



Algerian Legislation in the face of the need to regulate e-commerce

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Abstract

This study addresses the need to regulate e-commerce in Algerian legislation, as it seeks to analyze how technological development has forced the modernization of traditional rules governing contracts, focusing on the specific characteristics of electronic contracts, the legal value of electronic evidence, and the effectiveness of the legislative framework regulating e-commerce in Algeria. The study concludes that digital transformation has introduced a new legal reality; however, it still presents significant challenges that require continuous legislative adaptation to ensure legal certainty and effective protection of contractual parties.

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1. Introduction

The contemporary world is undergoing profound transformations driven by the digital revolution, which has permeated virtually all spheres of life, most notably the economic and commercial domains. These transformations have given rise to a new pattern of transactions based on electronic media, leading to the emergence of what is commonly referred to as e-commerce and digital commercial contracts. This development has contributed to overcoming traditional constraints related to time and place, thereby effecting a qualitative shift in the methods of contracting and the conclusion of commercial transactions.

However, notwithstanding the advantages offered by this digital transformation—particularly in terms of speed, flexibility, and cost reduction—it simultaneously raises a range of legal issues. Chief among these is the question of the adequacy of traditional legal rules governing commercial contracts to accommodate the specific characteristics of the digital environment, especially with regard to contract formation, expression of consent, evidentiary value of electronic evidence, and the security of transactions.

In this context, the Algerian legislator has sought to keep pace with these developments by enacting a set of legal provisions, notably the law relating to electronic commerce, as well as legislation

governing digital signatures and certification, with the aim of establishing a regulatory framework that ensures trust and security in digital transactions. Nevertheless, the question remains as to the effectiveness of this framework in achieving a balance between contractual freedom and the protection of contracting parties within the digital environment.

Accordingly, this study raises the following central question:

To what extent has the digital transformation succeeded in reshaping the legal rules governing commercial contracts under Algerian law, and what challenges hinder their practical application?

The significance of this study lies in its engagement with a contemporary issue that directly affects the core of modern commercial activity. It further seeks to assess the extent to which Algerian legislation aligns with global digital developments, while providing a critical and analytical reading of the relevant legal texts.

2. SECTION I: The Impact of Digital Transformation on the Formation of Commercial Contracts

Rapid technological development has led to a profound transformation in the nature of commercial transactions. Contracting is no longer conducted through traditional forms requiring the physical presence of the parties; rather, it

increasingly takes place within a digital environment based on modern electronic means of communication. This transformation has given rise to a new type of contract, namely the electronic contract, which is characterized by specific features distinguishing it from traditional contracts, both in terms of the medium used and the manner in which contractual consent is expressed.

In this regard, it has become necessary to reconsider the legal rules governing contract formation, particularly with respect to offer and acceptance, as well as the determination of the parties to the contractual relationship. This necessity arises in light of the absence of physical interaction between the contracting parties and their reliance on electronic media, which may obscure or render indirect their identities. The Algerian legislator has attempted to address these developments by establishing legal rules regulating electronic contracting, particularly within the framework of electronic commerce law, thereby conferring legal validity upon such transactions.

2.1 REQUIREMENT I: The Specificity of the manifestation of intent in Electronic Contracts

The manifestation of intent constitutes the fundamental pillar upon which any contract is based, as no contractual relationship can be conceived without the concurrence of two free and

corresponding wills. However, despite the stability of this principle, it has been significantly affected by digital transformation.

The manifestation of intent has shifted from direct, traditional means to intangible electronic methods, thereby giving rise to numerous legal issues concerning the validity of such expression, the limits of its evidentiary value, and the mechanisms for verifying its attribution to its author¹.

Accordingly, examining the specificity of the manifestation of intent in electronic contracts requires an analysis of the electronic offer as the initial stage in contract formation, given its decisive role in determining the content and conditions of the contractual relationship.

2.1.1 BRANCH I: The Electronic Offer

The offer constitutes the starting point in contract formation, as it represents the initial expression of one party's intention to conclude a specific contract. It must contain a sufficiently precise and complete proposal reflecting a serious intention to contract and be capable of acceptance by the other party. However, this traditional concept of the offer has undergone significant transformation as a result of digitalization, as it is now communicated through electronic means rather than conventional methods, thereby

giving rise to what is known as the electronic offer.

An electronic offer may be defined as the manifestation of intent made through electronic means of communication—such as email, websites, or digital applications—which includes a clear and specific proposal to conclude a contract, such that its acceptance results in the immediate formation of the contract³. This type of offer is characterized by its occurrence within a virtual environment based on the exchange of digital data, thus removing it from the traditional physical framework and placing it within the domain of distance contracting.

Despite the difference in medium, the electronic offer does not, in substance, depart from the general rules governing offers under civil law. It must be clear, precise, and definitive, and must reflect a genuine intention to contract, rather than constituting a mere invitation to negotiate or a commercial advertisement. Its specificity, however, lies in the medium through which it is expressed, as it relies on an electronic support that may be susceptible to manipulation or alteration, thereby raising issues concerning the validity and integrity of the manifestation of intent.

Furthermore, the electronic offer is distinguished by several characteristics that set it apart from the traditional offer. Most notably, it is made at a distance, without the

parties being present in a physical contractual setting, which raises questions regarding the determination of the time and place of contract formation, particularly in international transactions. Additionally, the electronic offer is often addressed to an indefinite public through websites, thereby raising the issue of distinguishing between a binding offer and an invitation to treat, as the display of goods or services online does not necessarily constitute a legally binding offer unless it meets the requirements of seriousness and definiteness.²

Moreover, the electronic offer necessarily involves a technical intermediary, namely the Internet or communication service providers, which renders the contracting process mediated by indirect actors. This may affect the attribution of the offer to its originator and raises legal issues relating to evidence and liability. In addition, this type of offer is closely linked to technological development, placing it in a state of continuous evolution, which in turn requires legislative frameworks to adapt on an ongoing basis.³

Accordingly, it may be asserted that, although the electronic offer retains its legal essence, it has acquired new specificities as a result of the digital environment. This development calls for a re-examination of traditional legal rules in light of these transformations, in a manner that ensures a balance between contractual

freedom and legal certainty in electronic transactions.

2.1.2 BRANCH II: Electronic Acceptance

Acceptance constitutes the second stage in the formation of a contract and refers to the expression issued by the offeree indicating consent to the offer addressed to them. The concurrence of acceptance with the offer results in the conclusion of the contract and the production of its legal effects. While this concept is well established within the framework of traditional contracting, digital transformation has conferred upon it new specificities, due to its transition into an electronic environment based on remote communication methods, thereby raising several issues relating to its expression as well as the determination of the time and place of its formation.

Electronic acceptance may be defined as the manifestation of intent issued by the offeree through electronic means, indicating binding agreement to the offer without modification, whether communicated via email, by clicking an acceptance icon on a website, or through various digital applications. This reflects the evolution of methods of expressing consent within the digital environment. It is characterized by its immaterial nature, as it does not occur within a traditional contractual meeting but rather through an electronic interface that enables the convergence of wills.⁴

Despite its electronic nature, acceptance remains, in principle, subject to the general rules governing acceptance. It must correspond to the offer, be explicit or implicit, and emanate from a free and informed will, free from defects of consent. However, its specificity lies in the medium through which it is expressed, as it relies on an electronic support, thereby rendering its evidence and the determination of the moment of its issuance more complex compared to traditional contracts, particularly in light of the multiplicity and variability of communication technologies.

One of the most distinctive features of electronic acceptance is its often instantaneous or quasi-instantaneous nature, particularly in transactions conducted via websites, where a simple click on a button such as “Agree” or “Complete Order” suffices to conclude the contract. However, this simplified form of acceptance raises concerns as to whether the contracting party is genuinely aware of the obligations arising from the contract, especially in light of the lengthy and complex standard terms frequently presented, which may undermine the authenticity of contractual consent.

Furthermore, electronic acceptance is intrinsically linked to distance contracting, as it occurs without the physical and simultaneous presence of the parties. This has been recognized by modern legislation, including Algerian law,

which acknowledges the possibility of concluding contracts through electronic means of communication, while also imposing the necessity of safeguards to protect the weaker party in the contractual relationship, particularly the electronic consumer.⁵

On the other hand, electronic acceptance raises the issue of determining the time and place of contract formation, which is of paramount importance in identifying the applicable law and judicial jurisdiction. In the digital environment, acceptance may be issued in one country and received in another, making the determination of the moment of contract formation dependent on various legal theories, such as the theory of declaration or the theory of receipt. These issues remain the subject of doctrinal and judicial debate in the absence of clear and decisive legal provisions.

Accordingly, it can be concluded that electronic acceptance, while retaining its legal essence, has been significantly influenced by digital transformation. It now operates within a virtual environment that necessitates a reconsideration of numerous traditional legal rules, in order to reconcile the requirements of speed and flexibility with the imperative of ensuring legal certainty and the protection of contracting parties.

2.2 REQUIREMENT II: The Specificity of the Parties to the Electronic Commercial Contract.

In its traditional structure, the commercial contract presupposes the existence of clearly defined parties whose wills converge within an organized regulatory framework. The merchant constitutes the central actor around whom commercial operations revolve, whether as a producer, distributor, or service provider. However, the impact of digital transformation has not been limited to the methods of contracting; it has extended to the very personal structure of the contractual relationship, leading to a reconfiguration of the concept of the parties to the commercial contract within the digital environment.

Within the digital economy, the merchant in its classical form—characterized by physical presence and attachment to a commercial establishment—is no longer the sole actor. Instead, a new category of economic participants has emerged, adapted to the nature of the virtual space, most notably the electronic supplier and the electronic consumer. This reflects a shift from a material contractual model to a virtual one based on technical intermediation and the exchange of data.⁶

This transformation raises profound legal issues concerning the determination of the legal status of each party, the limits

of their liability, and the extent to which they are subject to traditional rules or require the development of new legal norms that take into account the specificities of the digital environment—particularly in light of the imbalance in technical and informational capacities between the parties to the contractual relationship.

2.2.1 BRANCH I: The Electronic Supplier as a Substitute for the Traditional Merchant

In traditional commercial doctrine, the merchant is regarded as the cornerstone of economic activity, as their existence is linked to the professional exercise of commercial acts with the aim of generating profit, within a regulatory framework that defines their rights and obligations. However, this classical conception has begun to lose many of its defining features as a result of digital transformation. Commercial activity is no longer tied to physical existence or traditional organizational structures, but rather operates within a digital environment that transcends geographical boundaries and is based on electronic interaction.

In this context, the concept of the “electronic supplier” has emerged as a modern embodiment of the merchant, reflecting the shift from a material economy to a digital economy, where commercial activity is conducted through electronic platforms without the need for a

physical establishment in the traditional sense. The Algerian legislator has acknowledged this transformation by adopting this concept, defining the electronic supplier as a person who offers or provides goods and services through electronic means of communication. This definition reflects a fundamental shift from the criterion of “place” to that of “means” in determining the status of a merchant.⁷

However, the significance of the electronic supplier lies not merely in its formal substitution for the traditional merchant, but in its embodiment of a structural transformation in the very concept of commercial activity. Such activity is now based on data management and information flow rather than the physical exchange of goods, leading to a reconfiguration of the elements of the commercial process, whether in terms of offer, negotiation, or performance. The electronic supplier interacts with customers not through direct personal relationships, but via digital interfaces and information systems, resulting in a form of “dematerialization of the contractual relationship,” whereby it becomes a technically mediated relationship governed by algorithms and electronic systems.

This transformation also raises a fundamental issue regarding the attribution of contractual will, particularly in light of the use of intelligent systems and digital platforms that may conclude contracts in a

semi-automated manner without direct human intervention. This prompts questions as to whether such acts may be attributed to the natural or legal person behind these systems, and whether traditional legal rules remain sufficient to interpret this form of “digital will,” which is no longer a direct expression of human intent but rather the product of pre-programmed technical interactions.

From another perspective, the electronic supplier occupies a particular legal position characterized by an imbalance vis-à-vis the other party, namely the electronic consumer. The supplier typically possesses superior technical and informational capabilities, leading to a disparity in contractual equilibrium, especially in the context of standard-form contracts presented via digital platforms without any genuine opportunity for negotiation. This reality has prompted legislative intervention through the imposition of specific obligations on the electronic supplier aimed at enhancing transparency and ensuring consumer protection. This reflects a shift in the philosophy of commercial law from the principle of absolute contractual freedom toward a model of guided contractual balance.⁸

It follows from the foregoing that the electronic supplier does not merely represent a formal evolution of the traditional merchant, but rather embodies a qualitative transformation in both structure

and function. The supplier has become an actor operating within a digital environment governed by new rules of interaction, which necessitate a re-examination of classical legal concepts, whether relating to the notion of the merchant, their liabilities, or the scope of their obligations.

Accordingly, the electronic supplier constitutes a paradigmatic manifestation of digital transformation in the commercial field, not only as a substitute for the traditional merchant but as a novel model reflecting the transition of commercial law from the regulation of material transactions to the governance of digital relationships. This shift imposes the necessity of developing the legal system so as to keep pace with this profound transformation.

2.2.2 BRANCH II: The Electronic Consumer

The electronic consumer represents the second party in the electronic contractual relationship, namely the party that acquires goods or services through digital means for final use, thereby occupying a position distinct from that of the electronic supplier in terms of purpose and function within the contract. While the concept of the consumer is well established in traditional legal doctrine, the transition of contracting into the digital environment has produced a new form known as the “electronic consumer,” who operates within a virtual environment characterized

by complex technical and legal specificities.⁹

An electronic consumer may be defined as a natural or legal person who acquires goods or services through electronic means of communication for final use. This definition underscores the distinction between the consumer and the supplier, the latter engaging in the activity within a professional or commercial framework. Although this definition does not fundamentally depart from the traditional notion of the consumer, its specificity lies in the medium through which the contract is concluded, thereby placing the consumer in a distinct legal position.

One of the primary characteristics of the electronic consumer is that they contract within an immaterial environment, where direct interaction with the supplier is absent and replaced by digital interfaces. This reduces the possibility of directly verifying the characteristics of the goods or services, placing the consumer in a weaker position compared to the supplier, particularly in light of informational asymmetry, as the latter controls the technical and commercial data relating to the product or service.

Furthermore, the electronic consumer is often subject to standard-form contracts presented in advance, without any genuine opportunity to negotiate their terms. This results in a form of adhesion

contracting within the digital environment. Legal scholarship has noted that this situation undermines the principle of freedom of contract and calls for legal intervention to protect the consumer from potentially abusive clauses incorporated into such contracts.

Additionally, the electronic consumer faces difficulties relating to the evidence of their rights, especially given the digital nature of transactions, which rely on electronic data that may be subject to alteration or loss. This renders evidentiary issues more complex than in traditional contracts. Moreover, the international nature of electronic contracts further complicates the consumer's legal position, as they may find themselves subject to foreign laws or before judicial authorities located geographically far from them.

Moreover, the digital environment requires a certain level of technical knowledge on the part of the consumer, which may not be possessed by all users. This further widens the gap between the consumer and the electronic supplier, reinforcing the imbalance within the contractual relationship. Consequently, modern legal doctrine emphasizes the necessity of strengthening legal safeguards for the electronic consumer through the imposition of strict information obligations on the supplier and the guarantee of transparency in digital transactions.¹⁰

Thus, the electronic consumer cannot be regarded merely as an extension of the traditional consumer, but rather as a new actor within a digital environment characterized by specific features that necessitate a re-evaluation of legal safeguards rules in order to ensure contractual balance in the context of digital transformation.

3. SECTION II: The Impact of Digital Transformation on the Performance and Evidence of Commercial Contracts

The impact of digital transformation is not limited to the stage of contract formation; it extends to encompass both the performance and evidence of the contract. The digital environment has generated new patterns in the performance of contractual obligations that differ from traditional forms, whether in terms of methods of payment or modes of delivery, and has also led to the emergence of modern means of evidence based on electronic support.

In this context, contract performance is no longer carried out through conventional material methods but rather relies on electronic means that enable the rapid and efficient execution of commercial transactions. This raises legal challenges relating to the evidentiary value of such means and the adequacy of traditional rules to accommodate them. Accordingly, examining the impact of digital transformation on contract performance requires an analysis of the

specific characteristics of the execution of contractual obligations within the digital environment.

3.1 REQUIREMENT I: Performance of the Contract in the Digital Environment

The performance of a contract constitutes the stage at which contractual obligations are translated into practical reality, with each party fulfilling the commitments undertaken. However, this stage has been profoundly affected by digital transformation, as performance is no longer carried out through traditional means but increasingly relies on modern electronic tools, particularly with respect to payment and delivery.¹¹

This transformation has led to the emergence of new forms of performance characterized by speed and automation. Nevertheless, these developments give rise to complex legal issues that concern not only the means of performance but also its very nature, as performance now occurs within an intangible digital environment where technical and legal dimensions intersect. This necessitates a reassessment of the traditional rules governing the performance of obligations.

3.1.1 BRANCH I: Electronic Payment as a Means of Discharging the Price

Payment of the price constitutes one of the principal obligations incumbent upon the buyer in a commercial contract. In the traditional environment, this obligation

takes the form of cash payment or the use of recognized instruments such as negotiable instruments. However, digital transformation has introduced a relative departure from these methods through the emergence of new forms of payment known as electronic payment, which have become the cornerstone of the execution of electronic commercial contracts.

Electronic payment may be defined as any method by which funds are transferred through electronic communication networks without the physical exchange of money, using various technical instruments such as digital bank transfers, electronic cards, and virtual currencies. Despite its apparent simplicity, this definition conceals a profound transformation in the concept of “money” itself, which is no longer merely a tangible medium of exchange but has become digital data capable of processing, storage, and transmission through information systems.¹²

It is noteworthy that electronic payment is not merely a technical means of discharging an obligation but reflects a structural transformation in the nature of financial obligations. Such obligations are now executed through complex technical systems involving multiple actors, including banks, payment service providers, and communication networks. This leads to a fragmentation of the traditional bilateral relationship between

creditor and debtor, transforming it into a multi-party relationship of a technical and institutional nature.

Moreover, this form of performance occurs within a purely virtual environment, raising the issue of the “materiality of performance,” as execution no longer involves the delivery of a tangible object but rather consists of digital records evidencing the transfer of value from one account to another. Legal doctrine has thus characterized performance in the digital environment as “informational performance,” based on the transfer of data rather than physical money.

Furthermore, electronic payment is closely linked to the element of trust, as parties rely on the integrity of information systems and their ability to protect financial data from breaches or manipulation. However, this trust remains relative in light of increasing cyber risks, such as electronic fraud and data theft, which necessitate the strengthening of both technical and legal safeguards to ensure the security and stability of transactions.

Additionally, the multiplicity and diversity of electronic payment methods reflect the flexibility of this system, but also raise the issue of regulatory fragmentation, as different regulatory frameworks govern each method. This results in the absence of a unified legal regime applicable to all forms of electronic payment, raising questions as to whether

these methods can be subjected to traditional rules of payment or whether a specific regulatory framework is required.

From another perspective, electronic payment raises a delicate issue concerning evidence of discharge, as it relies on electronic records and data that may be contested in terms of their accuracy or technical integrity. Consequently, evidence is no longer based on traditional material evidence but on digital evidence requiring specific legal rules to ensure its evidentiary value, thereby illustrating the overlap between the stages of performance and evidence in the digital environment.

Moreover, the instantaneous nature of electronic payment, while enhancing efficiency, may reduce opportunities for reversal or correction of errors, thereby raising issues concerning the protection of the debtor, particularly in cases of erroneous or unauthorized payments. This necessitates the establishment of legal mechanisms to allow for the correction of financial operations and the recovery of rights.

Accordingly, electronic payment should not be regarded merely as a modern means of discharging obligations, but as a fundamental transformation in the concept of financial performance, shifting it from the material sphere to the digital domain. This transformation calls for the reconstruction of the regulatory framework governing such mechanisms in a manner

that balances the requirements of speed and efficiency with the guarantee of legal certainty and the protection of the parties.

3.1.2 *BRANCH II: Digital delivery of the Subject Matter of the Contract*

Delivery constitutes one of the essential obligations incumbent upon the seller in commercial contracts, as it entails the transfer of possession of the subject matter of the contract to the buyer, thereby enabling them to benefit from it and achieve the purpose of the binding agreement. While delivery in the traditional framework involves the physical transfer of goods, digital transformation has given rise to a new form known as “digital delivery,” which takes place within a virtual environment without the need for direct physical transfer.

Digital delivery may be defined as the process by which the buyer is enabled to obtain the subject matter of the contract through electronic means, such as downloading software, accessing digital content, or receiving files **via** the Internet. This reflects the transition of the subject matter of the obligation from a tangible object to digital data capable of transmission through information systems.

This form of delivery introduces a fundamental transformation in the concept of performance, as delivery no longer requires the transfer of physical possession but is deemed accomplished **once the buyer is granted** technical control over the

subject matter, such as by providing access credentials or a download link. Legal doctrine has thus considered that delivery in the digital environment is achieved through “granting access” rather than

transfer of possession” in the traditional sense.¹³

Furthermore, digital delivery is often characterized by immediacy, as performance may occur at the moment of contract conclusion or shortly thereafter, in line with the instantaneous nature of electronic transactions. However, this immediacy may raise issues concerning proper performance, particularly in cases of technical failures or network interruptions, which may prevent the subject matter from reaching the buyer despite payment having been completed.

Additionally, digital delivery raises the issue of determining the moment at which risk transfers, a matter of considerable importance in commercial law. In the traditional context, risk is typically linked to the transfer of possession; however, in the digital environment, the absence of a tangible element complicates the determination of the exact moment of delivery, particularly where technical intermediaries are involved in the transmission of data.

Moreover, this form of delivery gives rise to evidentiary challenges, as evidence relies on electronic records or

digital data confirming the act of transmission or download, which may be contested in terms of their authenticity or technical integrity. This necessitates the application of specific legal rules to ensure their evidentiary validity.

Finally, digital delivery may involve intangible rights, such as intellectual property rights, which impose restrictions on the use of the subject matter, including prohibitions on copying or distribution. Consequently, performance extends beyond mere delivery to include compliance with licensing and usage conditions, reflecting the complexity of contractual relationships in the digital environment.

Accordingly, digital delivery represents a qualitative transformation in the concept of performance, shifting from physical transfer to digital enablement. This transformation requires a reconsideration of traditional legal rules governing delivery, in a manner that accommodates the specificities of the digital environment and ensures legal certainty in electronic transactions.

3.2 REQUIREMENT II: Evidence in Electronic Commercial Contracts

Evidence constitutes one of the fundamental pillars upon which legal transactions are based, as the mere existence of a right is insufficient; rather, its holder must be able to establish it in the

event of a dispute. Traditionally, the law of evidence has been structured around specific means, such as writing, testimony, and presumptions, all of which were closely linked to the material nature of transactions conducted within a tangible framework. However, digital transformation has given rise to a new environment based on the exchange of electronic data, thereby leading to the emergence of modern means of evidence that differ in nature from traditional ones.

In this context, evidence is no longer dependent on a paper-based medium but is instead founded upon an electronic medium, including electronic messages, digital records, and digital signatures. This development raises precise legal issues concerning the evidentiary value of such means, the conditions for their admissibility, and their capacity to ensure legal certainty in commercial transactions.

Moreover, the specific nature of the digital environment—characterized by speed, modifiability, and instability—renders evidence a more complex matter, particularly in the absence of unified standards guaranteeing the integrity of electronic data. Accordingly, examining evidence in electronic commercial contracts requires an analysis of its principal methods, foremost among which are electronic writing and digital signatures.

3.2.1 *BRANCH I: Electronic Writing*

Writing constitutes one of the most important means of evidence in legal transactions and has traditionally been associated with a paper-based medium as the primary method of documenting legal acts. However, digital transformation has led to a redefinition of the concept of writing, such that it is no longer confined to a physical form but now encompasses any medium that enables the storage and retrieval of information.¹⁴

In this respect, electronic writing may be defined as a set of data or information created, transmitted, or stored by electronic means, in a manner that allows it to be perceived and subsequently accessed. This definition emphasizes the function performed by writing rather than its form, reflecting a modern approach based on the principle of “functional equivalence,” whereby the electronic medium is equated with the paper medium whenever it fulfills the same function.

Nevertheless, recognition of electronic writing as a means of evidence remains subject to a number of conditions, most notably the ability to preserve the data in a manner that ensures its integrity and prevents alteration, as well as the ability to reliably attribute it to its author. This raises both technical and legal issues concerning the reliability of the information systems through which such data are created.

Furthermore, the digital nature of writing renders it susceptible to

manipulation or distortion, thereby casting doubt on its evidentiary value, particularly in the absence of technical mechanisms ensuring its integrity. This has led both legal doctrine and legislation to establish certain standards, such as the requirement of ensuring the “integrity of the electronic document” and its “capacity for storage and retrieval,” as essential conditions for its admissibility as evidence.

On the other hand, electronic writing is characterized by its flexibility and adaptability to various forms of transactions. It may take the form of an email, a contract concluded via a digital platform, or a record stored within an information system, making it particularly suited to the nature of electronic commerce, which is based on speed and the instantaneous exchange of data.

Accordingly, electronic writing represents a natural evolution in the concept of evidence, transitioning from a material to a digital medium. However, this transition necessitates the provision of both technical and legal safeguards to ensure its evidentiary value and the stability of transactions.

3.2.2 BRANCH II: The Digital signature and Its Evidentiary Value

While electronic writing serves to establish the content of a legal act, the signature constitutes the means by which such writing is attributed to its author,

expressing their intention to be bound by its contents. In this sense, the signature is an essential element of evidence, whose importance is no less significant than that of the writing itself.

With the advent of the digital environment, the signature is no longer limited to its traditional handwritten form, but has evolved into what is known as the digital signature, which represents a technical method used to verify the identity of the signatory and ensure that the act emanates from them. An digital signature may be defined as data in electronic form that are attached to or logically associated with an electronic document and are used to identify the signatory and indicate their consent to the content of the document.

The digital signature performs the same functions as the traditional signature, namely identifying the signatory, expressing their will, and preventing denial of the act. However, it differs in its medium, as it relies on encryption technologies and digital codes rather than handwritten marks.

Nonetheless, the recognition of the evidentiary value of the digital signature remains contingent upon the fulfillment of certain conditions, most notably ensuring a unique link between the signature and its signatory, as well as the ability to detect any alteration made to the document after its signing. This is typically achieved through encryption systems and electronic

certification authorities, which serve as the technical guarantors of the integrity of the signature.

Furthermore, the digital signature raises issues of trust, as its acceptance as a means of evidence depends on the reliability of the entity issuing certification certificates. This has led to the emergence of specialized bodies responsible for verifying the identity of the parties and ensuring the security of electronic transactions.

On the other hand, the digital signature gives rise to legal challenges concerning its attribution to its purported author, particularly in cases involving data theft or unauthorized use. This necessitates the establishment of legal rules defining liability in such situations and ensuring the protection of contracting parties.¹⁵

Accordingly, the digital signature constitutes the cornerstone of the system of electronic evidence, as it ensures the attribution of the legal act to its author and confers upon it evidentiary value. However, its effectiveness remains dependent upon the existence of an integrated technical and legal environment capable of guaranteeing security, reliability, and trust in electronic transactions.

4. CONCLUSION

In conclusion, this study demonstrates that digital transformation has brought about a profound shift in the structure of commercial contracts, moving contracting practices from a traditional framework based on the physical presence of the parties to a digital environment characterized simultaneously by speed, flexibility, and complexity. This transformation has contributed to the reconfiguration of several legal concepts, particularly those relating to contract formation, the manifestation of intent, and methods of evidence. It is also evident that the Algerian legislator has sought to keep pace with these developments by recognizing the evidentiary value of electronic writing and digital signatures, and by enacting specific legislation on electronic commerce, thereby reflecting a clear orientation toward fostering trust in digital transactions and enhancing legal certainty.

However, the study also reveals that, despite its significance, this regulatory framework continues to face a number of challenges at the level of practical implementation, particularly in light of the rapid pace of technological development, which often exceeds the rate of legislative adaptation. Accordingly, achieving the desired effectiveness requires the periodic revision of legal texts to align with

emerging digital developments, the strengthening of legal safeguards for the parties to electronic contracts—especially the consumer—as well as the development of digital infrastructure and the intensification of specialized training for judges and legal practitioners. Furthermore, the dissemination of digital legal culture and the reinforcement of trust in electronic transactions remain essential factors for ensuring the success of digital transformation in the contractual field.

1. Findings of the Study

- Digital transformation has contributed to reshaping the concepts of contracting, particularly with regard to the manifestation of intent and the conclusion of contracts at a distance.
- The Algerian legislator has recognized the legal validity of electronic writing and digital signatures, thereby enhancing trust in digital transactions.
- Despite the existence of a regulatory framework, practical application continues to encounter several difficulties, particularly in relation to evidence and the protection of the electronic consumer.

- There exists a gap between rapid technological development and legal texts, which require continuous updating.

2. Recommendations

- The necessity of periodically updating Algerian legislation to keep pace with rapid digital developments.
- Strengthening legal safeguards mechanisms for consumers in the electronic environment.
- Developing digital infrastructure, particularly in the field of digital signatures and certification.
- Providing specialized training for judges and legal practitioners in digital law to ensure proper application of legal provisions.
- Encouraging electronic transactions through the promotion of digital culture and the reinforcement of trust in the digital environment.

5. Bibliography List :

1. Books :

- Mohamed Fawaz Al-Mutalaqa, *Al-Wajiz fi 'Uqud al-Tijarah al-Electroniyyah* (A Concise Guide to E-Commerce Contracts), Dar Al-Thaqafa, Amman, 2011.
- Khaled Mamdouh Ibrahim, *Ibram al-'Aqd al-Electroni* (Conclusion of the Electronic Contract), Dar Al-Fikr Al-Jami'i, Alexandria, 2011.

2. Theses:

- Ajali Belkhaled, *The Regulatory framework of Electronic Contracts in Algerian Legislation*, Doctoral Thesis, University of Tizi Ouzou, 2014.
- Yamina Houhou, *The Electronic Sales Contract in Algerian Law*, Doctoral Thesis, University of Algiers, 2012. **Journal article :** author's name (year), full title of the article, review name, place, volume and number ;

3. Seminar article:

- Abdelhay Al-Qasim Abdelmoumin, "The Concept and Characteristics of the Electronic Contract," Journal of Bakht Al-Rida University, 2014.
- Si Youssef Zahia Houria, "Commentary on Article 140 bis," Critical Review of Law and Political Sciences, 2010.
- Kassouri Fahima, "The Specificity of Contractual Freedom in Electronic Commercial Offers," Journal of Contract Research, 2018.

- Abderrahmane Belliya, "Delivery in the Electronic Sales Contract as a Legal Mechanism for Consumer Protection," *Ma'arif Journal*, University of Bouira.

4. Legal Texts:

- Law No. 18-05 of 10 May 2018 relating to Electronic Commerce, Official Gazette No. 28, issued on 16 May 2018.