



The intelligent and digital payment system between the advantages granted to the customer and the surrounded risks

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Abstract:

The legal and regulatory challenges related to smart cards in Algeria are vital for e-commerce development. It is necessary to develop strong legal frameworks and raise awareness of users on safety issues. This includes the need to fight identity theft, money laundering, and crimes associated with electronic data.

To enhance consumer confidence and facilitate the use of electronic payments, strong safety measures must be adopted and the creation of a clear organizational environment. This requires better cooperation between actors in the financial sector, organizational authorities and users. By proactively addressing these issues, Algeria can improve the safety of payments and enhance its digital economy .

Keywords: Cartes à puce, Commerce électronique, Blanchiment d'argent, Données électroniques, Paiements électroniques.

Introduction:

With the entry of the world in a new context known as digitization and information, and the review of the boom that occurred in the field of media technology and remote communication, it was obligatory for banks and financial institutions to be the first towards the maximum benefit, which provided by these modern technologies, which enables them to provide new mechanisms for payment methods And developing the quality of its services to improve the level of

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challenges that enable it to continue in the era of globalization and the emergence of trade and electronic banks

Electronic payment methods have appeared as a result of technological development and as a solution to the problems and obstacles produced by traditional payment means, and modern means have already known a speed in spreading, and the great efforts made by banks were helped to attract the largest possible number of customers and made them test credibility, The effectiveness and advantages of these modern means.

With the emergence of these means, opinions began to contradict the possibility of replacing them with traditional means, so that the means are stripped of their physical or paper character, and the electronics are relied upon.

On the other hand, there were other opinions, it is likely that traditional payment methods are not disappeared in light of the emergence of modernity that have not yet been gained in full confidence due to its events, in addition to the distinction of that traditional, the customers' return to a complete system that they see its hidden through the legal system that regulates its provisions.

In the context of the foregoing, we will try to evaluate electronic payment means, and to search in the positive aspects that they give their use, as well as other aspects that constitute obstacles that limit their acquisition of the confidence of all economic agents and that they have the status of traditional means.

On this basis, we decided to divide this research paper into two topics:

First topic: Electronic payment advantages

A second topic: electronic payment risks

To start with an introductory research, in which we address the concept of electronic payment, and its types.

We should start with a preliminary study, where we discuss the concept of electronic payment and its types.



First Topic :The Concept of Electronic Payment and Its Types

Order 03-11 concerning cash and credit is the first Algerian law to include modern electronic transactions in the banking sector, which is evident through Article 69 which states: "Payment means are considered as all instruments that enable any person to transfer their funds, whatever the security or technical method used." This text reveals the intention of the Algerian legislator to transition from classic payment methods to modern electronic payment methods.

Furthermore, the legislator used the term "electronic payment means" in Article 3 of Order 05-06 dated August 23, 2005, regarding the fight against smuggling, where the legislator considered it among the preventive measures and procedures to combat smuggling.

Thus, the legislator moved from the term "whatever the security or technical method used" mentioned in Article 69 above to a more precise term represented in the electronic payment means mentioned in Article 3 of the said order.

By virtue of Law 05-02 dated February 6, 2005, the legislator added a third paragraph to Article 414 concerning the settlement of the draft, which states: "...circulation can be done by any specified electronic exchange means within the legislation and regulation in force."

The same paragraph was also added to Article 502 on the occasion of presenting the check for settlement¹

Additionally, by virtue of Law 05-02 dated February 6, 2005, the legislator added a fourth chapter to the fourth book of the Commercial Law titled "Commercial Papers," of which the third section includes debit and credit cards in Article 543 bis 23, thereby considering the Algerian legislator that cards are modern commercial papers added to the known classic commercial papers, which are the draft, check, and promissory note.

It is clear from the above that the legislator has created a system of electronic settlement with its broad concept. Next, we will try to shed light on the concept of electronic payment and then move on to define the means and types of electronic payment, through two successive demands.



First Demand: The Concept of Electronic Payment

Electronic payment means on the internet are the electronic conventional image or method of payment that we use in our daily lives. The fundamental difference between the two is that electronic payment methods are entirely processed and managed electronically, with no presence of money transfers or cash coins.

Defining electronic payment requires us first to define the term "electronic" (First Section), and then we will address the essence of electronic payment technology (Second Section).

First Section: Definition of the term "Electronic"

Western legislations have provided numerous definitions of the term electronic. For instance, in the United States Uniform Commercial Code, the term "electronic" is defined as: "Of or pertaining to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities."

As for the French law, the term electronic also has a broad meaning, encompassing all sectors of remote communication. A part of the commercial doctrine defines electronic commerce as: "The use of all sectors of remote communication."

Second Section: The Concept of Electronic Payment Technology

The Uniform Commercial Code in the United States defines a transfer issued by a banking originator as: "A series of steps initiated by a transfer order issued by the beneficiary with the intention of payment to the beneficiary of the order, which can be conducted verbally, electronically, or in writing and this includes any order issued by the ordering bank or an intermediary bank aimed at executing the transfer order from the ordering party, where the transfer is completed by the beneficiary bank accepting to pay the transfer value for the benefit of the beneficiary specified in the order."

Many Arab legislations have defined banking transfer technology as: "A contract between the ordering party of the bank transfer and the bank issuing the



transfer, by which the latter agrees to pay by itself or through another party an amount of money equivalent to the transfer value to the beneficiary against an agreed commission."²

Article 2 of the Tunisian Electronic Commerce Law defines electronic payment means as: "The means that enable its owner to carry out direct payment operations remotely through the public communication networks." Electronic payment means have also been defined as: "An operation through which the monetary value is exchanged for goods, services, or information, using an intermediary to facilitate the exchange process, such as a bank."

Furthermore, there are many definitions of electronic payment that keep pace with the conditions and requirements of electronic commerce. The Model Law on International Credit Transfers, issued by the United Nations Commission in 1992, defines bank transfer as: "A series of operations that begin with a payment order from the ordering party with the intention of making the value of the transfer available to the beneficiary."

The French Economic Council defines electronic payment as: "A set of informational, magnetic, or electronic technologies that allow the transfer of funds without paper support, resulting in a tripartite relationship between the bank, the seller, and the consumer."

Electronic payment is defined as: "A process of transferring funds that fundamentally represents the price for a good or service in a digital manner, meaning using computer devices, and transmitting data through a telephone line, a network, or any method of data transmission."³

Second Demand: Types of Electronic Payment

There are numerous and rapidly evolving electronic payment methods, so we will focus on the most important ones:

Firstly: Electronic Bank Transfer

The definition of electronic bank transfer is not different from that of a regular bank transfer, except for the existence of electronic means that allow for



the operation to be carried out remotely, and which take place within a contractual relationship between financial institutions.

Both doctrine and legislation have focused on its definition, where the Electronic Funds Transfer Act in the United States defines electronic bank transfer as: "A funds transfer operation initiated or executed through an electronic means such as telephone, computer, or magnetic tape for the purpose of ordering, instructing, or authorizing a financial institution to process a debit or credit entry into an account."

The law further defines electronic communication as: "The electronically sent message between the client and the financial institution in a manner that allows for displaying and viewing the text by means of a display such as a computer screen." This definition appears to be the only legislative definition available for the contract of electronic bank transfer. In general, the meaning of electronic transfer refers to the act of transferring a specified amount from the debtor's account to the creditor's account, a process that requires the intervention of an intermediary to complete the payment procedures between the client's and the merchant's banks.

It is worth noting here that Order 03-11 related to cash and credit and by examining its texts, especially Article 51, which states that: "The Algerian bank may conduct all banking operations with banks and financial institutions operating in Algeria and with all external central banks." Thus, we can conclude that electronic bank transfer is a legal operation provided for in the Algerian banking system, based on the phrase: "all operations" mentioned in the aforementioned article, which is considered a leap towards the development of the Algerian banking system, and the advancement of its activity techniques between financial institutions and banks.⁴

Secondly: Electronic Check

The electronic check is the electronic equivalent of traditional paper checks and is a verified and secure electronic message sent by the check issuer to the recipient for endorsement. The recipient then presents it to the Internet bank, which first transfers the financial value of the check to the account of the check bearer, then cancels the check and returns it electronically to the recipient as proof that the



check has indeed been cashed. The check recipient can verify that the amount has been actually transferred to their account.

Thirdly: Electronic Payment Cards

These are the plastic and magnetic cards issued by banks to their clients for transactions in place of carrying cash. They are rectangular plastic cards that bear the name of the issuing institution, its logo, and the cardholder's signature, and prominently feature the card number, cardholder's name, account number, and expiration date. These modern payment methods have surpassed the features offered by traditional payment methods, leading to their widespread adoption across different countries of the world.

The French legislator defined payment cards in Article 57-1 of the legislative decree dated 30-10-1935 as: "Any card that allows its holder to withdraw or transfer money, and can only be issued by a credit institution, financial establishment, or an authorized service such as banks, the treasury, postal services."

Fourthly: Smart Card

The development of smart cards is one of the most significant innovations in the card payment sector. They are standard-sized plastic cards that contain memory chips operated by a microcomputer, ⁵providing much larger data storage capacity compared to magnetic stripe cards, though at a higher cost. These cards contain a microprocessor that allows for storing money through secure programming. Smart cards can interact with other computers and do not require authorization or confirmation of the card's validity to transfer funds from the buyer to the seller. Innovations in processor technology will consistently reduce error rates in the future. The processors in smart cards can ensure the integrity of each transaction against fraud. When the cardholder presents their card to the seller, the microprocessor in the seller's electronic cash register verifies the integrity of the smart card by reading the digital signature stored in the card's processor. This digital signature is created through a cryptographic algorithm, which is a security program stored in the card's processor. This program confirms to the electronic cash register that the smart card is authentic and has not been tampered with or



altered. Thus, the open smart card system for electronic money transfers allows the cardholder to remain anonymous for buying and selling, much like cash. The user does not need to prove their identity or perform transactions through costly communication services. When a smart card user makes a purchase, the purchase value is automatically deducted from the buyer's card and deposited into the seller's electronic devices. The seller can then transfer the total sales proceeds to their bank via telephone connections. This process allows transactions to be completed within seconds.

Fifthly: Credit Cards

Credit cards are often referred to as "plastic money." They are special cards issued by a bank to their clients enabling them to obtain goods and services from certain shops and locations upon presenting this particular card.⁶

This medium operates on the basis that a financial institution or investment company issues high-tech, tamper-resistant manufactured cards. The cardholder can present it to the seller when buying goods, and the seller then notes the card details on an invoice, which is issued and signed by the cardholder to be sent to the bank as an accreditor for that card to satisfy the purchase. Afterwards, the cardholder repays the bank within an agreed period, including any interest due.

Banks do not issue these cards except after ensuring the suitability of the client or following the provision of adequate tangible or personal guarantees by the client.

Credit cards are issued by major international institutions, including Visa International, based in Los Angeles, California, USA, and MasterCard, headquartered in the United States.

From the above, it is evident that there are two types of payment cards. The first type allows the holder to satisfy the cost of goods and services obtained instead of cash payment, up to a certain amount without granting credit; examples include the "Blue Card" in France and the "Visa Electron" in the United Arab Emirates.



The second type provides the holder with actual credit from the bank issuing the card. The holder is not immediately obliged to repay but has the right to credit facilities agreed upon in terms of discount time, the maximum allowed amount, payment dates, etc. This type of plastic card is called a credit card, such as "Visa," "MasterCard," and "American Express."⁷

Chapter One: The Advantages of Electronic Payment

The widespread adoption of electronic payment systems reflects the advantages and convenience they provide to customers. These systems have positive attributes and characteristics that distinguish them from traditional systems, making some people prefer them. Despite the novelty of electronic payment methods, it is possible to evaluate them and deduce the factors that have contributed to their success.

Accordingly, we will try to identify the factors that have contributed to the success of electronic payment methods through the first requirement of this chapter, before discussing the advantages of electronic payment methods in the second requirement.

Requirement One: Factors Contributing to the Success of Electronic Payment Methods

Several factors have contributed to the success of electronic payment methods and their replacement of traditional ones, especially with the advent of the internet and the expansion of the field of e-commerce, which has supported the process of electronic payment. We will try to summarize the remaining contributing factors as follows:

Subsection One: The Emergence of Electronic Banks and New Banking Services

With the presence and widespread use of the internet, and its exploitation in the field of electronic commerce, so-called electronic banks have emerged.

An electronic bank is a bank that has a complete presence on the internet and its website contains all the necessary software for banking operations. This bank



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allows the customer to conduct all his bank-related business from any location through a line provided by the bank, which allows him to complete all his transactions without the need to personally go to the bank's premises.

These electronic banks offer several advantages and benefits, which can be summarized as follows:⁸

1- Payment Organization: The agreement on the time of deduction and the settlement of financial transfers ensures the organization of payment operations without any doubt in the ability to repay on time.

2- Workflow Management: The process of automated bartering eliminates the need for the client to increase the bank to deposit the value of financial transfers, which means streamlining work and enhancing its effectiveness.

3- Safety and Security: Electronic financial transfers have removed the fear of stealing paper checks and the need to transfer cash.

4- Reducing Paperwork: There is a reduced reliance on paper forms, traditional checks, and other paper transactions.

5- Increasing Customer Satisfaction: The speed and low cost of electronic transfer operations ensure customer satisfaction.

6- Cost Savings: The process of opening a bank branch includes operating expenses, such as the cost of purchasing and furnishing the location, labor costs, maintenance, and others. However, such expenses are completely non-existent in the case of electronic banks.

It's not just electronic banks that use the internet; regular banks also provide electronic financial services through this network, leading to the emergence of new banking services and the growth of electronic banking transactions.

Given that electronic banks and electronic banking transactions are conducted over the internet, it is natural to deal with electronic payment methods, which encourages the use of these means in addition to the new banking services that require dealing with them. One of the most important of these services is electronic



banking through ATMs to reduce the number of transactions inside the bank, as well as banking via mobile phones, where so-called cellular banks have emerged, which are based on the idea of providing banking services to customers anywhere and anytime.

Subsection Two: Leveraging Internet Security Measures

Modern payment methods differ from traditional ones by utilizing internet security measures, which have helped to increase their proliferation. These methods serve as a technical protection for electronic payments as a whole. Professor Mohammad Dabas Al-Hamid defined the technical protection method as: "Protection of all types of information and sources of tools that are dealt with and processed by an organization and computer rooms, storage media, and individuals from theft, forgery, damage, loss, and breaches."

The non-physical nature of electronic payment has necessitated the development of technical mechanisms to protect electronic payments, as well as security measures provided to users to ensure the highest possible level of trust through their use, thereby encouraging their success through widespread use in all financial and commercial transactions. These technologies involve the use of secret numbers, electronic and digital signatures, encryption of information and data transmitted over the line, and the development of secure programs that customers are advised to use, known as secure protocols.

Subsection Three: Emergence of Global Organizations and Financial Institutions in the Field of Payments

Among the factors contributing to the spread of electronic payment methods is the emergence of global organizations and financial institutions that have become leaders in producing and marketing these methods to various countries around the world, and the card issuers, which are among the most famous electronic payment methods.

Some of the most prominent global card-issuing organizations include Visa and Mastercard. As for global financial institutions that themselves oversee the



issuance of bank cards without the need to grant licensing rights to any bank, we can mention American Express and Diners Club.⁹

Requirement Two: Advantages of Electronic Payment Methods

The advantages of electronic payment methods can be summarized as follows:

Subsection One: Advantages of Bank Cards

Bank cards offer several benefits and advantages whether for the cardholder, the issuing bank, or even the merchant.¹⁰

Advantages offered by bank cards for the cardholder:

Bank cards provide their holders with many features and services that are beneficial during transactions, with the most important advantages being:

- Security: The card avoids the need for the client to carry cash, which comes with the risks of theft or loss.

- Flexibility: The card gives the holder flexibility in obtaining their needs for cash liquidity, goods, and services from various sources anywhere in the world, at any time, and in any currency.

- Distinctive status in society: Cards are a sign of progress, so they give the holder a special status, social prestige, personal satisfaction, and great confidence in the transactions carried out using them.

Advantages offered by bank cards for the issuing bank:

The issuance of bank cards brings several benefits and profits to the bank, which can be summarized as follows:

- The size of the return on the bank card system is large relative to its costs.

- Bank cards are an easy and precise way to settle transactions between different banks regardless of the location of completion and the currencies used.



- They are a profitable source through fees collected by the bank for subscription, compound interest on payment settlements for financial and cash operations, and the commissions charged to merchants, in addition to punitive rates as a result of the client's delay in payment...

Subsection Two: Advantages of Smart Cards:

Smart cards are considered more secure than regular bank cards, which has led many banks to use them as a replacement. In addition to many other advantages, we summarize them as follows:

- Smart cards are superior to magnetic strip cards because the latter has an error rate of 250 per million transactions, while smart cards have an error rate of up to one in a hundred million transactions.¹¹

- Smart cards are less expensive compared to other means.

- They have the capability to store more than 100 times the amount of information than a magnetic strip card.

- They are difficult to forge; unlike magnetic cards, smart cards cannot be easily read and are difficult, if not impossible, to duplicate.

Subsection Three: Advantages of Electronic Money:

The advantages of electronic money can be summarized as follows:

- Privacy: The buyer can make purchases without having to provide any personal information.

- Security: The digital currency system provides the highest possible levels of security by relying on innovative security measures to protect financial information used on the internet.

- Lowered Costs: There are no clearing or settlement costs because the process is automatic.



- No Boundaries: Electronic money can be transferred from anywhere at any time, relying on the internet, which recognizes no geographical or political boundaries, without affecting the cost.

Subsection Four: Advantages of Electronic Funds Transfers

With technological advancements, the process of money transfers has become electronic, a shift from the previously complicated and time-consuming bank procedures. The electronic money transfer has several other advantages, which are as follows:

- Reduction or elimination of services provided by cashiers related to the collection of checks.

- Minimization of check processing expenses due to the non-utilization of paper checks.

- Decreasing the services offered by banks for the settlement of current accounts with companies and individuals, as the introduction of the electronic system replaces the use of paper checks from company to company and from the company to customers. Accordingly, the need to prepare account settlement statements is reduced according to the usage of automated systems.

Immediate Availability of Cash: This system improves cash flow and also accelerates the cash cycle.

Subsection Five: Advantages of Electronic Checks

Electronic checks have several advantages:

- They offer a 50 percent reduction in operation fees compared to bank cards.

- Payments settled through electronic checks are completed in just 48 hours compared to regular checks, which take longer to settle through clearing.

- Eliminates problems of regular checks such as loss and delay.

second topic: Risks and Disadvantages of Electronic Payment



Electronic payment methods have achieved many advantages that traditional methods have not, as they reduced costs, lessened customer suffering, and appreciated the value of time. They even encouraged banks to offer new services that are in the public interest for both banks and customers. However, there are several factors that hinder the progress and development of these modern methods and lead to the public's evasion and fear of using them (first demand), and these methods are not perfect, as they have created several problems and challenges (second demand).

First Demand: Factors Hindering the Success of Electronic Payment Methods

There are a number of factors that hinder the success of electronic payment methods and lead to a lack of trust in these modern means. Despite the success, comfort, and advantages achieved by these methods, there are factors that have made this success incomplete. A type of crime has emerged against bank cards and information technology, resulting in risks stemming from dealing with modern payment methods.

Subsection One: Cybercrimes and Risks of Electronic Transactions

Cybercrimes are modern crimes that have spread recently and are characterized by their disregard for geographical boundaries. They are committed using computers through the internet by someone with advanced knowledge.

The emergence of electronic payment methods has contributed to the rise of this type of crime, which can be summarized as follows:

Identity Theft: This crime occurs when thieves exploit someone's personal data on the electronic network to the worst extent in order to obtain credit bank cards. This data allows them to apply for a bank card online, often through entities that do not take strict security measures on the network.

Card Number Theft Crimes: The theft of card numbers over the internet has become an easy process, which has led to an increase in incidents followed by extortion to return those numbers or to prevent their use.



Money Laundering Using Bank Cards: Money laundering is the process of converting the illegitimate source of money, such as from drugs, into money with a legitimate source, such as car trade. One of the simplest methods of this process is to withdraw large sums in installments from an ATM in a foreign country. Then, the bank branch that made the withdrawal requests the transfer of the amount from the branch that issued the card. The transfer occurs by deducting the amount from the customer's balance, who would have evaded the transfer fees and managed to launder their money.¹²

Electronic Force Theft Crimes: This involves using the computer to manipulate information by entering false data from the side of the fraudster by fabricating creditors such as salaries that must be paid or bills that must be settled, through the creation of fictitious debtors who must pay bills issued by the computer. The attacked debtor will not be able to prove that they are not indebted because of the presence of informational bills, and thus the fraudster exploits automated payment methods to obtain illegitimate money.

Bank Card Crimes: With the increasing use of bank cards, the methods of fraud in their use have multiplied and varied. The crimes committed using these cards can be divided into those committed by the cardholder and those committed by others.

First: Crimes Committed by Customers Due to Misuse of Bank Cards

The customer, who is the owner of the card, can use it to commit crimes that are contrary to the contract concluded between them and the bank. These actions, of course, are aimed at obtaining money by any means. Some of these crimes or violations include:

1. The cardholder overdraws from the ATM: This crime occurs when the cardholder withdraws an amount exceeding their bank balance or the maximum limit permitted.

2. Abuse of the debit card: A customer may purchase goods or services exceeding the amount guaranteed by the bank or issuing entity as the maximum, or



the customer buys goods and services not exceeding the guaranteed amount but surpassing the balance in their account.

3. Using an expired card: Each card has a specific expiry date, and after this period, the customer should return it to the bank or the issuing entity either to renew it or to discard it. If this is not done, some consider it a crime, as ruled in France.

4. Using a canceled card: Sometimes the bank may cancel the card and stop its operation. Accordingly, it requests the customer to return it. If the customer refuses to do this and continues to use it, it is considered an infringement on others' property because the customer misleads others into believing they own the card and have a financial credit at the bank supported by the certificate issued by the bank which grants credit to the customer.¹³

Second: Crimes Committed by Others Due to Misuse of the Electronic Card

Others can also commit crimes using cards, as follows:

1. Use of a stolen or lost card by others: The thief or finder of the card may use it to withdraw money from an ATM, or to obtain goods and services from merchants. This act is considered by some countries a crime and is treated as fraud.

2. Withdrawals with a counterfeit electronic card: Others may forge payment or debit cards using stolen credit card details, replace its data, sometimes even by colluding with the cardholder who allows others to use their card for withdrawals and forges their signature. Then, they may dispute the withdrawal and challenge the signature so that the amount is not deducted from their personal account.

Most of the fraud involving cards occurs in the United States, and card crimes have multiplied even over the internet. There are now international gangs active on this network aiming to collect as many card numbers as possible, which has made e-commerce not as successful as expected. This is due to consumers' reluctance to disclose their personal data and use their cards on an open network, which calls for punitive laws that provide full penal protection for cards as a payment tool.



Second Demand: New Challenges Posed by Electronic Payment Methods

Electronic payment methods are not perfect; while they have many features and advantages, they also suffer from flaws and risks which affect their reputation among the public. This leads to caution and care when using them. The most important risks and flaws of these methods can be summarized as follows:¹⁴

SubsectionOne: ChallengesFacingElectronicMoney

Electronic money faces security risks as well as legal ones.

First: Security Risks of Electronic Money

A security breach of electronic money can occur either as a result of deliberate criminality, such as forgery and counterfeiting, or as a result of unintentional actions such as erasing or vandalizing a website, or from flaws in the design of electronic systems and cyber piracy. All these acts and threats can lead to serious legal, security, and financial effects. It is important that the entity issuing electronic money ensures all security guarantees are in place for both the consumer and the merchant, whether the electronic money takes the form of plastic cards or is used over the internet.

Second: Legal Risks of Electronic Money

These risks arise from violations of laws and regulations such as money laundering crimes, disclosure of client secrets, and breaches of confidentiality. On the other hand, these legal risks also arise when the rights and obligations of the parties dealing with electronic money are not accurately regulated.¹⁵

Consumer protection is considered one of the most significant legal risks that may arise from electronic money. Additionally, the spread of electronic money is expected to lead to an increase in tax evasion crimes, as it will be difficult for government agencies responsible for tax collection to trace taxes on transactions made with electronic money, since these transactions occur covertly over the internet.

Subsection Two: Challenges Facing Bank Cards



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In addition to the crimes committed against bank cards, which have been mentioned earlier, they also pose a set of flaws and problems for both the cardholder and the issuing banks. The most significant of these issues are:

1. Limited effect of cards in stimulating long-term consumption, as increased consumer capacity depends more on the growth and constraint of an individual's real income rather than on the means of payment.
2. Risk to the bank's liquidity due to the large volume of transactions.
3. Intense competition faced by banks from entities that issue their own cards, such as gas stations, which may reduce the number of customers dealing with the bank.
4. For Islamic countries, credit cards are subject to certain Shariah prohibitions, such as the interest that the bank charges for late repayment, and the commission that the bank collects from merchants, which some scholars consider to be forbidden interest.

Subsection Three: Legal and Regulatory Challenges of Smart Cards

From a legal perspective, smart cards are not subject to commercial laws that regulate checks, transfers, etc., because they don't involve the use of a written instrument, which raises proof issues.

These cards bring up issues related to patent procedures by card issuing institutions and their suppliers, in addition to intellectual property affairs and technology licensing.¹⁶

Conclusion

The most significant issue with modern payment methods is the rapidity of their spread without accompanying legal regulations that match their challenges, nature, and specificity. They are not yet subject to a unified legal regulation like traditional methods, leaving them subject to many problems and disputes that require quick resolution. Another issue is the evidential credibility since payments are made electronically without the need for paper documents.



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Furthermore, there has been an increase in cybercrimes associated with these methods, attracting criminals and hackers who work on breaking encryption systems, spreading fake websites, and releasing viruses that damage payment systems. This leads to public apprehension towards these modern methods and explains the persistence of traditional payment means and why they have not disappeared, especially as the current focus is on developing and modernizing traditional payment methods by exploiting technological advancements. For example, electronic clearing systems and electronic processing of certain negotiable instruments like magnetized promissory notes have appeared.

In conclusion, to accelerate the advancement of electronic commerce in Algeria through the creation of electronic payment methods, it's not just about adopting global electronic payment cards, it goes beyond that. It involves creating a suitable environment for dealing with these methods by following measures such as:

- Establishing legal and legislative frameworks that govern electronic financial transactions.

- Providing necessary information about the available and accessible electronic payment methods in Algeria, through advertising in various media.

- Implementing procedures and mechanisms to restore trust between the Algerian banking system and its customers.

- Providing media coverage to raise awareness about the use of electronic payment methods.

- Relying on leading experiences in the field of electronic payment.

- Providing guarantees for the secure use of these methods through international expertise to develop this area.

Writing conditions :



*The Simplified Arabic size Line 14 is used in the text. As for the addresses of the topics, requirements, and the branches, they are written in the same font, the size of 16 thick.

* Distance between lines 1 cm.

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