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ELECTRONIC BANKING: THE NEW FACE OF MODERNIZING THE ALGERIAN SERVICES SECTOR - REALITY AND PROSPECTS

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ABSTRACT

The banking sector is the engine of the economic fabric of countries, so Algeria has worked on successive reforms, the latest of which was the issuance of the Monetary and Banking Law of 2023, as a strategy to diversify the banking operations of banks and financial institutions.

The world of banking has witnessed a scientific transformation in terms of the dimensions and objectives of banks' strategies in the last few decades. This was a logical result of the revolution of new technologies in media and communication and the globalization of the financial and banking markets. Perhaps this is what led banking institutions in particular and financial institutions in general to move towards providing a new type of services in line with what has become characteristic of the banking market. Hence, some believe that banks must develop their performance in line with the surrounding conditions, embodying this development in electronic banking. This study aims to understand the reality of electronic banking in Algeria and the mechanisms for its implementation.

KEYWORDS

Electronic Banking, Electronic Payment, Electronic Banks, Service Sector

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Introduction.

Banks are considered the most important pillars of the national economy of various countries, due to the significant role they play in mobilizing public savings and making them available to state projects and investments. Therefore, receiving deposits and granting credit constitutes the primary activity of banks, but it is not their only activity. They also perform a number of other functions aimed at providing appropriate means to facilitate their dealings with their customers and attract a greater number of them, especially in light of the intense competition.

Recent decades have witnessed significant technological developments that have brought about significant changes in various sectors of economic activity, perhaps most notably the banking sector. Various banks have begun to intensify their use of the latest modern technologies, such as information and communication technology, computers, and the internet. They have adapted these technologies with high

efficiency to create innovative banking services and develop their delivery methods, seeking to keep pace with developments in this type of industry.

In this regard, Algerian banks have worked to modernize their financial and banking sector and adopt electronic banking in recent years through efforts to integrate information and communication technology into banking activities. Based on the above, this chapter will address the origins and concept of e-banking. We will also attempt to address and clarify the manifestations of e-banking in Algeria and the mechanisms for its implementation.

Section One: The Origins and Concept of E-Banking.

The astonishing and rapid spread of the Internet has led to fundamental changes in the nature of the banking and financial sector, providing it with modern mechanisms that have made it more flexible, dynamic, and expeditious in providing its services. E-banking has emerged, leveraging information and communication technology to develop systems and methods for providing banking services, and to create new banking applications characterized by efficiency and speed of performance, in line with the rapid development of the banking industry.

First Requirement: The Origins of Electronic Banking.

Some trace the emergence of electronic banking to the 1970s, when banks began offering their services over the phone to check balances, transfer funds, and pay bills. In the 1980s, advanced tools such as cable television and personal computers emerged, enabling home banking, thus resolving the limited availability of telephone systems. With the significant development of information and communication technology and the Internet, banks found the ideal way to display transactions related to financial accounts without moving cash.

In 1995, Netscape developed the first program that allowed access to websites, and online banking became possible. SFNB was considered the first online American bank in the world. The first virtual bank appeared in the mid-1990s in the United States, followed by the rapid emergence of similar banks in other regions of the world, especially since managing a virtual client is less expensive than managing a traditional customer.

Second Requirement: The Concept of Electronic Banking.

The world of financial intermediation has witnessed qualitative transformations that have altered the objectives and strategies of banking operations. This is due to the technological revolution in information and communication and the globalization of financial and banking markets. Electronic banking or electronic banking are two concepts that convey the same meaning: providing high-quality and efficient banking services.

Based on the above, electronic banking can be defined as:

"All activities and operations conducted, executed, or promoted via electronic means, such as telephones, computers, automated teller machines (ATMs), the internet, digital television, etc., by banks or institutions that handle electronic money transfers."

It also means "conducting banking operations electronically, the most important of which is the internet, whether for withdrawals, payments, credit, or other purposes. Under this type of banking, the customer is not required to visit the bank's headquarters and can conduct their various banking transactions from anywhere and at any time."

Another definition of e-banking is "various financial transactions between financial institutions, individuals, commercial companies, and governments using modern methods, derived from information and communication technology and continuous innovations as tools to achieve this." From the previous definitions, we conclude that e-banking represents the provision of diverse banking services using information and communication technology, utilizing various electronic tools such as automated teller machines (ATMs), mobile phones, personal computers, etc., enabling customers to benefit from them anytime, anywhere, at a very high speed, at a lower cost, and without any hassle.

The emergence and rapid development of e-banking has resulted in a number of advantages, the most important of which are the services it provides through various electronic distribution channels such as ATMs, banking phones, and others. These channels provide customers with comprehensive banking services, from the customer's selection of the service through the completion procedures and the final payment electronically. The most important electronic distribution channels that provide banking services are:

A- Automated Teller Machine (ATM):

This is the most widespread electronic service. ATMs emerged in the 1980s as an alternative to teller staff at bank branches, with the goal of reducing transactions within the bank. They rely on dedicated devices for customers to conduct various financial transactions automatically, without having to visit the bank's headquarters. These devices rely on a communications network that connects the branches of a single bank when they serve any customer from any bank.

An ATM can be defined as "those devices that can be deployed in various locations, whether wall-mounted or independently, and are connected to the bank's computer network. Customers use plastic cards or smart cards to obtain various services, such as cash withdrawals, cash deposits, and others."

Since their introduction, these machines have become a daily necessity in modern banking operations for individuals, providing them with a range of services, such as cash withdrawals, cash deposits, check deposits, bill payments, account statement requests, and other services.

B- Mobile Banking (Mobile Banking) :

The proliferation of mobile phones has led to a rapid development of services, particularly banking. Banking services available via mobile phones are similar to those provided via landlines, but they differ in that they are delivered via data and written text. This channel provides customers with banking services anywhere, at any time, by using their PIN, which allows them to access their account and benefit from the following services: balance inquiries, viewing offers from other banks, consultations and advice regarding loans and facilities; transferring balances from one account to another; and inquiring about currency rates and interest rates. Since the launch of mobile banking services, there has been a remarkable and significant development in the use of communication media and protocols and information exchange in the banking environment.

C- Phone Banking:

Banks use phone banking to avoid long queues when inquiring about their accounts and various other banking services. This service allows customers to conduct various transactions, including information services, transferring funds from one account to another online, requesting account statements, purchasing securities, and monitoring the stock market. This service operates 24 hours a day, 7 days a week, and relies on a network that connects all branches of the same bank. Contacting bank branches is done through a unified number.

Banks and customers have benefited from this service, with specialized call centers now available for customer service. This saves them many time-consuming services, in addition to cost savings. These services have evolved, especially in developed countries, and customers now feel a sense of privacy with their banks. These centers have helped foster a special relationship between the customer and the bank. These services have further developed with the introduction of automated emails to respond to customer calls.

C- Home Banking:

This represents banking services conducted through a personal computer located at home, at work, or anywhere else the customer is located. It is connected to the bank's computer, enabling the customer to obtain almost the same services as those obtained through a mobile phone.

C- Online Banking (Internet Banks):

Internet banks are the most widespread, comprehensive, easy-to-use, and important channels for distributing electronic banking services, thanks to the vastness of the Internet and the daily increase in the number of its users. Internet banks offer all the banking activities performed by traditional banks, such as checking balances, transferring funds, paying bills, and other activities. They also offer other advanced services such as:

- Electronic payment transactions,
- Viewing check and bill images,
- Life, personal, and commercial property insurance,
- Securities trading.

H- Electronic Point of Sale Services: "Point of Sale Services"

Includes various types of financial services for commercial payments in stores, such as check guarantees, direct payment, and electronic transfer from the buyer's account to the merchant's account using the customer's card and the merchant's device.

Section Two: Aspects of Electronic Banking in Algeria and Mechanisms for Activating It

Algeria has witnessed a late entry into an advanced vision and approach that is not comparable to countries in North America, Asia, and Europe, nor to countries and players in the Middle East and Africa, which are on par with them in many indicators of better social development.

First requirement: Reasons for the delay in adopting short-term banking in Algeria

The adoption of short-term banking in Algeria from Geneva, which led to the delay in using this type of banking in Algeria, is:

1- The fire of working on difficult tasks within the confines of the home, given that the field of electronic banking, in its broader sense, allows individuals and institutions to transact in currencies other than those related to the economy, and that the demand for local services and products abroad is increasing. Therefore, opening up greater freedom in electronic transactions leads to the end of the problem of working abroad, represented by the purchase of goods and services due to the significant benefits of this method. This will lead to a shortage of local supplies, i.e., the incoming flow of the business cannot cover the outgoing flow.

2- Fear of cyberattacks and weak information security, given that the field is primarily concerned with the financial system, and the broader issue requires greater caution and greater monitoring in this regard to enable banking. 3- The relative delay in improving the quality, speed, and stability of the internet network, which discourages customers from relying entirely on private electronic banking services, especially those related to the private sector, due to their unsustainability and the importance of time and availability.

4- Institutions' failure to keep pace with the latest electronic payment technologies through electronic payment devices.

5- The lack of clarity in financial transactions, and even their preference for traditional methods of dealing with them and coordinating financial dues with banks or other institutions.

To activate electronic banking in Algeria, there are a number of elements that must be addressed, represented by:

1- A new, exclusively Algerian diversification of the tourism sector, which will allow for the creation of a job demand that is approximately equal to the job supply, thus eliminating concerns about limited cash flow.

2- Improving the quality and techniques of media communications, ensuring consistent quality and always engaging with the local public sector.

3- Disseminating modern concepts of electronic payment and banking, both in terms of providing units accepting these mechanisms and increasing their capacity to generate greater demand for this service.

Second Requirement: Diagnosing the Reality of Electronic Banking in Algeria

Through a diagnostic of the reality of electronic banking in the Algerian banking system, it was found that it suffers from the following:

1- Weak use of bank cards: The weaknesses of bank card use in Algeria lie in the following:

- The small number of bank cards compared to the number of bank account holders in Algeria, which in 2014 amounted to approximately 7 million cards out of 24 million accounts.

- The small number of international bank cards (a very small number of MasterCard cards issued by Gulf Bank Algeria and Visa cards issued by some public banks), and the limited number of locations where they are used in the banking market, being limited to a few large hotels and some private business companies.

- The limited services when using bank cards, most of which are limited to checking the balance or withdrawing funds, without widespread use of local and international money transfer services.

2- Weak use of telephone banking in Algerian banks: With the exception of balance inquiry and payment of certain specific bills, Algerian banks do not use telephones to provide their services, whether fixed or mobile. This is despite the significant development witnessed by the latter following the opening of the Algerian market in recent years, and despite the large number of telephone service subscribers in Algeria, a network that could contribute to providing banking services to the largest possible number of customers.

The failure to invest in the telephone banking market in Algeria represents a significant missed opportunity for Algerian banks, given the size of the mobile phone market in Algeria, estimated at approximately 30 million customers by the beginning of 2016. This market could have been exploited to solve the liquidity problem facing both Algeria Post and commercial banks, in addition to generating profits while saving time, effort, and costs. 3- Lack of robust systems to address the risks of electronic banking: Considering the provision of electronic payment methods and relying on real-time gross settlement and electronic clearing

systems is insufficient for the successful implementation of electronic banking in Algeria, given that its management is limited to a few companies. Electronic transactions between banks are conducted without relying on robust electronic systems commensurate with the severity of the risks threatening them, including regulatory, legal, and reputational risks.

When monitoring and supervising banks, authorities must ensure that they have a sound administrative system and a clear, specific, and sufficient strategy to control these risks. The Basel Committee on Payments and Settlement Systems has developed a model for protecting the electronic money system, which includes ongoing internal accountability and oversight, separation of responsibilities, and information received by bank employees, in addition to examining the ongoing development of computer and information systems and the physical use of electronically transmitted information. 4- Limited online banking practices: Despite the planned future programs and repeated statements by bank officials in Algeria regarding the practice of banking using internet technology, its actual implementation has not made significant strides. This is due to the lack of cooperation and coordination between Algerian banks in the field of electronic industry, along with the lack of a culture of online shopping. The Algerian banking system remains behind in the use of modern payment technology and systems. There is no such thing as online banking, as most Algerian banks only have informational or advertising websites, not websites that provide services. No one in Algeria anymore talks about e-commerce, despite its global spread, due to the absence of the structural basis upon which it is based, namely online banking. Lack of a strong electronic communication network with international banks: Despite the efforts made by various Algerian banks to develop an electronic communications network with international banks, they have always remained lagging behind, slow, and unable to be managed and controlled. This is due to their reliance on imported solutions and systems that are not designed for the dimensions and characteristics of the Algerian market. This situation has provided a valuable opportunity for foreign banks operating in Algeria (Societe Generale, BNP Paribas, etc.) to attract the majority of customers seeking international electronic banking services, given their stronger network of connections with international banks than that of Algerian banks.

Despite the advantages of electronic banking, these advantages are not sufficient for its successful adoption by banks operating in the Algerian banking system. Rather, this depends on the availability of a set of requirements, which are as follows:

1- Providing the infrastructure: In order to provide the electronic banking infrastructure within the Algerian banking system, it is appropriate to take the following measures:

- Setting the objectives and priorities for incorporating electronic banking operations into the Algerian banking system.

- Establishing the legislative framework for electronic banking that clarifies all the obligations that must be respected by Algerian banks and their customers, and that defines the scope of government intervention in its practice.

- Formulating service and marketing policies for electronic banking in the Algerian banking system to suit the pace of the modern era, attract investment, and increase competition among banks locally and internationally.

- Regulating Algerian banks' commitments to adhere to the standards and specifications of distinguished electronic banking services, particularly those related to the security, confidentiality, and integrity of electronic information.

- Adopting expert systems in the field of decision-making by creating a specialized unit for what has become known as business economic intelligence, with the aim of ensuring that Algerian banks are constantly innovating and keeping pace with their competitors.

2- Building an information system in the Algerian banking system: In order to build an effective banking information system in the Algerian banking system, the following must be taken:

- Setting clear objectives for building an information system in the Algerian banking system in the short, medium, and long terms.

- Designing an information system for each bank consisting of subsystems represented by credit information systems, marketing information systems, and human resources management information systems, in a manner that links bank departments and enables the provision of accurate, in-depth, detailed, and comprehensive quantitative and qualitative information.

- Integrating banks' information systems and placing them within a comprehensive information system for the Algerian banking system, and unifying the operating methods of this system across various banks and across the various departments of a single bank.

- Defining the tasks and responsibilities required to operate the banking information system and distributing them among the components of the Algerian banking system.

3- Training bank employees and disseminating the culture of electronic banking among customers:

In light of the new direction of the Algerian economy and the idea of modernizing the Algerian banking system through the adoption of electronic banking, it is necessary to prepare and qualify the banking environment to keep pace with technological developments in this field.

Since technology is a new science, culture, and work tool that significantly differs from traditional administrative work tools, it is not sufficient to educate and train administrative staff on new work methods and devices. It is also necessary to educate clients or the target group to receive and interact with the service. Therefore, it is necessary to spread awareness and technical culture among these individuals to ensure that electronic management is welcomed by the target group.

4- Issuing regulatory laws and legislation: As e-banking has become an inevitability imposed by global changes and one of the determinants of success for any bank, its adoption in banking activity has become essential. However, its practice cannot be achieved without legal regulation and the establishment of a legislative framework. In order to regulate and accurately control the practice of e-banking in the Algerian banking system, the concerns of the laws and legislation related to it should focus on identity verification, electronic signatures, cash payment systems, digital or electronic money, information confidentiality, information security from the risks of high-tech procedures, customer privacy, liability for errors and electronic risks, e-banking contracts, ownership issues for bank software and information databases, and the bank's relationship with technology providers.

5- Banking Information Security: In order to ensure that electronic banking information in the Algerian banking system remains safe from access or manipulation, it is essential that banking information security be built on the following pillars:

- Confidentiality: This means ensuring that information held by the electronic bank cannot be accessed or copied by anyone unless they have an official capacity that allows them to do so. This means protecting this information from spying, whether through traditional methods or modern electronic methods.

- Integrity: This means the absence of any form of manipulation, alteration, modification, or cancellation of banking data from the moment it is sent from its source until the moment it is received.

- Authentication: This means the bank's ability to prove that electronic transactions are attributed to a specific party and to verify that this party is the party concerned, without giving them any opportunity to deny it. It is necessary to establish mechanisms and techniques for electronic commercial proof and to identify judicial bodies and litigation procedures to provide solutions to problems that may occur and undermine the objectives of electronic banking.

6- Electronic authentication: This involves designing electronically protected programs that prevent authorized persons from accessing stored information across management networks.

Conclusions.

Electronic banking in Algeria has introduced several types of electronic payment methods and systems, such as electronic money transfer, electronic clearing, the gross settlement system, automated teller machines (ATMs), and internet banking. A basic infrastructure is also required to establish and build a robust electronic banking system. Looking at Algerian banks, we see that most of them suffer from a lack of electronic banking services, with their scope of operation limited to credit cards. This is still in its infancy, despite the enormous efforts made by developing programs that have yet to see the light of day. This has also created numerous risks, problems, and obstacles that have prevented the implementation of electronic banking in Algeria. Despite this, the Algerian state is working to utilize and develop these new and modern technologies, tools, and methods to modernize its banking activity and attempt to generalize them across all banks.

We also propose the following:

- Algeria must work to develop its electronic services, keep pace with technological advancements, and adopt the latest banking technologies to be able to compete globally.

- Algeria should expand e-banking to all banks and their branches to attract the largest possible number of customers. Maintaining ATMs and utilizing the latest technology to improve banking performance is essential.

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