



# The Validity of QR-Code Digital Signature in Contract Towards The Evidence Agenda In Civil Court

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## ABSTRACT

This study delves into the validity of QR-Code Digital Signatures in contractual agreements within the framework of positive law in Indonesia, specifically examining their significance in the evidence agenda of Civil Courts. The objective is to assess the legal provisions surrounding QR-Code Digital Signatures and their potential role as substantial evidence in legal proceedings. By investigating the positive law perspective in Indonesia, the study aims to provide insights for legal practitioners and the public, emphasizing the strategic utilization of QR-Code Digital Signatures to enhance the authenticity of contracts and their admissibility as evidence in Civil Courts. Through this comprehensive exploration, the study aspires to offer a nuanced understanding of the legal standing of QR-Code Digital Signatures, providing valuable insights that contribute to the ongoing dialogue on the intersection of technology and law in the Indonesian context. This research uses normative juridical methods. The result of this research is the QR-Code Digital Signature in the contract is declared valid in positive law in Indonesia. Contracts with QR-Code Digital Signatures can be used as evidence if they meet the requirements in article 11 of the UU ITE. The existence of contracts with QR-Code Digital Signature as valid evidence in court still requires evidentiary arrangements in formal civil law to systematically regulate the process of proof in court so cannot violate the principle of openness of evidence at trial.

**Keyword:** Contract; Digital; Signature; Evidence; QR-Code

## ABSTRAK

Penelitian ini mempelajari keabsahan Tanda Tangan Digital QR-Code pada perjanjian kontrak dalam kerangka hukum positif di Indonesia, secara khusus mengkaji signifikansinya dalam agenda pembuktian di Pengadilan Negeri. Tujuannya adalah menilai ketentuan hukum seputar Tanda Tangan Digital QR-Code dan potensi perannya sebagai alat bukti yang substansial dalam proses hukum. Dengan menyelidiki perspektif hukum positif di Indonesia, penelitian ini bertujuan untuk memberikan wawasan bagi praktisi hukum dan masyarakat, dengan menekankan pemanfaatan strategis Tanda Tangan Digital QR-Code untuk meningkatkan keaslian kontrak dan penerimaannya sebagai alat bukti di Pengadilan. Melalui eksplorasi yang komprehensif, studi ini bertujuan menawarkan pemahaman yang bernuansa tentang kedudukan hukum Tanda Tangan Digital QR-Code, memberikan wawasan berharga yang berkontribusi pada dialog yang sedang berlangsung tentang persimpangan teknologi dan hukum dalam konteks Indonesia. Penelitian ini menggunakan metode yuridis normatif. Hasil penelitian ini bahwa Tanda Tangan Digital QR-Code dalam kontrak dinyatakan sah dalam hukum positif di Indonesia. Kontrak dengan Tanda Tangan Digital QR-Code, bisa dijadikan alat bukti bila memenuhi syarat pada pasal 11 UU ITE. Keberadaan kontrak dengan QR-Code Digital Signature sebagai alat bukti yang sah di pengadilan masih memerlukan pengaturan pembuktian dalam hukum perdata formil guna mengatur secara sistematis proses pembuktiannya di pengadilan, agar tidak menciderai asas keterbukaan pembuktian di persidangan.

**Keyword:** Kontrak; Digital; Tanda Tangan; Bukti; QR-Code



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## 1. Introduction

The advent of digital signatures, particularly QR-Code signatures, has triggered a profound global transformation in the legal landscape. This literature review navigates the existing scholarship surrounding the validity of QR-Code Digital signatures in contractual agreements within the Indonesian legal context with a specific focus on their implications for the evidence agenda in Civil Courts. This exploration is grounded in the perspective of positive law, delving into the legal frameworks that shape the recognition and acceptance of QR-Code Digital signatures in the Indonesian legal system.

The case of the Coronavirus Disease 2019 (COVID -19) pandemic in Indonesia based on JHU CSSE COVID-19 data reached 6.05 million cases with 156,000 deaths recorded as of May 11, 2022. Covid-19 first appeared at the end of 2019 in Wuhan, the capital city of Hubei Province, the People's Republic of China. This virus has rapidly spread worldwide. The increasing number of Covid-19 victims has received attention from the World Health Organization (WHO) until March 11, 2020, WHO declared the Coronavirus was a pandemic. With the WHO's determination, COVID -19 been designated as a Non-Natural National Disaster based on Presidential Decree No. 12 of 2020 concerning the determination of Non-Natural Disasters for the Spread of Covid-19. This was followed by the issuance of a Decree of the Head of the National Disaster Management Agency (BNPB) No. 13A of 2020 concerning the Extension of the Status of Certain Emergency Disasters due to Corona Virus Disease in Indonesia.

Then, the Decree of the Head of the BNPB was followed by the issuance of the Decree of the Minister of Health (Kepmenkes) No. HK.01.07/Menkes/239/2020 concerning the Determination of PSBB or Large-Scale Social Restrictions in the DKI Jakarta Province for the Acceleration of Handling Covid-19, the Government issued a PSBB statement by Article 59 of Law No. 6 of 2018 concerning Health Quarantine, as an effort to prevent a global pandemic. In addition to DKI Jakarta, the PSBB has also been implemented in several regions in Indonesia. The PSBB itself restricts certain activities of residents in an area infected with Covid-19 to limit the spread of Covid-19. After the PSBB, the Government implemented a transitional PSBB, Emergency PPKM, to the four-level PPKM to limit the movement and direct contact of the community, which is expected to prevent the spread of Covid-19.

The existence of the Social Restrictions Program implemented by the government forces all aspects of life to transform using an electronic-based system to limit direct contact between individuals. With the transformation in the field of technology, various social activities can be conducted without direct contact with individuals. This transformation was also carried out by the company, and many companies have started to switch to using electronic signatures, one of which is the Digital Signature Quick Response Code (QR-Code) on contracts. It will provide convenience for contracting parties during the pandemic, besides that it is also convenient for parties to access documents (contracts), time efficiency, and document authenticity is also guaranteed because it comes from entities that have proven their existence by having a certified digital identity.

A QR code digital signature is a digital signature created using asymmetric cryptography. This asymmetric cryptography is simply a process of locking data with a key called a private key, which can only be unlocked with its paired public key. The process of locking the documents' data is first encrypted with a private key into the ciphertext. Information attached to a digitally signed document (contract) is in the form of three pieces of electronic information: a digital signing certificate, public key, and ciphertext (W. Stallings: 2017, 89). In the encryption process, the document is converted into ciphertext by a public key. This ciphertext is compared with the previous ciphertext attached to the sent document. If the two ciphertexts are the same, then both are the same and there is no change in the content. This is an advantage of QR-Code digital signatures, which have the ability to prove the validity of a document (contract).

The use of signed document contracts with a QR-Code Digital signature as evidence of a civil trial is different from the evidence stipulated in the Civil Code. Thus, in its development, evidence is not limited to those regulated in Article 1866 of the Civil Code. As evidence in Article 1866 of the Civil Code has the power of proof, other evidence outside that provision also needs to have the power of proof so that it is valid if submitted as evidence in a civil court. Thus, the level of authenticity must be proven in court.

The benefits of this research are theoretically expected to contribute to the development of civil law science, especially in determining the validity of the QR-Code Digital signature on contracts in positive law

in Indonesia and the provisions of the QR-Code Digital signature, which can be used as evidence in the Civil Court. In practical terms, the results of this study are expected to contribute in the form of input so that people can wisely use QR-Code digital signatures in contracts. In addition, the authenticity of contracts signed by the contracting parties provides perfect evidence.

The novelty of this research lies in the discussion of the QR-Code Digital Signature as a breakthrough implemented by the company in making contracts, as it needs to be studied further regarding its validity according to Indonesian positive law and if it is used as evidence in a civil court. Thus, through this discussion, the public, as legal subjects, is expected to wisely use QR-Code Digital signatures in contracts as a technological advancement so that contracts with QR-Code Digital signatures can be used as perfect evidence when a dispute occurs.

This journal will discuss the validity of the QR-Code Digital Signature on contracts in positive law in Indonesia and whether contracts with QR-Code digital signatures can be used as evidence in civil courts. This is intended to educate the public so that they can determine the validity of the QR-Code Digital Signature in agreements in positive law in Indonesia, and the provisions of the QR-Code Digital signature, which can be used as evidence in the Civil Court. This includes efforts to protect the public from taking unwise action so that they can harm themselves as legal subjects when entering engagement.

## 2. Method

In conducting this research, researchers used a type of Qualitative Research, which is data analysis derived from data netted from the data collection process, then inventoried with related regulations. Then concept discovery and systematization of concepts are carried out. And interpretation is carried out, Normative juridical research was conducted. The source of data used in this study was secondary data obtained through a literature study. By analyzing the problems in this research with a legal principles approach along with related laws and regulations as the primary legal source, namely the Civil Code, Law Number 19 of 2016 concerning amendments to Law Number 11 of 2008 concerning Information and Electronic Transactions (UU ITE), and secondary legal sources in the form of books, journals, and other relevant literature.

## 3. Result and Discussion

### 3.1. The validity of the QR-Code Digital Signature on contracts in positive law in Indonesia

An Electronic Signature (e-signature) is defined as a signature consisting of Electronic Information that is attached, associated, or related to other Electronic Information, which in this case is used as an authentication and verification tool. Law Number 19 of 2016 concerning amendments to Law Number 11 of 2008 concerning Information and Electronic Transactions (UU ITE). QR-Code Digital signature creation data is a personal code, cryptographic code, biometric code, and/or code generated by converting a manual (conventional) signature into an Electronic Signature, including other codes, as a result of the development of information technology.

Creating a QR-Code Digital signature is a detailed process that begins with the use of public-key cryptography to generate electronic signatures involving both private and public keys. The tools needed for this process include the Java SE Runtime Environment, a P12 file for self-signed certificate creation, and JSigPDF for digital signature applications. The process involves setting up an application structure with various components, configuring CodeIgniter, and creating a controller file in the PHP to manage PDF documents. This is followed by the creation of a view file and an execution stage, in which the digital signature file is uploaded and the QR-Code is viewed. The final stage involves testing the signed PDF using VeryDS. Additionally, the process entails encrypting and compressing basic data for QR-Code generation, converting document content into hash code for digital signatures, and merging these with the printed document. Validation involves comparing hash codes from documents and digital signatures to verify the authenticity.<sup>1</sup>

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<sup>1</sup> Alfikri, "Tutorial Membuat Tanda Tangan Digital/Elektronik (Digital Signatur/TTE) Menggunakan Barcode Untuk Cek Keaslian File Dengan CodeIgniter 3 Dan JsignPdf," Klimikcode, diakses tanggal 11 Mei 14.59 <<https://klinikcode.com/tutorial/tutorial-membuat-tanda-tangan-digital-elektronik-digital-signatur-tte-menggunakan-barcode-untuk-cek-keaslian-file-dengan-codeigniter-3-dan-jsignpdf>>

In the process of validating printed documents, there is one step that must be done, namely scanning the QR-Code on the document, then decompressing the scanned document data, performing a description of the data with the public key, then obtaining the data in the form of the contents of the document, and comparing the two data manually if they are the same means the document is original, and if different means the document has been changed (falsified).<sup>2</sup>

According to Article 1320 of the Civil Code, there are conditions for the validity of the agreement, which include the parties agreeing to bind themselves to the agreement, the parties being legally competent, the agreement being made regarding a certain matter and being a lawful cause.<sup>3</sup> In this study, the main essence of the validity of an agreement or contract is the agreement of the parties, where it is not regulated that the agreement of the parties must sign an agreement with a wet signature (conventional). Thus, it can be concluded that it is legal before the law if a contract agreed by the parties is affixed with a digital signature in the form of a QR-Code digital signature as a form of agreement between the parties.

This is also supported by other laws and regulations, namely, Article 15 of Law Number 8 of 1997 concerning Company Documents, where it is stated that company documents are contained in microfilm or other media as regulated in Article 12 paragraph (1) and/or know that the printed document is legal as, and if needed, the printed document can be legalized.<sup>4</sup>

Article 13 paragraph (1) of the ITE Law stipulates that everyone has the right to use PSrE services to support the creation of a QR code digital signature as an e-signature or a digital signature. PSrE is a legal entity that deserves to be recognized and has the authority to provide and audit the E-Certificate (Electronic Certificate), namely, the E-Signature and the identity of the parties' legal subject status. As a QR-Code Digital Signature certified signature, one must meet the following requirements: meet the legal validity and legal consequences of the signature, which is regulated in Article 59, paragraph (3) PP PSTe, Using electronic certificates made by Indonesian electronic certification providers, and make use of a special certified electronic signature (QR-Code Digital Signature) tool.

The validity of the QR-Code Digital Signature as a type of digital signature/electronic signature in Indonesian positive law is clarified in the second paragraph of the Elucidation of Article 11, Paragraph (1) of the ITE Law. Electronic Signatures have the same position as signatures made manually (conventional signatures), and have both legal force and legal consequences. The requirements referred to in this article are the minimum requirements specified in laws and regulations that must be met. These provisions have provided wide opportunities for anyone to develop methods, techniques, or processes for creating Electronic Signatures

### 3.2. *Contracts with QR-Code Digital Signatures can be used as evidence in civil courts.*

Proof is a court process that has a very important function in helping judges make decisions. article 163 HIR or Article 283 RBg and article 1865 of the Civil Code states that if one party has stated or denied an event, then in court that party must prove the event or prove his rebuttal. The evidence regulated in Article 1866 of the Civil Code is written evidence with witnesses, suspicions, confessions, and oaths.<sup>5</sup> In addition, there is other evidence to obtain definite truth in a disputed event, as stipulated in Pasal 153 HIR/180 RBg, which is a local examination, and in Article 154 HIR/181 RBg, namely, expert testimony.

Along with the rapid development of information and communication technology during the Covid-19 pandemic, it also contributes to developments in the scope of law enforcement. Thus, on the evidentiary agenda, the introduction of electronic evidence, such as electronic documents, electronic information, microfilms containing company documents, voice recordings, facsimiles, CCTV recordings, direct messages from SMS or other messaging applications, and digital signatures, such as QR-Code digital signatures affixed in the contract. QR-Code Digital Signature is different from conventional signatures, as we know so far, which use a different method by using advanced technology to mark a document. Thus, documents or data can not

<sup>2</sup> Fatich Fazlur Rochman , Indra Kharisma Raharjana , Taufik, '*Implementation of QR Code and Digital Signature to Determine the Validity of KRS and KHS Documents*', Scientific Journal of Informatics Vol. 4, No. 1, p. 9-11 (2017)

<sup>3</sup> Subekti dan R. Tjitrosudibio, Kitab Undang-undang Hukum Perdata, Jakarta: Balai Pustaka, 2017, p. 371

<sup>4</sup> Article 15 of Law No. 8 of 1997 on Company Documents

<sup>5</sup> Subekti dan R. Tjitrosudibio, Op. Cit, p. 521

only identify the sender, but also ensure that the document is still intact and its originality is maintained so that there are no changes during the transmission process as a security system that uses a public key cryptography system.<sup>6</sup>

Contracts with QR-Code Digital signatures can be considered as evidence, as stipulated in Articles 5 and 6 of Law Number 11 of 2008 concerning Information and Electronic Transactions. Article 5 of the ITE Law stipulates that Electronic Documents or Electronic Information and their printouts are valid legal evidence which is an extension of legal evidence by the applicable procedural law in Indonesia, so that they are considered legally valid Electronic Documents and/or Information Electronics must use Electronic Systems following the provisions of the ITE Law, except for letters or documents that have other provisions as regulated by law.

The meaning of electronic information and electronic documents in the article above is based on Article 1 point 3 of Law no. 11 of 2008 concerning Information and Electronic Transactions, Electronic Information is one or a collection of electronic data, including writing, sound, or images, maps, designs, photos or the like, letters, signs, numbers, access codes, symbols, or perforations that have meaning or significance. This can be understood by people who are able to understand it, which has been processed by a certain mechanism, so that it has meaning. The meaning of Electronic Documents, based on Article 1 point 4 of Law No. 11 of 2008 (UU ITE), is electronic information that is created, forwarded, sent, received, or stored in digital, analog, digital, electromagnetic, optical, or similar forms, which can be seen, displayed, and/or heard through electronic systems, including but not limited to writing, sound, images, maps, designs, photographs or the like, letters, signs, numbers, access codes, symbols, or perforations that can be understood by people who are able to understand them.

It is further regulated in Article 6 of the ITE Law, where it is stated that, provided that information must be written or in its original form, Electronic Information and/or Electronic Documents are considered valid as long as the information contained therein can be accessed, displayed, guaranteed its integrity, and can explain circumstances so that it can be accounted for. Therefore, based on the articles above, a contract affixed with a QR-Code digital signature is valid and perfect evidence in the eyes of the law. Therefore, the contract must use an appropriate electronic system as stipulated in the ITE Law.

There are various methods for obtaining sufficient evidence to show that an electronic signature is from a person. The goal is to gather sufficient evidence to ensure that the person sending the signature is the person they claim to be. Efforts can be made using various mechanisms to obtain information from the following combinations (UCL, *Digital Signatures*, (Institute of Education, 2017): proof with knowledge, proof of ownership, and proof with characteristics.

When combined, authentication techniques provide a higher level of authentication than single methods. In most cases, the method by which a person attempts to authenticate themselves is a combination of hardware and software. Software components can retrieve and verify passwords, and tokens such as smart cards can be placed in slots on a computer. Identification can be performed using biometric measurement.

In the ITE Law itself, for a contract with a QR-Code digital signature to be declared valid evidence, it is necessary to fulfill all six conditions stipulated in Article 11 of the ITE Law so that the QR-Code digital signature is maintained and its authenticity is maintained. In Article 11 of the ITE Law, electronic signatures, including in this case a QR-Code Digital signature, can have legal force and legal consequences if they meet several conditions, including electronic signature creation data (QR-Code Digital Signature), is only related to the Signer. In the electronic signing process, the Electronic Signature creation data (QR code digital signature) is only in the power of the signer. It can be seen that all changes related to electronic signatures (QR-Code Digital signature) after signing, and all changes to the Electronic Information related to the Electronic Signature (QR-Code Digital Signature) can be known after signing, have a means of identifying the signatories, and have a way to show that approval has been given by the signatories to the related Electronic Information.

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<sup>6</sup> Arrianto Mukti Wibowo, Hendra Yuristiawan, Muhammad Aulia, Erwin Sundoro, L., and Patricia Gaby K., *Kerangka Hukum Digital Signature Dalam Electronic Commerce*. Bogor, Jawa Barat, 1999, p. 4

Contracts with QR-Code digital signatures as evidence with electronic signatures and/or in the form of electronic documents are very vulnerable to being changed, deleted, or cloned, which can result in contracts with QR-Code digital signatures having doubts about their authenticity as evidence or can be said to have no evidentiary power.

Electronic Documents or Electronic Information and/or printouts, which include the use of a QR-Code digital signature in a contract as evidence in court, have been regulated in the ITE Law and other special laws. However, it cannot be said that Indonesia's formal civil law has regulated contracts with digital signatures as evidence in the evidentiary agenda in civil courts. As the above law is within the scope of material law (which also includes formal civil law), it does not specifically regulate formal civil law.

Caprioli's study of digital evidence and electronic signatures in the context of a consumer credit contract in France provides another comparative angle. The French case highlights the significance of uncontested electronic signatures in legal proceedings. In contrast, Indonesian studies have focused on promoting the use of QR-Code Digital signatures and their admissibility in courts, irrespective of potential challenges. Both studies underscore the importance of electronic signatures in legal contexts, emphasizing their role in establishing the authenticity of documents and influencing legal actions.

Dolzich's study of electronic signatures and digital evidence in the Russian Federation provides a valuable comparative perspective. In contrast to Indonesia, where the study highlighted the positive legal implications of QR-Code Digital Signatures, Dolzich focused on the historical development of electronic evidence and signatures in Russian 'arbitrazh' courts. The Russian case demonstrates a shift in the trend initiated by the courts in the early 1990s, leading to the acceptance of electronic evidence through the enactment of the Arbitrazh Procedural Code in 2002. While the contexts differ, both studies share the common theme of adapting legal frameworks to accommodate digital advancements.

In conclusion, this study on the validity of QR-Code Digital signatures in Indonesian positive law contributes to the growing body of literature exploring the legal implications of digital advancements. By comparing the findings with studies from Russia and France, the discussion sheds light on the diverse global landscape of electronic signatures and digital evidence. The insights provided aimed to inform legal subjects and practitioners about the evolving nature of digital signatures, encouraging thoughtful adoption in contractual practices within the bounds of positive law.

The lack of Documents with electronic signatures or digital signatures in this case QR-Code Digital Signatures as evidence in court, still require formal civil law to achieve legal certainty. Because formal civil law will bind the judge and the parties to the dispute, in this case, the QR-Code Digital signature can be expressly regulated as legal and perfect evidence in court and can then be regulated regarding the process as proof before the court. Because of this unusual evidence, QR-Code digital signatures on a contract require special skills to prove their authenticity. Thus, a formal civil law arrangement is needed as a proof procedure because, based on articles, 137 HIR and 163RBg stipulate that the opposing party can ask to show the evidence of the letter submitted to him by the opposing party. Therefore, to avoid conflict with the principle of openness of evidence in court, the provisions of Articles 137 HIR and 163RBg must also be applied to prove the authenticity of the QR-Code digital signature in the contract. In addition, the need for formal civil law that regulates e-signature or digital signature proof in this case, the QR-Code Digital signature in the contract, is intended to avoid fraud and indications of falsification of evidence during the evidentiary process in court, and to facilitate judges in resolving and deciding disputes. with a digital signature (QR code digital signature) as evidence. he benefits of Digital Signature (Digital Signature) QR Code as evidence in civil court is a digital signature (digital Signature) will cause electronic data sent through the open network to be guaranteed, some of these advantages include: 1. Authenticity; 2. Integrity; 3. Non-Repudiation; 4. Confidentiality. Digital Signature has unique properties for each signed document, because it is taken from the document itself and some changes to the document will produce a different digital signature.

However, regarding the lack of accommodation for e-signatures or digital signatures, in this case, the QR-Code Digital Signature in the formal juridical evidence cannot be the reason the judge rejects the case, does not examine and decide on an unclear pretext case submitted to him, or the absence of formal civil law governing it. Based on Article 10, paragraph (1) of Law Number 48 of 2009 concerning Judicial Power, the

Court may not refuse to examine and decide on a case that has been delegated to it, even if the reason is that the law is unclear or there is no law governing it. If there is no law, the judge must continue to accept the case, examine and decide on it, and make legal discoveries. Concerning legal findings by judges, judges still have to accept cases against contracts with e-signatures or digital signatures, in this case QR-Code Digital Signatures, because they can be equated with written evidence (letters/documents) as regulated in laws and regulations

#### 4. Conclusion

Based on this discussion, it can be concluded that the QR-Code digital signature in the contract can be declared valid under positive law in Indonesia. The QR-Code Digital Signature as a type of E-signature has been regulated in Article 1, paragraph (12) of Law no. 19 of 2016 concerning amendments to Law no. 11 of 2008 concerning Information and Electronic Transactions (UU ITE). Contracts with QR-Code Digital signatures also have legal force and legal consequences so that they can be used as evidence if they fulfill the requirements stipulated in Article 11 of Law Number 19 of 2016 concerning amendments to Law Number 11 of 2008 Information and Transactions Electronics (UU ITE). Even though it is legal in the eyes of the law, the existence of a contract with a QR-Code Digital signature as valid and perfect evidence in court still requires regulation of legal evidence in a formal juridical manner. As evidence that requires special expertise to prove its authenticity, formal civil law is needed to clearly and systematically regulate the process of proving it before the court so as not to injure the principle of openness of evidence in court.

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