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Electronic evidence in international sales contracts in Morocco: a comparative legal analysis and issues relating to cross-border recognition

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Abstract

This study analyses the legal regime governing electronic evidence in international sales contracts concluded between professionals in Morocco, in light of the domestic legal framework and its recent reception in case law. It highlights that Moroccan law recognises the probative equivalence between electronic and paper-based documents, subject to reliable identification of the signatory and a guarantee of the document's integrity. The analysis is supplemented by a focused review of Moroccan case law, which reveals a pragmatic approach based on the technical demonstration of the reliability of electronic evidence, irrespective of any requirement for a handwritten signature. Whilst this approach ensures effective recognition of electronic evidence within the domestic sphere, it remains limited when it comes to the cross-border recognition of foreign certificates and authentication procedures. A comparison with international standards highlights partial functional alignment, but underscores the absence of comparable legal mechanisms for interoperability. Finally, the article proposes avenues for harmonisation based on the conditional recognition of foreign electronic certificates offering equivalent functional guarantees, in order to strengthen legal certainty and the predictability of international sales contracts involving Moroccan operators.

Keywords: Electronic evidence; international sales contract; electronic signature; legal certainty; cross-border recognition

1. Introduction

Electronic evidence in international sales contracts concluded between professionals raises, in the Moroccan context, fundamental questions regarding its normative recognition and its legal effectiveness. Law No. 53-05 on the electronic exchange of legal data established a general framework recognising the probative value of electronic documents, subject to reliable identification of their author and a guarantee of the integrity of their content, in accordance with Article 417-1 of the Code of Obligations and Contracts. This regulatory framework was reinforced by Law No. 43-20 on trust services for electronic transactions, which imposes stricter conditions for the issuance of electronic certificates and imposes increased obligations on accredited service providers regarding identity verification and the retention of data necessary to prevent subsequent disputes. These texts now constitute the legal basis for the admissibility of electronic evidence under Moroccan law, incorporating the functional requirements traditionally attached to written form in contractual relations.

The central question, however, lies in the ability of this domestic legal framework to meet the specific requirements of international sales contracts. The United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce prohibits any legal discrimination based on the electronic form of a document and recognises the full legal validity of data messages provided they fulfil the essential functions of a written document, in particular the identification of the author and the preservation of the integrity of the content. Similarly, the eIDAS Regulation establishes, within the European Union, a mechanism for the mutual recognition of qualified electronic signatures, thereby strengthening the legal certainty of cross-border transactions based on standardised authentication procedures.

Whilst Moroccan law recognises these requirements domestically, it does not, as things stand, provide for procedural mechanisms ensuring automatic or conditional cross-border recognition of foreign electronic certificates. Recent case law from the Moroccan Court of Cassation illustrates this situation. In a judgment handed down in 2023, the court accepted the full probative value of an electronic exchange lacking a handwritten signature, provided that the technical authenticity of the message and its compliance with contractual obligations were established in accordance with domestic criteria. This approach reflects a pragmatic stance, based on concrete evidence of the reliability of the electronic process used, without, however, guaranteeing legal equivalence in a cross-border context.

The legal framework for electronic signatures plays a decisive role in this regard. Moroccan law establishes a hierarchy of authentication methods, culminating in the qualified electronic signature, which is based on a certificate issued by an accredited trust service provider and guarantees an exclusive link between the signatory and the document, as well as the immutability of the content. Whilst this framework is conceptually similar to the model adopted by the eIDAS Regulation, it remains confined to a strictly national scope, in the absence of international harmonisation regarding issuing authorities and the formal conditions for the recognition of certificates.

In this context, the recognition of electronic evidence in international sales contracts concluded between professionals remains largely dependent on a case-by-case assessment by the court, based on the technical characteristics specific to each method of evidence. This results in potential legal uncertainty when the contract involves a counterparty established abroad and relies on authentication mechanisms not approved in Morocco.

This study therefore seeks to answer the following question: to what extent does Moroccan positive law ensure full statutory and case-law recognition of electronic evidence in international sales contracts concluded between professionals, and to what extent does this recognition remain compatible with applicable international standards regarding legal certainty and contractual predictability? This issue is crucial for economic operators, given that confidence in digital transactions depends as much on the clarity of the standards as on their effectiveness in litigation

2. Legal framework for electronic evidence in moroccan law.

The legal regime governing electronic evidence in Moroccan law forms part of a process of adaptation to the digital transformation of commercial transactions. It is based on a set of standards centred on the principle of functional equivalence between electronic documents and paper-based documents, as enshrined in the Code of Obligations and Contracts and the applicable special laws. An analysis of this framework requires an examination, on the one hand, of the conceptual foundations of electronic evidence and, on the other, of the legal mechanisms that determine its reliability and probative value in contractual relations, particularly in international sales contracts concluded between professionals.

2.1 legal foundations and the concept of electronic evidence:

In international sales contracts concluded between businesses and governed by Moroccan law, electronic evidence falls within a legal framework based on the principle of functional equivalence between documents in electronic form and those in paper form. This recognition is based on the idea that the probative value of a document does not depend on its physical medium, but on its ability to fulfil the essential functions traditionally associated with a written document, namely the identification of its author and the guarantee of the integrity of its content, in accordance with Article 417-1 of the Code of Obligations and Contracts, as amended by Law No. 53-05 on the electronic exchange of legal data (2007). The development of e-commerce has led the Moroccan legislature to adapt the traditional rules of contract law in order to regulate the formation and proof of electronic contracts, by gradually integrating digital technologies into the legal framework (LexisNexis Morocco, 'Electronic Contract', 2021).

This approach is consistent with the principle of functional equivalence, according to which the legal value of a document does not depend on its physical medium, but on its ability to fulfil the essential functions of a written document, in

particular the identification of its author and the guarantee of the integrity of its content (Jabir & Ou-Yacoub, 2022).

Moroccan law has thus undergone a significant conceptual shift, moving away from a formalistic conception of the written word in favour of a functional approach, compatible with the requirements of dematerialised commercial transactions. From this perspective, electronic evidence does not constitute a separate category of evidence, but rather a form of written expression capable of producing the same legal effects as traditional written documents, subject to compliance with specific reliability conditions defined by the legislature.

This approach is consistent, in principle, with that enshrined in leading international instruments, in particular the United Nations Commission on International Trade Law's Model Law on Electronic Commerce. This prohibits any legal discrimination based on the electronic form of a document and recognises the full legal validity of data messages provided they fulfil the functions expected of a written document, notably the identification of the author and the preservation of the integrity of the content (UNCITRAL, Model Law on Electronic Commerce, 1996). However, Moroccan law retains a marked degree of regulatory autonomy, providing precise guidelines on the methods for identifying the author and protecting the integrity of the document within its domestic legal system.

In this context, the electronic signature occupies a central place in the evidentiary framework. It is understood not as a mere formality, but as a technical and legal process designed to ensure the link between the document and its author and to guarantee that the content of the document has not been altered since its creation or issuance. Law No. 43-20 on trust services for electronic transactions thus establishes a hierarchy of authentication procedures based on their level of reliability, and establishes a specific regime for qualified electronic signatures, based on certificates issued by accredited trust service providers (Law No. 43-20 on trust services for electronic transactions, 2020).

2.2. Evidentiary functions of electronic documents

The evidential function of electronic documents under Moroccan law is based on a three-pronged framework comprising the reliable identification of the author, the integrity of the electronic document and evidential equivalence with paper-based documents. In accordance with Article 417-1 of the Code of Obligations and Contracts, electronic documents are admissible as full evidence provided, they are created under conditions that allow for the

reliable identification of their author and guarantee the integrity of their content (Article 417-1 of the Code of Obligations and Contracts, as amended by Law No. 53-05 on the electronic exchange of legal data, 2007). These requirements directly determine the probative value of the electronic document and determine its admissibility in court.

In international sales contracts concluded between professionals, this evidential function is of particular importance, given that the electronic document frequently constitutes the primary medium for the formation of the contract, the performance of contractual obligations or pre-contractual exchanges. The party relying on an electronic document must therefore be able to demonstrate that the document is attributable to its author and that it has not undergone any alteration likely to affect its legal significance. Law No. 53-05 expressly enshrines this principle, by admitting electronic evidence whilst making its probative value contingent upon the provision of sufficient guarantees of reliability (Law No. 53-05 on the electronic exchange of legal data, 2007).

Law No. 43-20 reinforces this framework by establishing a structured regime of trust services, designed to secure authentication processes and limit the risks of subsequent challenges. The qualified electronic signature, based on a qualified certificate issued by an accredited service provider, thus benefits from a strengthened presumption of authenticity and integrity, due to the verification carried out on the signatory's identity and on the signature creation device (Law No. 43-20 on trust services for electronic transactions, 2020). However, this presumption operates essentially within the scope of the Moroccan legal system and is not accompanied, under current positive law, by a general mechanism for the cross-border recognition of foreign electronic certificates.

In terms of case law, this functional approach to electronic evidence has been confirmed on several occasions by the Moroccan Court of Cassation. In a judgment handed down in 2023, the court recognised the probative value of an electronic document lacking a handwritten signature provided that the technical authenticity of the message and the integrity of its content were established in accordance with domestic requirements (Court of Cassation, Commercial Chamber, 29 November 2023, judgment no. 1/613, case no. 2023/1/3/819). Similarly, a judgment handed down in 2013 recognised the admissibility of emails produced as primary evidence, subject to the production of a technical report certifying their origin and integrity in accordance with the criteria defined by Moroccan law (Court of Cassation, Commercial Chamber, 6 June 2013, judgment no. 250, case no. 2012/1/3/894). These decisions illustrate a pragmatic approach, based on concrete

demonstration of reliability rather than on the requirement of traditional formalities.

2.3. Legal basis in the code of obligations and contracts

The Code of Obligations and Contracts, as amended by Law No. 53-05 on the electronic exchange of legal data (2007), constitutes the legal basis for the equivalence of probative value between electronic documents and paper-based documents. Article 417-1 expressly enshrines this principle by providing that electronic documents have the same legal effect as traditional documents, subject to the provision of sufficient safeguards regarding the identification of their author and the integrity of their content. This provision reflects a significant development in Moroccan evidence law, enshrining the integration of digital technologies into the field of evidence on a functional basis.

The judicial interpretation of this provision highlights a consistent focus on preserving legal certainty, whilst maintaining high standards regarding the reliability of the evidence produced. Moroccan courts regularly refer to the criteria laid down by the legislature to assess the probative value of electronic documents, combining an analysis of the technical processes used with an examination of the specific circumstances of each case. This approach ensures consistency between statutory requirements and their application in litigation, whilst revealing the limitations of the system when electronic evidence is used in a cross-border context.

Indeed, the Code of Obligations and Contracts contains no specific provision regarding the recognition of authentication procedures or electronic certificates issued by foreign authorities. This regulatory gap grants the judge particularly broad discretion, which may result in stricter evidential requirements in international sales contracts involving contracting parties established outside Moroccan territory.

2.4. Regulatory framework under laws no. 53-05 and no. 43-20

Law No. 53-05 on the electronic exchange of legal data (2007) and Law No. 43-20 on trust services for electronic transactions (2020) form a complementary regulatory framework designed to govern electronic evidence and secure digital transactions. The former establishes the principle of admissibility and probative equivalence of electronic documents, whilst the latter sets out the framework for trust services and electronic signatures, in particular qualified electronic signatures. Decree No. 2-08-518, issued to implement Law No. 53-05 (2009), specifies, in this regard, certain technical and

procedural arrangements relating to data integrity and the use of electronic signature processes.

This regulatory framework reflects the Moroccan legislature's desire to establish a trustworthy environment conducive to the development of electronic commerce, particularly in contractual relations between businesses. However, this framework remains essentially based on a national system of supervision and accreditation. Unlike Regulation (EU) No 910/2014 of 23 July 2014 on electronic identification and trust services (eIDAS), which establishes within the European Union a structured mechanism for the mutual recognition of qualified electronic signatures, Moroccan law does not, as things stand, provide for a general mechanism for the cross-border recognition of foreign electronic certificates.

In international sales contracts, this lack of a recognition mechanism is likely to result in a heavier burden of proof for the party relying on an electronic document drawn up abroad. Even where the process used offers high technical safeguards, it remains necessary to demonstrate its functional equivalence with regard to the requirements of Moroccan law. This situation highlights a central issue concerning electronic evidence in a transnational context, namely the tension between domestic legal recognition and probative effectiveness across borders.

3. Judicial recognition of electronic evidence

Beyond the regulatory framework, the probative effectiveness of electronic evidence under Moroccan law depends largely on its interpretation by the courts. In this regard, the case law of the Court of Cassation plays a decisive role in consolidating the probative equivalence between electronic and traditional written documents. An analysis of the decisions handed down in this area highlights a pragmatic approach, based on a concrete assessment of the reliability of the technical processes used, whilst revealing the limits of this recognition in a transnational context.

3.1. The judgment of the court of cassation of 6 june 2013: functional recognition of the probative value of electronic correspondence

The judgment handed down by the Moroccan Court of Cassation, Commercial Chamber, on 6 June 2013 (judgment no. 250, case no. 2012/1/3/894) constitutes a landmark decision in the field of electronic evidence. It confirms that electronic correspondence may have probative effect under Moroccan law, irrespective of any requirement for a handwritten signature, provided that the conditions of reliability laid down by positive law are met.

In this case, the dispute concerned contractual exchanges conducted exclusively via email, which were relied upon to establish the existence and amount of commercial obligations. The claimant contested their probative value on the grounds of the absence of a handwritten signature and a stamp, arguing that such correspondence could not be treated as a written document within the meaning of the traditional rules of written evidence.

The Court rejected this argument by adopting a functional interpretation of Article 417 of the Code of Obligations and Contracts, as amended by Law No. 53-05. It held that, whilst a handwritten signature remains the traditional means of expressing consent under Article 426 of the same Code, electronic documents follow a distinct logic: the legislature recognises that the identification of the signatory may result from any process that reliably links the document to its author and expresses their acceptance of the obligations arising therefrom.

The scope of this judgment is twofold. On the one hand, it marks the abandonment of a strictly formalistic conception of written evidence in favour of an approach based on the technical reliability of the process used. On the other hand, it confirms that the probative value of an electronic document does not depend on its reproduction of the physical forms of a paper document, but on its ability to fulfil the essential legal functions of a written document, namely identification and integrity. Although developed within a domestic framework, this approach lays the jurisprudential foundations for the admissibility of electronic evidence in commercial relations that may have an international dimension.

However, the judgment remains confined to a strictly national framework. The Court assesses the reliability of the evidence against domestic criteria, without explicitly considering the recognition of foreign authentication procedures, even where they would offer comparable technical safeguards. This limitation appears decisive for the analysis of electronic evidence in international sales contracts.

This development in case law forms part of a broader trend towards recognising electronic documents as an autonomous form of evidence, based on a concrete assessment of the reliability of technical processes rather than on compliance with traditional material forms (Jabir & Ou-Yacoub, 2022).

3.2. The judgment of the Court of Cassation of 29 November 2023: consolidation of probative equivalence and confirmation of a domestic approach

The judgment handed down by the Court of Cassation, Commercial Division, on 29 November 2023 (judgment no. 1/613, case no. 2023/1/3/819) is consistent with previous case law, whilst reinforcing the effectiveness of electronic evidence in commercial relations. It confirms that electronic communications, including in particular emails and communications via digital applications, may be admitted as evidence provided that the conditions set out in Article 417-1 of the Civil Code are met.

In this case, the Court validated the use of electronic correspondence to establish contractual facts, holding that electronic evidence is admissible provided that the judge is able to verify the origin of the messages and the integrity of their content. The decision illustrates a pragmatic approach to assessment, based on a concrete examination of the technical evidence produced, rather than on compliance with a predetermined formalism.

The 2023 judgment thus consolidates the equivalence in evidential value between electronic and paper-based documents, in line with developments in Moroccan positive law stemming from Law No. 53-05 on the electronic exchange of legal data (2007) and Law No. 43-20 on trust services for electronic transactions (2020). In terms of principles, it aligns with the functional approach enshrined in the UNCITRAL Model Law on Electronic Commerce, which prohibits any discrimination based on the electronic form of the document and prioritises an analysis of the reliability of the process used (UNCITRAL, Model Law on Electronic Commerce, 1996).

Nevertheless, the scope of this decision remains confined to the domestic legal order. The Court makes no distinction based on whether the authentication process is of domestic or foreign origin, without, however, establishing a mechanism for the automatic recognition of foreign certificates or devices. Unlike the model established by Regulation (EU) No 910/2014 of 23 July 2014 (eIDAS), which is based on the mutual recognition of qualified electronic signatures within the European Union, the assessment of electronic evidence remains, under Moroccan law, closely tied to the domestic legal framework.

As a result, whilst Moroccan case law now ensures effective recognition of electronic evidence within the national jurisdiction, such recognition remains, in international sales contracts, subject to proof that the process used complies with the requirements of Moroccan law. This approach, based on

case-by-case judicial review, helps to strengthen domestic legal certainty whilst leaving uncertainty regarding the cross-border recognition of electronic authentication mechanisms.

4. Legal certainty and evidentiary reliability in international sales contracts

The recognition of electronic evidence is not limited to a question of legal validity, but raises key issues regarding legal certainty and contractual predictability. In the context of international sales contracts, the reliability of authentication and integrity procedures directly determines the probative value of electronic documents and, consequently, the stability of commercial relations. An analysis of these criteria helps to identify the practical implications of the Moroccan legal framework for economic operators, as well as the risks likely to affect the security of transactions in a cross-border context.

4.1. Reliability criteria for electronic evidence and effects on economic operators

The legal certainty attached to electronic evidence in international sales contracts concluded between professionals depends directly on the reliability criteria adopted by the applicable law. Under Moroccan law, these criteria are based primarily on the reliable identification of the signatory, the guarantee of the integrity of the electronic document and probative equivalence with a paper-based document, as set out in Article 417-1 of the Code of Obligations and Contracts, as amended by Law No. 53-05 on the electronic exchange of legal data (2007), as well as Law No. 43-20 on trust services for electronic transactions (2020).

The requirement for the signatory to be identified is intended to establish a definite link between the electronic document and the person to whom it is attributed. In this regard, Moroccan law does not require the reproduction of a handwritten signature, but does require that the method used enables the author of the document to be reliably identified and to express their consent to the obligations arising therefrom. In the practice of electronic transactions, this requirement translates into the use of authentication mechanisms of varying degrees of sophistication, the reliability of which directly determines the probative value of the document produced (Law No. 43-20 on trust services for electronic transactions, 2020).

The electronic signature is a central mechanism for securing digital exchanges, in that it ensures both the identification of the signatory, the validation of their commitment and the traceability of transactions, thereby facilitating the resolution of disputes in the event of a challenge (Abrighach, 2023).

The guarantee of document integrity constitutes the second pillar of evidential reliability. It presupposes that the content of the electronic document has not been altered since its creation or issuance, or, at the very least, that any subsequent modification is detectable. The case law of the Court of Cassation confirms that this requirement is subject to effective review by the judge, who assesses the probative value of the electronic document in light of the technical evidence produced to attest to the immutability of the content (Court of Cassation, Commercial Chamber, 6 June 2013, No. 250; Court of Cassation, Commercial Chamber, 29 November 2023, No. 1/613).

The evidential reliability of the electronic document rests on the technical system's ability to guarantee the traceability, identification and preservation of the document under conditions ensuring its integrity and non-alteration (Jabir & Ou-Yacoub, 2022).

These criteria have direct implications for economic operators involved in international sales contracts. Where electronic documents are created using processes recognised under Moroccan law, legal certainty is enhanced: the party relying on them benefits from clear evidential equivalence with paper-based documents. Conversely, where evidence relies on foreign authentication mechanisms, even if technically reliable, the operator must demonstrate their functional compliance with the requirements of Moroccan law, which may increase the burden of proof and raise the costs of ensuring the legal security of transactions.

The digitisation of commercial transactions, whilst enhancing the efficiency of trade, introduces new legal risks linked in particular to cybersecurity, digital fraud and the reliability of electronic evidence. These risks directly affect the legal certainty of contractual relationships and require a strengthened regulatory framework to ensure the confidence of economic actors (Yahya Hamidou, 2025).

4.2. Legal risks and the erosion of contractual certainty in a transnational context

An analysis of the Moroccan framework for electronic evidence highlights several risks that could undermine the legal certainty of international sales contracts. The main risk stems from the absence of a regulatory mechanism for the automatic or conditional cross-border recognition of foreign electronic signature and authentication processes. Whilst Law No. 53-05 on the electronic exchange of legal data (2007) recognises the probative equivalence of electronic documents, this equivalence is assessed exclusively in accordance with the internal criteria defined by the Moroccan legislature.

The case law analysed illustrates this limitation in concrete terms. In judgments handed down in 2013 and 2023, the Court of Cassation recognised the probative value of electronic correspondence provided that its origin and integrity were established in accordance with the requirements of Moroccan law. However, these decisions do not establish any principle recognising foreign authentication mechanisms as such, leaving the judge with broad discretion when an international sales contract relies on electronic evidence produced outside the national territory (Court of Cassation, Commercial Chamber, 6 June 2013, No. 250; Court of Cassation, Commercial Chamber, 29 November 2023, No. 1/613).

This situation is likely to create legal uncertainty for foreign economic operators entering into contracts with Moroccan partners. The digitisation of commercial transactions, whilst enhancing the efficiency of trade, introduces new legal risks linked in particular to cybersecurity, digital fraud and the reliability of electronic evidence. These risks directly affect the legal certainty of contractual relationships and require a strengthened regulatory framework to ensure the confidence of economic actors (Yahaya Hamidou, 2025).

In practice, an electronic document that is perfectly valid and reliable within its original legal system may have its probative value challenged before Moroccan courts if it does not explicitly meet internal criteria for identification and integrity. This results in a procedural asymmetry, in which the foreign party bears an increased burden of proof, regardless of the objective level of technical security of the process used.

Furthermore, the requirement for document integrity, rigorously applied by Moroccan courts, may conflict with certain foreign processes whose reliability is recognised in other legal systems but which are not expressly incorporated into the Moroccan framework. This divergence increases the risk of litigation and may deter operators from relying exclusively on electronic means to formalise their international contractual relationships.

The fragmentation of the legal framework applicable to digital transactions, resulting from the coexistence of several sector-specific texts, constitutes a source of uncertainty for economic operators and complicates the consistent application of rules relating to electronic evidence (Yahaya Hamidou, 2025).

Thus, whilst Moroccan law offers a satisfactory level of legal certainty within its domestic scope, it remains characterised by structural fragility in a transnational context. This fragility does not stem from a lack of recognition of electronic evidence, but from the absence of legal interoperability mechanisms to ensure sufficient predictability regarding the

admissibility of foreign electronic evidence. These findings call for reflection on the relationship between the protection offered by rigorous domestic regulatory oversight and the openness required for the cross-border recognition of electronic evidence in international sales contracts.

The legal certainty of electronic transactions is thus part of a broader objective to build a digital trust environment, an essential condition for the development of dematerialised transactions and for economic operators to adopt digital tools (LexisNexis Morocco, 'Digital Trust', 2025).

5. Comparative analysis and prospects for harmonisation

A comparative analysis of electronic evidence in international sales contracts concluded between professionals highlights a fundamental contrast between the Moroccan legal framework and international reference standards, in particular those derived from the United Nations Commission on International Trade Law's Model Law on Electronic Commerce and Regulation (EU) No 910/2014 on electronic identification and trust services. This comparison allows Moroccan law to be situated within a process of conceptual alignment with international principles, whilst revealing the limitations of its implementation in a transnational context.

5.1. Contributions and limitations of the UNCITRAL Model Law on Electronic Commerce

The UNCITRAL Model Law on Electronic Commerce enshrines a fundamental principle of non-discrimination against electronic form. It prohibits any legal exclusion based on the digital medium of a document and recognises the full probative value of data messages provided they fulfil the essential functions traditionally associated with written documents, in particular the identification of their author and the guarantee of the integrity of their content (UNCITRAL, Model Law on Electronic Commerce, 1996). This approach is part of a functional approach to evidence, free from formal requirements and traditional territorial constraints.

This approach aligns with international standards based on the principles of technological neutrality and functional equivalence, which today form the basis for the legal recognition of electronic writing in contemporary legal systems (Jabir & Ou-Yacoub, 2022).

With regard to the identification of the signatory, the Model Law is characterised by marked institutional neutrality. It does not make evidential recognition conditional upon the involvement of a specific national authority, but prioritises the assessment of the reliability of the technical process used to establish the link between the document and its author. This

neutrality gives the Model Law a transnational scope, in that an electronic document meeting these requirements is, in principle, capable of producing legal effects in any legal system that has incorporated its principles.

Moroccan law is broadly consistent with this principle of non-discrimination and functional equivalence, recognising the admissibility of electronic documents subject to safeguards regarding the identification of the signatory and the integrity of the document. However, unlike the approach adopted by the Model Law, these safeguards are governed by a primarily domestic framework, structured around the mechanisms provided for in Law No. 53-05 on the electronic exchange of legal data (2007) and Law No. 43-20 on trust services for electronic transactions (2020). The case law of the Court of Cassation confirms this partial transposition: the judgments handed down by the Commercial Chamber on 6 June 2013 (No. 250) and 29 November 2023 (No. 1/613) establish the admissibility of electronic evidence provided its reliability is established in accordance with the criteria of domestic law, without, however, automatically recognising foreign authentication procedures.

With regard to document integrity, the Model Law defines this requirement as the guarantee that the data message has not undergone any substantial alteration, provided that any possible modification remains detectable. This deliberately flexible approach allows for the use of a variety of technical methods. Moroccan law adopts a comparable requirement in terms of the intended purpose, but makes the recognition of probative value subject to a demonstration assessed by the court in accordance with domestic standards. This methodological divergence is one of the main factors explaining the persistent difficulties regarding the cross-border recognition of electronic evidence.

5.2 Comparison with the eIDAS Regulation and the issue of interoperability

Regulation (EU) No 910/2014 of 23 July 2014 on electronic identification and trust services (eIDAS) establishes, within the European Union, an integrated model for the recognition of electronic evidence. It provides that a qualified electronic signature, based on a qualified certificate issued by a recognised trust service provider in a Member State, is automatically recognised throughout the European Union. This mechanism is based on legal and technical interoperability, which relieves the parties and the courts of the need for additional checks relating to the territorial origin of the certificate (Regulation (EU) No 910/2014, 2014).

In international electronic transactions, the lack of systematic recognition of foreign electronic signatures and the difficulties associated with determining the applicable law undermine legal certainty and complicate the resolution of cross-border disputes (Yahaya Hamidou, 2025).

Moroccan law shares certain conceptual similarities with this model, notably in that it establishes a hierarchy of electronic signatures and provides for a specific regime for qualified electronic signatures backed by certificates issued by accredited service providers. However, these similarities do not translate into mutual or automatic recognition of foreign certificates. Law No. 43-20 on trust services for electronic transactions (2020) establishes a national accreditation system, such that the enhanced evidential value attached to qualified signatures remains subject to the involvement of a service provider recognised by the competent Moroccan authority.

Moroccan case law confirms this approach. In its judgment of 29 November 2023, the Court of Cassation recognised the probative value of electronic documents on the basis of their technical reliability, without, however, automatically equating them with foreign systems compliant with the eIDAS Regulation. The recognition of electronic evidence thus remains rooted in a logic of internal control, based on a case-by-case judicial assessment (Court of Cassation, Commercial Chamber, 29 November 2023, No. 1/613).

5.3 Prospects for harmonisation and conditional recognition of foreign certificates

The comparative analysis highlights a structural limitation of Moroccan law on electronic evidence, stemming from the cross-border closure of the evidentiary regime. Whilst this closure helps to strengthen legal certainty within the domestic legal order, it creates increased uncertainty in international sales contracts where evidence relies on foreign authentication procedures. Economic operators are therefore obliged to demonstrate the functional compliance of these procedures with the requirements of Moroccan law, as there is no mechanism for automatic recognition.

With this in mind, a gradual evolution of the Moroccan regulatory framework could be envisaged without calling its foundations into question. A first approach would be to introduce a mechanism for the conditional recognition of foreign electronic certificates offering functional guarantees equivalent to those required by Moroccan law. Such recognition could be subject to prior verification by the competent national authority, without requiring the systematic replication of technical systems.

A second approach would lie in strengthening the functional comparability of identification and integrity criteria, drawing inspiration from the interoperability mechanisms enshrined in Regulation (EU) No 910/2014 of 23 July 2014 (eIDAS), whilst adapting them to Morocco's specific institutional context. Such an approach would help to reduce the procedural asymmetries affecting foreign operators and improve the predictability of judicial outcomes in international disputes.

Ultimately, the comparative analysis reveals that Moroccan law is already largely aligned, in conceptual terms, with international standards regarding non-discrimination and evidentiary equivalence. The difficulties identified stem less from the absence of principles than from the manner in which they are implemented in a transnational context. In this light, harmonisation based on functional equivalence, rather than on the formal identity of the provisions, appears to be a relevant approach to strengthening the legal certainty of international sales contracts concluded between professionals.

6. Digital trust as a prerequisite for the effectiveness of electronic evidence in international sales contracts

The legal recognition of electronic evidence cannot be fully effective in the absence of a sufficiently trustworthy digital environment. Indeed, in international sales contracts concluded between professionals, the probative value of an electronic document depends not only on its compliance with the formal requirements of identification and integrity laid down by Moroccan law, but also on the degree of trust placed in the technical and legal systems governing its creation and storage.

From this perspective, digital trust appears as a functional extension of the rules of evidence. Legal certainty thus emerges as a fundamental pillar of digital trust, in that it guarantees the predictability of rules, the reliability of evidence and the protection of the parties' rights in a digitalised environment (Yahaya Hamidou, 2025). It is based on a set of legal and technical mechanisms designed to secure electronic exchanges, guarantee the reliability of information and protect the data used in transactions. As recent legal scholarship highlights, this trust is no longer limited to the good faith of the parties, but is now underpinned by regulatory and technological frameworks that structure digital exchanges and ensure the security of data and communications (El Homrani, 2025).

In Moroccan law, this approach is reflected in the interplay between the rules on electronic evidence and the legislation governing the security of digital systems and data protection.

Laws No. 53-05 and No. 43-20 thus contribute to the construction of a framework of trust by regulating the reliability of identification processes and providing a regulatory framework for trust services. However, this framework remains incomplete in an international context, as trust placed in a foreign technical system is not automatically recognised within the Moroccan legal system.

Furthermore, the gradual digitisation of the judicial system indirectly reinforces this requirement for trust. By facilitating the dematerialisation of procedures, the traceability of communications and the secure storage of documents, it helps to consolidate the reliability of electronic evidence produced before the courts. The integration of digital tools into the administration of justice thus improves the accessibility, transparency and efficiency of judicial proceedings (Laamrani El Idrissi & Benboubker, 2025).

However, this development does not eliminate the uncertainties associated with cross-border transactions. In international sales contracts, digital trust is hampered by the heterogeneity of legal frameworks and the lack of interoperability mechanisms between electronic certification systems. This situation can undermine the probative value of electronic documents when they are based on technologies or standards not recognised by Moroccan law.

Thus, electronic evidence in an international context cannot be understood independently of the concept of digital trust. This constitutes an essential condition for its effectiveness, in that it ensures the credibility of electronic documents across borders. Strengthening this trust necessarily requires better alignment between the internal requirements of Moroccan law and international standards, in order to guarantee greater legal certainty in digital commercial transactions.

Legal certainty thus appears as a fundamental pillar of digital trust, in that it guarantees the predictability of rules, the reliability of evidence and the protection of the parties' rights in a digitalised environment (Yahaya Hamidou, 2025).

7. Conclusion

The analysis carried out highlights that the Moroccan legal framework for electronic evidence, structured primarily by Law No. 53-05 on the electronic exchange of legal data (2007) and Law No. 43-20 on trust services for electronic transactions (2020), now provides a solid regulatory basis for the admissibility of electronic documents in international sales contracts concluded between professionals. By establishing the equivalence in evidential value between electronic documents and paper-based documents, subject to reliable

identification of the author and an effective guarantee of the integrity of the content, the Moroccan legislature has incorporated the essential principles for securing digital exchanges, in line with evolving international standards.

The case law of the Court of Cassation confirms the effectiveness of this framework at the domestic level. The judgments handed down on 6 June 2013 (No. 250) and 29 November 2023 (No. 1/613) illustrate a pragmatic approach to electronic evidence, based on concrete demonstration of the reliability of the process used, irrespective of any requirement for a handwritten signature or physical medium. Electronic documents are thus admissible as evidence in their own right provided that the court can verify the authenticity of their origin and the immutability of their content, in accordance with the requirements laid down by the Swiss Code of Obligations and Contracts and the applicable special laws (Court of Cassation, Commercial Division, 6 June 2013, No. 250; Court of Cassation, Commercial Chamber, 29 November 2023, No. 1/613).

However, this recognition remains essentially confined to the Moroccan legal system. The study shows that, as things stand, positive law does not provide for any mechanism for the automatic or conditional cross-border recognition of foreign electronic certificates and authentication processes, even where these offer functional guarantees equivalent to those required by the domestic framework. This situation contrasts with international standards, notably the UNCITRAL Model Law on Electronic Commerce and Regulation (EU) No 910/2014 of 23 July 2014 (eIDAS), which favour an approach based on non-discrimination against electronic form and, in the European context, on structured mechanisms for legal interoperability (UNCITRAL, Model Law on Electronic Commerce, 1996; Regulation (EU) No 910/2014, 2014).

This results in a zone of legal uncertainty for economic operators involved in international sales contracts involving Moroccan partners. In practice, the party relying on electronic evidence produced abroad must demonstrate that the process used complies with the requirements of Moroccan law, which may increase the burden of proof and affect the predictability of judicial outcomes. The legal certainty offered by Moroccan law thus appears robust within its domestic scope, but more fragile once the contractual relationship extends beyond national borders.

The comparative analysis therefore highlights the need for a gradual evolution of the Moroccan regulatory framework, not in its fundamental principles, but in the arrangements for their cross-border implementation. The introduction of mechanisms for the conditional recognition of foreign

electronic certificates offering equivalent functional guarantees, under the supervision of the competent national authority, would constitute a path to harmonisation compatible with the imperatives of legal sovereignty and internal security. Such a development would help to strengthen contractual predictability and the confidence of foreign partners in the exclusive use of electronic means to enter into contracts with Moroccan operators.

Ultimately, striking a balance between rigorous internal regulatory control and the openness required for the cross-border recognition of electronic evidence is a key challenge for the development of international sales contracts between businesses. Consolidating this balance appears to be an essential condition for supporting Morocco's integration into international digital trade, whilst preserving the coherence and security of its legal system.

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