



Legality of Electronic Signatures: A Comparative Study Between Indonesia and Singapore

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ABSTRACT

This study evaluates the user experience of the ShopeePay digital wallet application using the User Experience Questionnaire (UEQ) method. The research assessed six dimensions of user experience: attractiveness, clarity, efficiency, reliability, stimulation, and novelty, using a questionnaire completed by 100 active users aged 18-35. Results revealed that ShopeePay provides a positive user experience, with the highest scores for attractiveness (4.43) and clarity (4.45), indicating an appealing and user-friendly design. Despite strong performance, issues such as less intuitive navigation and limited personalization options were identified. Recommendations include improving navigation structure, adding features such as expense analysis and reminders, and offering personalization options to enhance user satisfaction.

INTRODUCTION

The Republic of Singapore is a city-state located at the southern tip of the Malay Peninsula, 137 kilometers (85 miles) north of the equator in Southeast Asia. Its economy is heavily dependent on exports and the processing of imported goods. Singapore has one of the busiest ports in the world and is the fourth-largest foreign exchange trading center globally, after London, New York, and Tokyo. Singapore's economy ranks among the world's ten most open, competitive, and innovative economies and is considered the most business-friendly country. (<http://id.wikipedia.org/wiki/Singapura>)

The wave of economic globalization has significantly influenced the growth and development of business worldwide, including in Singapore. Consequently, Singapore must respond swiftly and effectively by enacting new laws and institutions or adjusting existing ones. In this regard, Singapore has demonstrated its readiness and willingness to learn from legal developments abroad while sharing similar aspirations. Given that trade and investment serve as the backbone of Singapore's economy, its legal system must continuously provide adequate protection for all parties and inspire confidence within the international business community. (<http://www.singaporelaw.sg/content/LegalSystIndon.html>)

The security of information (messages) transmitted in transactions via electronic media holds the highest level of importance. Evidence suggests that electronic messages can be easily altered undetectably, increasing the risk of manipulation of transmitted electronic messages. The growing use of open communication networks (the internet) also heightens the risk of fraud, deception, and unauthorized access.

These concerns necessitate a reliable security system and procedures to ensure trust and legal certainty in communication systems operating over open networks (internet). The legal concept often has only a slight correlation with computer security principles. For example, the concept of an "electronic signature" in computer security is the result of applying computer techniques to information. In contrast, in general terms, a signature has a broader meaning – it is a mark or symbol of a name made to legalize a signed document. An electronic signature is a method of ensuring the authenticity of an electronic document and preventing the sender from denying the transmission of the document at a later time. Electronic signatures employ specialized algorithms and computer techniques in their implementation.

Electronic transactions are generally defined as the exchange of information through an electronic communication system to perform specific legal actions, one of which is to establish civil relationships between parties in executing agreements. Several requirements must be met to carry out electronic transactions, one of which is the authenticity and confidentiality of the message. This has been facilitated by an electronic authentication method known as

“electronic authentication” or “electronic signature.” (Praptika Nurul, 2022, 1948) The concept of an “electronic signature” or digital signature is defined under Indonesia’s Electronic Information and Transactions Law (ITE Law) in Article 1, point 12. It states that an Electronic Signature is a signature consisting of electronic information that is attached to, associated with, or linked to other electronic information, used as a verification and authentication tool for the signer's identity, and ensures the integrity and authenticity of electronic information. This includes one or a set of electronic data, such as writings, sounds, images, maps, designs, photographs, electronic data interchange (EDI), emails, telegrams, telexes, telecopies, or similar, as well as letters, symbols, numbers, access codes, or perforations that have been processed to have meaning or be understandable by those capable of comprehending them. (Ranti Fauza Mayana, 2021, 248)

According to Article 15 of Law No. 2 of 2014, which amends Law No. 30 of 2004 on the Notary Position, a notary has duties and authority beyond drafting authentic deeds, including the authority to certify signatures, determine the date of private documents, record private documents, provide authentication, and exercise other powers as regulated by law. One of the additional authorities mentioned in the explanation of Article 15 of the amended Notary Law is the certification of transactions conducted electronically (Cyber Notary). However, the authority of notaries in Cyber Notary matters lacks further regulation.

In addition to the absence of detailed procedural regulations on Cyber Notary implementation, there is also a normative disharmony between Article 15(3) and Article 16(1)(m) of Law No. 2 of 2014. The latter states that a notary must read the deed in the presence of the parties and two witnesses. However, in Cyber Notary, the parties do not appear before the notary physically but instead via electronic means such as teleconferencing or video calls.

The uncertainty regarding the legality of a notary's authority to create authentic deeds using the Digital Signature concept leads to legal uncertainty for parties seeking to create authentic electronic deeds and questions the validity of such deeds under the Cyber Notary concept. Based on the background above, this study aims to address the following issues: what are the powers of notaries in Indonesia and Singapore, and how is the legality of electronic signature regulations structured in both countries?

RESEARCH METHOD

This study employs normative legal research, also known as doctrinal legal research. This type of research examines statutory regulations (“law in books”) or conceptualizes law as norms that serve as guidelines for human behavior considered appropriate. (Amiruddin, H. Zainal Asikin, 2018, 118)

According to Muhaimin in his book *Legal Research Methods*, normative legal research is typically a document study, utilizing legal materials such as laws and regulations, court decisions, contracts/agreements, legal theories, and scholarly opinions. (Muhaimin, 2020, 45)

The method used to collect legal sources in this article is library research (literature study) supplemented by digital research through the internet. To gather legal materials, the researcher combines and studies books and methods related to the research title to obtain legal information from these sources.

Based on the research problem, the analytical process involves structuring legal materials, organizing them into patterns or structured categories, and forming a fundamental descriptive framework. The legal analysis applied in this study involves interpretation (hermeneutic analysis).

Legal material analysis is conducted as a process of critical examination, which may include opposing, criticizing, supporting, expanding, or commenting on legal findings before drawing conclusions based on reasoning, supported by relevant theories. The nature of normative legal research analysis is prescriptive, meaning it provides arguments for the research findings.

DISCUSSION

1. Notary Authority in Indonesia and Singapore

a. Notary Authority in Indonesia

The authority of a notary as a public official includes four main aspects:

1. The notary must have the authority concerning the deed being made.
2. The notary must have the authority regarding the individuals for whom the deed is created.
3. The notary must have the authority regarding the location where the deed is executed.
4. The notary must have the authority regarding the timing of the deed's creation. (G.H.S Lumban Tobing, 1983, 49)

The authority of a notary is stipulated in Article 15(1) of the Notary Office Act, which states:

"A notary has the authority to create authentic deeds concerning all acts, agreements, and stipulations required by laws and regulations and/or desired by interested parties to be expressed in an authentic deed, ensuring the certainty of the deed's date of creation, storing the deed, providing grosse, copies, and excerpts of the deed, as long as the making of such deeds is not assigned or excluded to another official or person designated by law."

Additional authorities of a notary include:

- a. Legalizing signatures and certifying the certainty of the date of private documents by registering them in a special book.
- b. Recording private documents in a special register.
- c. Creating copies of original private documents in the form of excerpts that contain the details written and illustrated in the relevant document.
- d. Certifying the authenticity of photocopies of original documents.
- e. Providing legal consultation related to deed creation.
- f. Drafting deeds related to land affairs.
- g. Drafting auction minutes.

Additionally, Article 15(3) of the Notary Office Act states that, apart from the above-mentioned authorities, a notary may have other authorities as regulated by law.

b. Notary Authority in Singapore

The laws governing notaries public in Singapore have existed since 1959 under the *Malaya Ordinance No. 41 of 1959*. At that time, Singapore was still part of Malaya (now Malaysia). After separating from Malaya in 1965, Singapore revised its notary regulations five years after gaining independence, issuing *Edition Chapter 11* in 1970. Subsequently, in 1985, Singapore enacted the *Notaries Public Act (Edition Chapter 208)*, which was last amended in 1997.

The *Notaries Public Act (Cap. 208)* is the primary legislation governing the authority, duties, and responsibilities of notaries public in Singapore. This law provides the legal framework for who can be appointed as a notary public and what authorities they possess. The key aspects of the *Notaries Public Act* include:

- a. The qualifications required to become a notary public (e.g., the individual must be a registered lawyer in Singapore).
- b. The appointment process of a notary public by the Singapore Ministry of Law.
- c. The types of documents that can be authenticated or notarized by a notary public.
- d. Regulations concerning the revocation of a notary public's license in case of legal violations.

Other regulations related to notary public authority in Singapore include:

- **Public Notaries Rules (Notaries Public Act):** This rule further explains administrative procedures and the methods that notaries public must follow in carrying out their duties, including record-keeping and documentation responsibilities.

- **Legal Profession Act (Cap. 161):** While not directly regulating notaries public, this law governs the legal profession in Singapore, including lawyers, as only qualified lawyers can be appointed as notaries public.
- **International Conventions and Treaties (Apostille Convention):** Singapore is a party to the Hague Apostille Convention, which facilitates the legalization of documents for international use. Notaries public play a key role in issuing apostilles on documents for international recognition.

The authority and work procedures of notaries public in Singapore are based on these legal frameworks and are overseen by the Singapore Ministry of Law and legal associations.

Key Responsibilities of Notaries Public in Singapore

The authority of notaries public in Singapore is designed to meet international legal documentation needs. Their duties include:

1. Authenticating Documents

Notaries public act as independent witnesses for signing official documents, ensuring that signatories have been verified and understand the content of the document before signing. This is crucial for:

- International business agreements (e.g., partnership contracts, licensing agreements, investment agreements).
- Immigration-related documents (e.g., visa and citizenship applications).

2. Certifying Copies of Official Documents

One of the most common services provided by notaries public is the certification of copies of original documents. Frequently notarized documents include:

- Birth and marriage certificates for immigration purposes.
- Educational certificates for study or employment abroad.
- Financial documents such as bank statements or stock certificates for international transactions.

3. Administering Oaths and Declarations

Notaries public are authorized to administer oaths, affirmations, or statutory declarations, which are often needed for:

- International litigation, where sworn statements are required for court proceedings.
- Legal documents such as affidavits and statutory declarations used in foreign jurisdictions.

4. Issuing Notarial Certificates

Notaries public issue official certificates that include their signature and official seal. These certificates confer legal recognition on documents and are often required before documents undergo apostille or embassy legalization procedures.

5. **Facilitating Embassy Legalization**

In certain cases, documents authenticated by notaries public in Singapore require additional verification by embassies. Notaries often assist in ensuring that documents meet the necessary requirements for embassy legalization.

Specific Authorities of Notaries Public in Singapore

According to the *Notaries Public Act (Cap. 208)*, the primary authorities of notaries public in Singapore include:

1. **Acknowledgment of Signatures:**
Notaries public can witness and certify the signing of documents, ensuring that the signatory is legitimate and consents to the content of the document.
2. **Certification of Copies:**
Notaries public can verify that copies of documents are true reproductions of the originals.
3. **Drafting of Official Documents:**
Notaries public can assist in drafting certain legal documents, such as agreements, powers of attorney, or declarations requiring legal authentication.
4. **Authentication of International Documents:**
Notaries public have the authority to authenticate documents intended for use abroad, ensuring their international recognition.
5. **Taking Oaths and Declarations:**
Notaries public can witness and certify oaths or statutory declarations, which are often needed for legal proceedings or official statements.
6. **Certification of Wills:**
Notaries public can verify and certify wills, ensuring their legal validity.
7. **Legalization and Apostille Processing:**
Notaries public in Singapore also facilitate the legalization or apostille of documents for international use, in accordance with international conventions.

Regulation of Electronic Signatures in Indonesia and Singapore

A. Regulation of Electronic Signatures in Indonesia A notarial deed, as stipulated in Article 1 point 7 of Law Number 2 of 2014 concerning the Position of Notary, is an authentic deed made by or before a Notary in accordance with the form and procedure prescribed by this Law. Meanwhile, Article 1868 of the Indonesian Civil Code (KUHPerdata) asserts that an authentic deed is a document created in the form determined by the law by or before an authorized public official in the place where the deed is made. Article 1870 of the Civil Code states that an authentic deed has perfect evidentiary power regarding its contents

for the parties and their heirs, meaning that the deed can stand alone without requiring additional evidence.

The making of a contract in writing by affixing the signatures of the parties as a sign of agreement and consensus over the contents of the contract is called a deed. The regulation of signatures is found in the Civil Code in Book Four, Chapter II, on Proof with Writing, specifically Articles 1867-1894 of the Civil Code. Article 1875 of the Civil Code explains the validity of a signature as a privately signed document recognized as true by the person to whom it is presented or legally deemed acknowledged, thereby serving as full evidence akin to an authentic deed for the signatories, their heirs, and those acquiring rights from them. The provision of Article 1871 of the Civil Code applies to this document.

A signature affixed by an individual can transform a privately signed document into an authentic deed for the concerned parties. Regarding electronic signatures in relation to a notary's position, no explicit regulation currently exists. However, based on the above explanation, an electronic signature can be deemed valid if it complies with the provisions outlined in Article 11 of Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 on Electronic Information and Transactions and Article 53 of Government Regulation Number 71 of 2019 on the Implementation of Electronic Systems and Transactions, irrespective of an individual's profession or position.

Notaries must adapt to technological advancements, particularly as Article 15 paragraph (3) of Law Number 2 of 2014 concerning the Position of Notary states that notaries have other authorities regulated by legislation. According to this provision, "other authorities regulated by legislation" include certifying electronically conducted transactions (cyber notary), making waqf pledge deeds, and aircraft mortgage deeds.

Under Article 15 paragraph (3) of Law Number 2 of 2014, notaries have the authority to create electronic deeds based on cyber notary principles. Thus, the practical use of digital signatures in authentic deeds is foreseeable. An example of cyber notary implementation in Indonesia's legal system is found in Article 77 of Law Number 40 of 2007 on Limited Liability Companies, which allows general meetings of shareholders (GMS) to be conducted via teleconference. However, in practice, this provision conflicts with Law Number 2 of 2014 on the Position of Notary, as Article 1 point 7 stipulates that a notarial deed must be made by or before a notary to be considered an authentic deed with perfect evidentiary power.

Referring to Article 5 paragraph (4) letters a and b of Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 on Electronic Information and Transactions, notarial deeds signed electronically are not classified as electronic information and/or electronic documents. Consequently, electronically created notarial deeds do not hold legal validity as evidence under Law Number 19 of 2016. Given the limitations imposed by Article 5 paragraph

(4) letters a and b, electronically created authentic deeds by notaries are considered inadmissible as legal evidence, thereby compromising their authenticity.

Government Regulation Number 71 of 2019 on the Implementation of Electronic Systems and Transactions provides the following provisions:

- **Article 52:** Electronic signatures function as authentication and verification tools for: a. The identity of the signer b. The integrity and authenticity of electronic information
- **Article 55** establishes the security and reliability criteria for electronic signature data, ensuring:
 1. Unique identification of the signer
 2. Secure and confidential signature creation
 3. Protection of electronic signature data

Although digital signatures hold the same legal weight in court as conventional signatures for agreements made between parties (Article 11 of Law Number 19 of 2016), notarial deeds remain outside the scope of electronic documents. Thus, a notary can only legalize a digital signature (waarmerking) rather than create an authentic electronic deed.

For electronic deeds to be recognized as authentic, legislative amendments are required to integrate electronic notarial acts within Indonesia's legal framework.

B. Regulation of Electronic Signatures in Singapore Singapore has enacted the Electronic Transactions Act (ETA), effective since July 10, 1998, and was revised in 2010. Singapore pioneered the hybrid electronic signature model in the Third Wave (Third Generation) of e-commerce law. The ETA establishes the framework for electronic transactions and certification authority regulation, supporting Singapore's vision to become a hub for global electronic commerce.

Singapore's ETA was influenced by the 1996 UNCITRAL Model Law on Electronic Commerce. It adopts a hybrid approach that acknowledges both digital signatures and Public Key Infrastructure (PKI) as secure and reliable while not excluding other forms of electronic signatures. Digital signatures receive higher legal recognition under Singaporean law but do not have a monopoly.

The ETA incentivizes digital signatures in two key ways:

1. **Legal Preference:** Digital signatures using PKI have greater evidentiary value in court and carry a presumption of reliability and security, unlike other electronic signatures.
2. **Certification Authorities:** Although all types of electronic signatures are permitted, Singapore's law provides comprehensive regulations for

licensing and governing Certification Authorities, which verify the authenticity and integrity of electronically signed messages.

Key Provisions of the ETA:

- **Section 20:** Establishes secure digital signatures to ensure authenticity and prevent forgery.
- **Section 22:** Specifies risks associated with unreliable digital signatures, placing responsibility on the relying party.
- **Section 23:** Acknowledges that reliance on a digital signature necessitates reliance on a valid certificate for verification.
- **Section 24:** Prohibits the publication of invalid or revoked certificates to prevent fraudulent use.

CONCLUSION

In Indonesia, the authority of notaries is outlined in Article 15 of Law Number 2 of 2014, which grants them the power to create authentic deeds, certify electronic transactions, and legalize documents. However, notarial deeds signed electronically do not qualify as legal evidence under current Indonesian law, necessitating regulatory updates for full integration of electronic notarial acts.

In contrast, Singapore's Electronic Transactions Act provides a robust framework for electronic signatures, emphasizing secure digital signatures while maintaining a flexible approach. Digital signatures using PKI enjoy a presumption of reliability and legal security, making them preferable in electronic transactions. Singapore's regulatory clarity fosters a secure environment for e-commerce and cross-border digital transactions.

Thus, while Indonesia recognizes electronic signatures, its legal framework requires amendments to accommodate fully electronic notarial deeds, whereas Singapore has already established a comprehensive system for electronic transactions and digital signatures.

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