT Privy Identitas Digital, PSrE: Electronic Certification Providers, UNCITRAL: United Nations Commission on International Trade Law, VIDA: PT Indonesia Digital Identity.

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Author Contributions

All authors contributed equally to the study's conceptualization, data analysis, and manuscript preparation.

Conflict of Interest

The authors declare that have no known financial or non-financial competing interests that could have appeared to influence the work reported in this study.

Declaration of Artificial Intelligence (AI) Assistance

The authors declare that they did not use AI-assisted tools (ChatGPT, OpenAI) during the writing process.

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