



Electronic Commercial Papers in Light of the Accelerating Digital Transformation Between Reality and Law

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Abstract:

Amidst the significant developments in the banking industry in the field of electronic banking operations, thanks to ongoing technological innovations and intense competition among banking institutions, electronic banking payment methods have emerged to complement traditional methods. Although the Algerian legislator has adopted electronic payment systems, it is still suffering from a significant delay in adopting them in practice, especially in light of the inability of current legal rules to accommodate this development. Therefore, this study came to examine the extent to which the legal rules governing traditional commercial papers extend to electronic checks and bills of exchange.

Keywords: Electronic Bill of Exchange; Electronic Check; Monetary & Banking Law ; Means of Payment.

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Introduction :

In order to keep pace with the speed and demands of the digital age, and to facilitate banking services, Algerian banks have adopted electronic means of banking payment as a gateway to entering the digital economy, which has swept across banking transactions internationally. This has required the monetary authority to undertake regulatory and legislative arrangements through the development of electronic clearing¹, and automated teller machines. In addition, phased plans were set to begin introducing electronic payment services, in accordance with priorities and strategic plans at the level of the Bank of Algeria and other banks.

This development brought about by e-commerce has led to the emergence of numerous means through which contracts and obligations arising from commercial legal relationships—such as the sale of goods and the provision of services via the Internet—are executed. As a result, several payment methods have appeared in this field, including electronic commercial papers, which can be defined as: **“Instruments processed electronically, either wholly or partially, representing a right whose subject is a sum of money, negotiable by commercial means, payable on demand or after a short term, and serving as a substitute for cash in settlement”**².

Electronic commercial instruments, in this sense, take two forms:

- Electronic commercial papers in paper form:** These are issued initially in the traditional manner on a paper document, then processed electronically and their content entered onto an electronic medium.

- Magnetized electronic commercial papers:** In these, the role of paper disappears entirely, and the process is carried out wholly through electronic means. They are issued from the outset on a magnetized electronic medium, and if they are negotiated, this is done through electronic means.

Electronic commercial papers do not differ from their traditional counterparts in terms of form, content, and function. All the data required by law to be included in an ordinary commercial instrument of any type cannot be omitted from an electronic commercial instrument upon issuance. The difference between them lies in the fact that the latter is processed electronically, which gives it a form consistent with the nature of e-commerce.



The electronic bill of exchange and the electronic cheque are among the new payment methods that have taken a leading position among electronic payment means. They have played a fundamental role in all aspects of social, economic, and legal life, attracting the attention of jurists and legislators in many countries. They have shifted from the traditional form to the electronic form to align with developments in the banking sector.

The use of the electronic bill of exchange and the electronic cheque has coincided with individuals' need for an intermediary enabling them to settle their financial transactions and fulfill their obligations through them. Without the bank's intervention, the settlement process cannot occur, as it plays a fundamental role in payment through these instruments, ensuring the highest degree of security and suitability from both legal and technical perspectives, thereby maintaining the trust of its clients.

Algeria is among the countries that have recognized the necessity of elevating its banking system to match ongoing developments, and thus the need to modernize its payment system. This system not only suffers from delays in the application and introduction of electronic payment methods, but also from a society that largely refuses to deal with modern means, giving priority instead to cash in its transactions. This awareness led to the adoption of several projects, some of which entered into force starting in 2005, within the framework of modernizing and digitizing payment methods, thereby taking the first steps toward implementing electronic payment means. These were defined by the Algerian legislator in Article 74 of Law No. 23-09 as³: "Means of payment are all instruments that enable any person to transfer funds, regardless of the instrument or technical method used, including electronic currency."

Accordingly, the Algerian legislator adopted electronic payment means through certain scattered provisions in various laws, such as the Commercial Law and the Monetary and Banking Law, which include the electronic cheque and the electronic bill of exchange. In the absence of specific legislative rules governing payment by electronic cheque and electronic bill of exchange, it is necessary to refer to the general rules in this field, namely the Commercial Law, which regulates dealings in commercial instruments.

Therefore, the study of commercial instruments in this research paper will focus solely on their modern form, in which their method of processing and negotiation has changed. We will address the electronic bill of exchange and the



electronic cheque, due to their common requirement of the presence of a third party other than the drawer and the beneficiary, namely the drawee. This will be done by answering the central question: **To what extent do the rules governing dealings in the electronic bill of exchange and the electronic cheque under Algerian law keep pace with developments in the banking sector, and how effective are they in light of the major digital transformation?**

The answer to this question will be approached through two main sections: the first section is devoted to studying the electronic bill of exchange as one of the most important forms of commercial papers, while the second section addresses the electronic cheque in terms of its concept and the procedures for its negotiation.

THE FIRST TOPIC: THE ELECTRONIC BILL OF EXCHANGE

To facilitate banking financial transactions, banks have worked to strip the bill of exchange of its physical form, at least partially. Bank clients no longer need to carry out all the procedures related to the bill of exchange themselves; rather, the process is now limited to depositing it with the bank, which directly undertakes the procedures for collecting its value upon its maturity date, through special communication channels between banks established by the central bank.

The emergence of the electronic bill of exchange is linked to the French experience, as a result of the efforts of committees tasked with attempting to solve the financial and administrative problems arising from dealing with this instrument—particularly when banks are involved as a party to the transaction—or with the aim of benefiting from modern information technology and electronic equipment, especially given the presence of the clearing computer at the Central Bank of France.

The electronic bill of exchange, as a means of debt collection and negotiation, began to be used on 2 July 1973⁴. It was the product of the Gilet Committee's efforts to reduce the costs of short-term credit, which proposed it as a new means of payment in place of the traditional bill of exchange⁵. The definition of the electronic bill of exchange does not differ greatly from that of its counterpart issued on paper media, as the bill of exchange system is based on refining or developing the system established for the ordinary, i.e., paper, bill of exchange.

Accordingly, it can be defined as: **“A formal, tripartite instrument, processed electronically in whole or in part, containing an order from a person called the drawer to another person called the drawee to pay a sum of**



money to a third person called the payee, either on demand or on a specified date”⁶.

In light of the current situation and in practical terms, the electronic bill of exchange has only been used through banks. Even with the ordinary bill of exchange, banks play a major role in its operations. However, from a legal standpoint, there is nothing to prevent the existence of an electronic bill of exchange between individuals and companies with one another through private networks, or even via the Internet.

Although this concept is rarely applied in practice, there is nothing in the legal texts to prohibit it. Accordingly, in this section we address the most important legal aspects related to the electronic bill of exchange and the difficulties facing its system of use.

FIRST REQUIREMENT: ISSUANCE OF THE ELECTRONIC BILL OF EXCHANGE AND ITS TYPES

We will first address the conditions for issuing the electronic bill of exchange, and then outline its types.

Firstly: Issuance of the Electronic Bill of Exchange

In terms of form, the electronic bill of exchange is a bill of exchange in the strict sense⁷. It does not differ from the traditional paper bill of exchange in terms of the need to meet the mandatory conditions and data required for the validity of the bill of exchange.

However, it also requires several additional conditions specific to the electronic bill of exchange, which distinguish it from the traditional paper bill of exchange. These conditions include⁸:

1. The electronic bill of exchange must be issued on a pre-printed form in various formats, in a manner that allows it to be viewed using modern information tools (computer).
2. In addition to the traditional data⁹, the electronic bill of exchange must include other important information, particularly concerning the drawee, such as: the name of the drawee's bank, the number of his account at that bank, and the name of the branch where the drawee's account is held. These are referred to as the drawee's personal or banking identity details.



3. The use of the electronic bill of exchange requires prior agreement among all parties involved in it (the issuer of the bill, the initiating bank, the drawee, the paying bank, and the central bank).

Secondly: Types of Electronic Bills of Exchange Electronic bills of exchange are divided into two types:

1. The paper-based electronic bill of exchange.
2. The magnetized electronic bill of exchange, or one issued on magnetic media.

a) **The Paper-Based Electronic Bill of Exchange (La lettre de change relevé papier):** Abbreviated as L.C.R papier, this type is issued initially in paper form like any traditional bill of exchange, then processed electronically when presented to the bank for collection or when endorsed to another party¹⁰. It thus acquires an electronic form through data exchanged via communication channels between the computers of the parties dealing with it.

b) **The Magnetized Electronic Bill of Exchange (La lettre de change relevé magnétique):** Abbreviated as L.C.R magnétique, in this type there is no paper medium at all. The bill of exchange is issued from the outset on a magnetized medium, containing all the data required for its validity on a magnetic chip. There is therefore no use of paper, unlike the paper-based electronic bill of exchange, in which the drawer delivers a genuine paper bill to his bank, and the latter transfers the bill's data onto a magnetic chip.

This duplication of operations does not occur in the case of issuing a magnetized electronic bill of exchange, which saves both paper and time.¹¹ This has made it the pinnacle of progress in the art of issuing bills of exchange, as it is materially simple, avoiding the need for initial drafting on paper, while at the same time achieving full compatibility with the complete information system (Informatique). It is, in the strict sense, a truly electronic bill of exchange. These methods and tools must be presented precisely and clearly without exaggeration so that other researchers can re-examine or verify them. The author can describe the tools and methods used in the form of a scheme, table or diagram to explain methods used, this section is divided into sub-sections, where its contents vary according to the subject matter of the article.

We conclude that there is a fundamental difference between the two types of electronic bills of exchange, because the first – the paper-based electronic bill of



exchange – is a genuine bill of exchange that meets all the conditions required for an ordinary bill of exchange, and after its creation, it is transferred onto a magnetic medium by the drawer's bank.

As for the second – the magnetically-based electronic bill of exchange – it excludes any written paper, and here a question arose as to whether the designation “electronic bill of exchange” on a magnetic medium is an appropriate term or not¹², bearing in mind that the Geneva Convention governing commercial instruments does not preclude the existence of an instrument that may be called a bill of exchange without providing the legal characteristics known in the Uniform Law.

Nevertheless, the use of the electronic bill of exchange in general raises many legal problems and faces legal weaknesses,¹³ and users of this system have not yet discovered all its advantages and disadvantages, especially from a banking perspective.

SECOND REQUIREMENT THE LEGAL REGULATION OF THE ELECTRONIC BILL OF EXCHANGE

It is observed in the field of regulating electronic commercial instruments in general, and the electronic bill of exchange in particular, that there is an absence of a comprehensive legal framework governing them, especially at the domestic level in Algeria. Accordingly, there is no alternative but to resort to the general rules established by the legislator for traditional commercial instruments. Within the scope of these rules, a question arises as to the extent to which both types of electronic bills of exchange are subject to the provisions of commercial law relating to commercial instruments, which jurisprudence has come to call the Law of Exchange.

In reality, the position of jurisprudence on this question stemmed from a fundamental view, namely the necessity of a paper instrument for the application of the provisions of the Law of Exchange. The obvious answer was that the paper-based electronic bill of exchange is subject to the provisions of the Law of Exchange.

As for the magnetically-based bill of exchange, it cannot be subject to the provisions of this law due to the absence of a tangible physical instrument. Accordingly, it is not subject to endorsement transferring ownership, nor does the



aval apply to it in the negotiable instruments sense of the term, nor is it subject to acceptance by the drawee. Thus, they consider that this bill of exchange is incapable of performing the role of the ordinary bill of exchange or even the paper-based electronic bill of exchange as a credit instrument, and regard it merely as a convenient tool for collection and debt recovery¹⁴, used at the initiative of the creditor, leaving the debtor to agree to payment and to monitor its occurrence. This is in contrast to the paper-based electronic bill of exchange, which is considered a genuine bill of exchange that can be delivered to the bank for collection or for discounting¹⁵.

In fact, this opinion is open to discussion, since the legislator did not require that the instrument be on paper. There is nothing in the linguistic origin of the word “instrument” that limits its meaning to what is written on a specific type of medium, whether paper or otherwise. Hence, it can be said that the term “instrument” includes both written and electronic instruments alike¹⁶. This meaning is confirmed by the issuance of Electronic Signature Law No. 04-15¹⁷, which grants electronic instruments the same legal value and evidentiary weight as paper instruments, pursuant to Article 09, as well as Article 323 bis 1 of the amended and supplemented Algerian Civil Code, which explicitly adopts the principle of equality between writing on paper and electronic writing. Accordingly, it is not appropriate to speak of a distinction between the paper-based electronic bill of exchange and the magnetically-based electronic bill of exchange on this principle, as both are subject to the provisions of the Law of Exchange, such as endorsement, acceptance, and aval. The difficulty of carrying out these operations does not negate the application of the provisions of the Law of Exchange so long as the possibility of performing such operations exists.

THIRD REQUIREMENT: THE PRACTICAL APPLICATION OF THE ELECTRONIC BILL OF EXCHANGE

The system or mechanism of the electronic bill of exchange is characterized by precision compared to the system of the ordinary bill of exchange, which relies on a paper medium. The payment process or system is the same for both types of bills of exchange, but the difference lies in the formation of the instrument.

The need to reduce paper usage, cut the high costs of creating and handling the bill of exchange in paper form, and reduce the transactions required for its negotiation, led to the emergence of the magnetically-based electronic bill of exchange. Unlike the paper-based electronic bill of exchange, the magnetically-based electronic bill of exchange is issued on a magnetic medium without any



possibility of viewing it in paper form, as it is handled electronically using computers.

Here, the client – the drawer – who is always a business or one of the major institutions, accesses special banking communication channels opened by the bank specifically for dealing with them. The client fills out a bill of exchange using a special template available on their computer through the communication channels provided by the bank, which contains their electronic signature. The bill of exchange is then sent, after completing its details, to the bank through these channels on the basis of a collection endorsement for the purpose of collecting it from the drawee¹⁸.

Thus, the magnetically-based electronic bill of exchange is reserved for institutions and enterprises rather than individuals, because, on the one hand, transactions involving it are only conducted for large sums that may only be available to such entities, and, on the other hand, it can only be created through special communication channels between banks and those institutions and enterprises. Banks do not provide the same communication channels for ordinary individuals due to the costs involved in using them, given the many complex technologies required for their creation.

Accordingly, we conclude that the issuance of the electronic bill of exchange is an act carried out by the drawer's institution, which uses its own digital system. It is sufficient for the drawer to possess the interbank digital secret codes, which are pieces of information provided by the bank with which the drawer deals¹⁹. The generalization of this system would offer a new perspective on payment guarantees, which are essentially based on mutual trust and security between the parties, and would have significant positive effects in the field of banking payments.

Nevertheless, there are many difficulties facing the electronic bill of exchange system that prevent its widespread use. We summarize the most important of these as follows²⁰:

Firstly:

The electronic bill of exchange system requires significant involvement from qualified legal professionals, as well as harmonization between the applicable laws and the modern technical data of information systems. This necessitates amending the laws to align with the adoption of the electronic bill of exchange system, along



with the expansion of the use of computers and information systems in the transfer and settlement of debts.

Secondly:

The adoption of this system requires strict accuracy and integrity of documents, whether in terms of information or communications.

Thirdly:

The lack of modern information systems in many banks and enterprises, especially in developing countries including Algeria, hinders the adoption of this system. Therefore, these automated information systems must be generalized across various financial institutions to enable the adoption and expansion of this system.

Fourthly:

The current rules of the Law of Exchange are not suitable for the application of the electronic bill of exchange system, which makes it necessary to establish a modern legal framework compatible with the use of computers, whether in the negotiation of such bills or their settlement.

Fifthly:

Operating under the electronic bill of exchange system requires abandoning the necessity of transferring the bill from one hand to another for its collection, and does not require its receipt from the drawee upon payment. Likewise, the current legal provisions relating to endorsement, acceptance, and aval, etc., in their present form, constitute a real obstacle to the electronic bill of exchange system. Therefore, they must be amended or their application restricted to ordinary, i.e., paper-based, bills of exchange that govern individual relationships.

THE SECOND TOPIC: ELECTRONIC CHEQUES

The cheque is considered one of the most widely used commercial instruments that can benefit from information technology and electronic processing. In the case of cheques, banks are a key party in their settlement and collection. Since banks primarily use electronic processing methods, the cheque is the most important commercial instrument subject to such processing. Moreover, the cheque must be issued on a bank form, which allows banks to design the form in a way that is compatible with the electronic processing of data.



On the other hand, despite the emergence and spread of various modern electronic payment methods, the cheque retains its significant and undeniable importance in settling debts arising from commercial transactions of all kinds. This is due to the lower risks associated with its use compared to other payment methods such as bank cards or electronic bank transfers. This may explain why parties prefer to use it to settle high-value debts. In addition, organizations and institutions operating in the field of settling debts arising from commercial transactions often propose various amendments and solutions to adapt the cheque to the requirements of electronic commerce²¹.

FIRST REQUIREMENT: THE CONCEPT OF ELECTRONIC CHEQUES

The electronic cheque is the electronic equivalent of traditional paper cheques that people are accustomed to using in their various transactions. It is defined as an authenticated and secured electronic message sent by the cheque issuer to the cheque recipient (holder) for endorsement and presentation to an online bank. The bank first transfers the cheque's monetary value to the holder's account, then cancels the cheque and returns it electronically to the cheque recipient (holder) as proof that the cheque has indeed been cashed. The cheque recipient can also verify electronically that the amount has actually been transferred to their account²².

It is also defined as a tripartite instrument processed electronically, either wholly or partially, containing an order from a person called the drawer to the drawee bank to pay a sum of money to the order of a third person called the payee²³.

In this sense, the electronic cheque is nothing more than a digital alternative to the ordinary paper cheque, issued using an electronic tool and signed with an electronic signature. It therefore enjoys the same legal force as the paper cheque in countries that recognize electronic signatures²⁴, and is subject to the same legal provisions governing the ordinary cheque, as well as to the rules of banking custom in matters not expressly provided for.

The concept of the electronic cheque relies on the existence of an intermediary to complete the clearing process, represented by the clearing entity (the bank) with which both the seller and the buyer have accounts, each with a defined electronic signature registered in the bank's electronic database.



The electronic cheque has several characteristics that distinguish it from other means^{25 26}:

1. It offers significant savings in operating fees, thereby reducing the expenses borne by the cheque holder.
2. Payments through electronic cheques are settled in a very short period (often only 48 hours) compared to ordinary cheques.
3. The use of the electronic cheque eliminates some of the problems faced by ordinary cheques, such as loss, theft, and forgery.

SECOND REQUIREMENT: PROCEDURES FOR THE CIRCULATION OF THE ELECTRONIC CHEQUE

The use of the ordinary cheque based on paper media has led to the extensive means employed in its processing between banks and financial institutions, in addition to the intensive use of paper, which takes a long time to process.

Accordingly, in order to reduce these drawbacks, a system for exchanging cheque images via computer was introduced, as was the case in France, which established several exchange centers for digital recordings and implemented the CRIEC system, which relies on the electronic transmission of cheques. Under this system, the electronic cheque is most often settled within 48 hours after being received by the bank.

A national system for the circulation of the electronic cheque was also established: *Système National d'Echange d'Images Chèques – SNEIC*, to reduce the time between the receipt and payment of the electronic cheque and between banking transactions, which could alter the current economic balances²⁷.

The use of this type of electronically processed cheques requires the establishment of special software for that purpose, which is operated through multiple stages with very short time intervals between them, summarized as follows²⁸:

1. The buyer subscribes with an entity that carries out the clearing process (most often a bank), where a current account is opened with the buyer's



funds, and the buyer's electronic signature is defined and recorded in the bank's database.

2. The seller subscribes with the same clearing entity, where a current account is also opened or linked to any existing current account of the seller, and the seller's electronic signature is defined and recorded in the bank's database.

3. The buyer selects the goods or services they wish to obtain from the seller who is subscribed with the same clearing company, and the total price and method of payment are agreed upon.

4. The buyer issues an electronic cheque containing: the cheque number, the name of the payer, the payer's account number and bank name, the name of the payee, the amount to be paid and the currency unit used, the expiry date; it is then signed with the encrypted electronic signature and sent via secure email to the seller.

5. The seller receives the electronic cheque signed by the buyer, signs it as the payee with their own encrypted electronic signature, and sends it to the bank.

6. The clearing entity reviews the cheque and verifies the validity of the balances and signatures, and based on this, notifies both the buyer and the seller of the completion of the financial transaction (debiting the buyer's account and crediting the seller's account).

It is worth noting, with regard to the use of the magnetically-based electronic cheque, that in this case bank cheques are issued in different colors, made from paper mixed with other materials such as plastic. These cheques consist of two sides: a front and a back. The front side carries printed visible data, while the back side contains a magnetic strip with invisible encrypted data read by a dedicated reader device. This device verifies the authenticity and integrity of these cheques and ensures they contain no forgery or unauthorized alterations, by comparing the visible data with the invisible data. In this type of cheque, there is always an existing balance in the drawer's account with the drawee.

These cheques are of three types:

First type:

The maximum amount that can be withdrawn by the electronic cheque is limited and cannot be exceeded, by placing a prepaid and frozen amount in the



drawer's account covering the maximum value for the number of cheques granted by the bank. The balance contains an amount equal to the number of cheques multiplied by the maximum value of each cheque, and the drawer may not issue a cheque whose value exceeds the balance in their account²⁹.

Second type:

This cheque contains, in both its visible and invisible data, a statement of the fixed value of the prepaid and frozen amount in the drawer's account, in addition to other data. This statement is not present in the first type, and in this case, the payee can know the maximum amount deposited in the drawer's account.

Third type:

Unlike the first and second types, where the electronic chip of the cheque is destroyed once it is passed through the reader device, this type can be passed again through the reader device for endorsement, so that the endorsee can verify the existence of the balance frozen for their benefit.

From the above, we find that this type of cheque is initially issued on a paper medium, which is then passed through a reader device. After that, the process shifts to the electronic mechanism, whereby the information on the magnetic strip is transferred to the computer for subsequent electronic clearing. The partial electronic processing of the data appears first when the cheque is passed through the reader device, which is an electronic device that operates using electronic chips that read the encrypted information on the magnetic strip. Partial electronic processing also appears when conducting electronic clearing between banks, which relies on the electronic transmission of the cheque between banks using special communication channels via the Internet.

Conclusion

In the end, with regard to Algeria and according to what is observed in practical reality, we find that electronic banking operations are still significantly lagging behind compared to developed countries, which have witnessed substantial progress in this field. The various challenges facing digital technology or electronic banking apply fully to the reality of Algerian banks, given the numerous problems and obstacles they encounter.

This necessarily requires the adoption of the various proposed legal solutions in order to advance the banking sector in general and to activate the role of



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electronic digital technology in particular, thereby improving the quality of services and the various banking operations provided by these banks to their clients. In Algeria, we find that efforts are being made and measures are being adopted to promote the digital economy³⁰, embodied in the legal and legislative frameworks, particularly in Electronic Commerce Law No. 18-05 of 10 May 2018³¹. This is because e-commerce activities and the legal relationships arising in its environment raise many legal challenges regarding the impact of using electronic means in carrying out electronic transactions.

Electronic commercial instruments, despite all the numerous advantages they offer and the procedural steps they undergo, cannot completely and immediately replace paper commercial instruments. They must go through multiple stages before they can be widely adopted.

Foremost among these stages is the generalization of the use of new information technologies among various entities and individuals, in order to activate the role of electronic commercial instruments, especially the bill of exchange and the electronic cheque. The latter are considered an extension and development of traditional commercial instruments, which are still in the developmental stage and have not yet taken their final form. In addition, banking legislation remains inadequate in addressing all matters related to them, particularly the new Monetary and Banking Law No. 23-09, which has not regulated them despite their importance. This perhaps explains the absence of their use in Algeria compared to traditional commercial instruments, especially cheques. This situation requires the adaptation of legal rules to keep pace with the tremendous development in the technical and digital fields, especially in the banking sector.

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