

Electronic Payment Methods in Algeria: Reality and Development Paths Les moyens de paiement électronique en Algérie: Réalité et perspectives de développement

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Abstract:

This article aims to analyze the current state of electronic payment methods in Algeria and identify the challenges facing this sector. It provides a comprehensive overview of the various electronic payment channels, trends, and developments, emphasizing the need for improvements to enhance the use of these methods.

The study concludes that there is a continuous evolution in the reliance on electronic payment methods in Algeria, as evidenced by the increasing popularity of circulating bank cards, which number around 23 million, of which 82% are classified as "gold cards" and 18% as "CIB." However, there are also some shortcomings that need to be addressed to strengthen this infrastructure. This can be achieved by enhancing high-speed internet coverage, especially in rural areas, developing the technical platforms of banks to ensure speed and security, facilitating the opening of bank accounts for all segments of society, and providing suitable payment solutions for smartphones and prepaid cards for the unbanked population.

Keywords: Electronic payment; Automated Teller Machine; Golden card; Financial technology.

Résumé:

Cet article vise à analyser l'état actuel des moyens de paiement électronique en Algérie et à identifier les défis auxquels ce secteur est confronté. Il présente un aperçu global des différents canaux de paiement électronique, ainsi que des tendances et des évolutions

enregistrées, tout en soulignant la nécessité d'améliorer ces moyens afin de favoriser leur utilisation.

L'étude conclut à une évolution continue du recours aux moyens de paiement électronique en Algérie, comme en témoigne la popularité croissante des cartes bancaires en circulation, dont le nombre s'élève à environ 23 millions, parmi lesquelles 82 % sont classées comme « cartes Gold » et 18 % comme « cartes CIB ». Toutefois, certaines insuffisances doivent encore être corrigées afin de renforcer cette infrastructure. Cela peut être réalisé en améliorant la couverture de l'Internet haut débit, notamment dans les zones rurales, en développant les plateformes techniques des banques afin de garantir la rapidité et la sécurité des opérations, en facilitant l'ouverture de comptes bancaires pour toutes les catégories de la société et en proposant des solutions de paiement adaptées aux smartphones ainsi que des cartes prépayées destinées à la population non bancarisée.

Mots-clés: Paiement électronique ; distributeur automatique de billets ; carte Gold ; technologie financière.

Introduction:

The rapid expansion of digital technologies has fundamentally transformed the architecture of contemporary financial systems, making electronic payment an increasingly important component of economic and financial development. Electronic payment methods have contributed to simplifying financial transactions, reducing transaction costs and processing time, improving operational efficiency, and enhancing transparency and traceability. They have also become closely associated with financial inclusion, digital banking, and the modernization of financial services. The transition from traditional cash-based transactions toward electronic payment mechanisms is therefore no longer merely a technological development, but an essential dimension of the broader digital transformation of economies. In this context, the development of secure, accessible, and efficient electronic payment infrastructures has become an important concern for financial institutions and policymakers seeking to adapt financial systems to changing consumer behavior and technological innovation.

In Algeria, the development of electronic payment methods has gained increasing importance as part of the modernization of the banking and financial system and the broader process of digital transformation. The expansion of bank cards, automated teller machines (ATMs), electronic payment terminals (EPTs), and online payment services has progressively diversified the channels through which individuals and businesses can conduct financial transactions. These developments have the potential to improve the efficiency of payment systems, facilitate access to financial services, support financial inclusion, and contribute to the modernization of economic activity. At the same time, the expansion of electronic payment faces several technological, institutional, infrastructural, and behavioral challenges, including the availability and quality of digital infrastructure, the security and reliability of electronic transactions, access to banking services, and the need to provide appropriate payment solutions for different segments of the population. Against this background, examining the current state of electronic payment methods in Algeria and identifying the factors that constrain their further

development is particularly relevant to understanding the country's ongoing financial and digital transformation.

1. Statement of the Problem

Despite the progressive expansion of electronic payment channels in Algeria, the transition toward a more digitally integrated payment environment continues to face several challenges. The development of electronic payment depends not only on the availability of payment instruments, but also on the quality of technological infrastructure, the efficiency of banking platforms, transaction security, accessibility, user confidence, and the ability of financial institutions to provide innovative services adapted to different categories of users.

Accordingly, the present study seeks to address the following main research question:

What is the current reality of electronic payment methods in Algeria, and what are the main challenges affecting their development?

2. Research Questions

To address the main research problem, the study raises the following sub-questions:

1. What are electronic payment methods, and what are their main forms and characteristics?
2. What is the current development of electronic payment methods in Algeria in terms of the available channels and related statistical indicators?
3. What are the main technological, infrastructural, institutional, and financial challenges affecting the development of electronic payment methods in Algeria?
4. What measures could contribute to strengthening the use and effectiveness of electronic payment methods in Algeria?

3. Importance of the Study

The importance of this study stems from the growing role of electronic payment in the modernization of financial systems and the digital transformation of economic activity. Examining the Algerian experience provides an opportunity to understand the evolution of electronic payment channels and the extent to which they contribute to improving the efficiency, accessibility, and modernization of financial services.

The study is also significant because identifying the main constraints affecting electronic payment can provide useful insights for financial institutions, policymakers, and other stakeholders concerned with banking modernization and digital transformation. In particular, examining infrastructure, banking technologies, accessibility, transaction security, and payment solutions may contribute to a better understanding of the conditions required for the further development of electronic payment in Algeria.

4. Objectives of the Study

The study aims to achieve the following objectives:

1. To clarify the concept of electronic payment methods and identify their principal forms.
2. To examine the current reality and development of electronic payment methods in Algeria.
3. To analyze the main electronic payment channels available in the Algerian financial system.
4. To examine relevant statistical indicators reflecting the evolution of electronic payment in Algeria.
5. To identify the principal technological, infrastructural, institutional, and financial challenges affecting the development of electronic payment.

6. To identify possible development paths that could contribute to strengthening the efficiency, accessibility, security, and wider use of electronic payment methods in Algeria.

5. Research Methodology

To achieve the objectives of the study and answer the research questions, the research adopts a descriptive-analytical approach. The descriptive approach is used to present the concept of electronic payment methods, their principal forms, and the main channels through which electronic transactions are conducted in Algeria. The analytical approach is employed to examine the available statistical indicators and assess the evolution of electronic payment methods, while identifying the principal challenges that may limit their further development.

The study also relies on documentary analysis through the examination of relevant official statistics, institutional reports, banking information, and available studies dealing with electronic payment and financial digitalization in Algeria. The combination of these approaches makes it possible to provide an integrated analysis of the current situation and the principal development requirements of electronic payment methods in Algeria.

6. Scope of the Study

The study focuses geographically on Algeria and examines the development of electronic payment methods within the Algerian financial and banking environment. The analysis covers the principal electronic payment channels, including bank cards, automated teller machines, electronic payment terminals, and online payment services. Particular attention is given to the development of these channels and to the technological, infrastructural, institutional, and accessibility-related challenges associated with their expansion.

7. Structure of the Study

To address the research problem and achieve the stated objectives, the article is organized into a number of interconnected sections. The first section examines the conceptual foundations of electronic payment methods, including their definition, characteristics, and principal forms. The second section analyzes the reality and development of electronic payment methods in Algeria through the available statistical indicators and the evolution of the principal payment channels. The third section identifies and discusses the major challenges affecting the development of electronic payment in Algeria, with particular emphasis on digital infrastructure, banking platforms, security, accessibility, and financial inclusion. The final section discusses the principal development paths that could contribute to strengthening the efficiency, accessibility, security, and wider adoption of electronic payment methods in Algeria.

Through this analytical framework, the study seeks to provide a comprehensive understanding of the current position of electronic payment in Algeria while highlighting the conditions necessary for its continued development within the country's broader digital transformation process.

First Section: The Nature of Electronic Payment Methods

The development of electronic payment methods has become an essential component of modern financial systems, particularly with the rapid expansion of digital technologies and e-commerce. Accordingly, understanding their conceptual foundations, importance, and main characteristics is essential for assessing their role in facilitating financial transactions and supporting digital transformation.

First: The Concept of Electronic Payment Methods

There are several definitions of electronic payment methods, the most important of which can be summarized as follows: (ababsa, 2016, p. 341)

- a. An electronic, secure, and rapid process for transferring funds from the buyer to the seller through financial institutions, at the lowest possible cost.
- b. An electronic instrument that stores monetary value electronically, such as a card or computer memory, and is accepted as a means of payment by merchants other than the institution that issued it. It is made available to users as an alternative to cash and paper currency, with the aim of carrying out electronic transfers for payments of a specified value.

Secondly: The Importance of Electronic Payment Methods

Information technology has played a significant role in expanding the scope of e-commerce by establishing modern payment methods that meet its requirements, and the importance of these methods is evident, Electronic payment is available at the following points: (arioua & khaoui, 2017, p. 141)

- a. Shortening geographical distances.
- b. Introducing banks and promoting their services.
- c. Providing additional high-quality banking services around the clock.
- d. Reducing the expenses that banks incurred as a result of providing the service through traditional means.
- e. Enhancing intellectual capital.
- f. Adapting information and communication technologies.
- g. Keeping up with the latest developments in global banking.
- h. Take advantage of the advantages of e-commerce.

Third: Characteristics of Electronic Payment Methods

Payment methods are characterized by the following features: (medjdi, 2025, pp. 213-214)

- a. Electronic payment is international in nature, meaning it is a method accepted by all countries. It is used to settle accounts in transactions conducted electronically between users worldwide.
- b. Payment is made using electronic money, which is essentially ordinary monetary unit, but stored and settled electronically.
- c. This method is used for settling electronic transactions remotely, where the contract is concluded between geographically separated parties and payment is made via the internet, according to electronic data that allows direct communication between the contracting parties. Electronic payment is made in one of two ways:
 - **First:** Through funds allocated in advance for this purpose, where the price is paid upfront.
 - **Second:** Through regular bank cards, where there are no funds allocated in advance for this purpose; rather, the amounts withdrawn from these cards can be withdrawn from them by other means, such as checks.
- d. This requires the availability of devices that handle these remote transactions to facilitate interaction between the parties and provide trust between them.

- e. Electronic payment can be made through various types of networks, for example, an open public network where transactions take place between many individuals, whether natural or legal persons; a closed private network where communication is limited to the contracting parties and presupposes prior commercial and financial transactions and relationships between them; or a mixed network where the owner has the freedom to close it to ensure the security of transactions or open it to allow other users to conduct their transactions

Second Section: The Reality of Electronic Payment Methods in Algeria

This section highlights the evaluation of electronic payment performance and systems in Algeria based on key indicators, presenting a detailed analysis of acceptance networks and banking instrument usage.

First: Electronic Payment Methods and Technologies

The Automated Cash Collection (or Cash-in Collection) group conducts periodic assessments of electronic payment activities, based on key performance indicators. This approach falls within an operational vision aimed at continuous improvement, correcting discrepancies, and developing electronic payment systems and means, in line with the strategic directions aimed at promoting electronic payments in Algeria;

This section compiles the main data related to banking activity by providing a comprehensive view of the various channels for using electronic payment instruments, while highlighting the trends and developments recorded in this field;

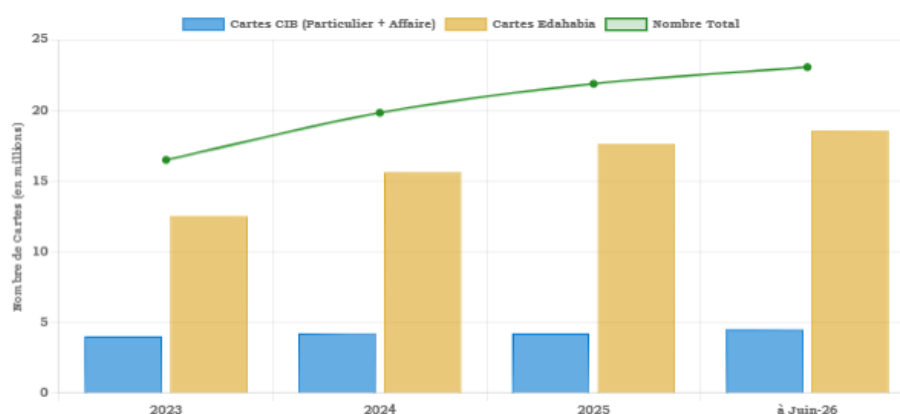
The information has been organized into six main axes, which allow for an in-depth analysis of the evolution of the acquiring (acceptance) network and usage patterns of different payment instruments. These are: electronic payment means and devices; cash withdrawal activity at the ATM; card-based payment activity at the electronic point-of-sale terminal; card payment activity on the internet; mobile payment activity both in close proximity and remotely; as well as the ratio of payment transactions to cash withdrawals;

The number of cards in circulation reached **23,082,475** cards, with **4,419** active ATMs, **119,430** operating electronic payment terminals, and **1,004** integrated e-merchants. (The Official Website of the ATM Network, 2014)

Secondly: Evolution of the number of cards in circulation

The evolution of the number of cards in circulation in Algeria can be presented and analyzed using the following figure: (The Official Website of the ATM Network, 2014)

Figure 01: Shows the evolution of the number of cards in circulation



Source: *(The Official Website of the ATM Network, 2014)*

At the end of June 2026, the total number of interbank cards in circulation reached almost 23 million, of which 82% were "Edahabia" and 18% "CIB". This represents a 5% increase compared to December 2025.

"CIB Business" cards represent only 6% of all "CIB" cards in circulation, or 1% of the total number of cards in circulation.

Furthermore, the number of cards with a Dual Interface (contact and contactless) is currently estimated at 509,986; a 12% increase compared to the end of December 2025.

A new card product has been introduced, called the "Deferred Debit Card". The total number currently stands at 33,355 cards; a 31% increase compared to the end of December 2025

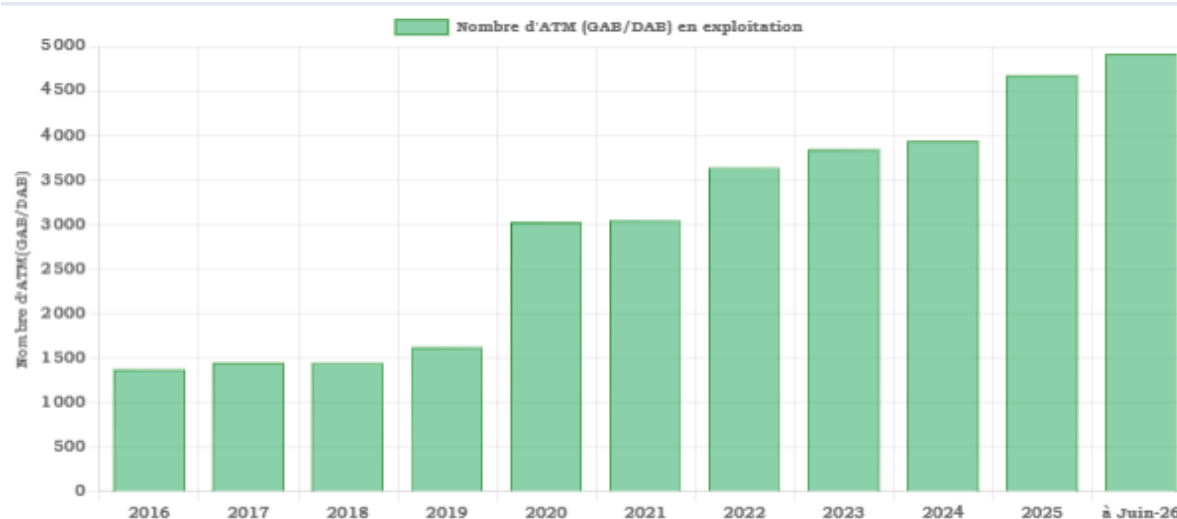
During the month of June, more than 46% of interbank cards were used at least once to make a withdrawal or payment transaction

This variety of card products reflects the commitment of the Members of the GIE Monétique to the continuous improvement of the quality of service.

Third: Automated teller machines (ATMs)

The evolution of ATMs in Algeria can be examined and analyzed as follows: (The Official Website of the ATM Network, 2014)

Figure 02: Presentation and analysis of the evolution of ATMs in Algeria.



Source: *(The Official Website of the ATM Network, 2014)*

By the end of June 2026, the total number of ATMs reached 4,919, representing a rate of 114.73 ATMs per 100,000 adults, compared to 13.84 ATMs in June 2025, marking an increase of approximately one (1) ATM per 100,000 adults.

The international average in 2023 was approximately 240.42 ATMs per 100,000 adults.

During June, the ATM network was strengthened with the addition of 70 machines, representing a 5% increase, equivalent to 240 new ATMs compared to the end of the previous year. These developments are part of ongoing efforts to improve

service quality, as well as to enhance and modernize the ATM network through the acquisition of state-of-the-art equipment with advanced functional capabilities and a high level of security

Fourth: Electronic payment devices

The evolution of the number of electronic payment terminals operating in Algeria can be presented and analyzed using the following table: (The Official Website of the ATM Network, 2014)

Figure 03: Evolution of the number of electronic payment terminals in operation in Algeria



Source: (The Official Website of the ATM Network, 2014)

By the end of June 2026, the number of electronic payment terminals had increased by 52% compared to the previous year, representing 40,656 new devices during the first half of 2026. This is the result of the ongoing efforts of the members of the Automated Clearing House Association and other stakeholders to develop the acceptance network, through the equipping of technicians from SSB, SATIM, and authorized providers across various public and private sectors.

Fifth: Integrated E-Merchants

The evolution and analysis of the number of integrated e-merchants in Algeria can be presented as follows:

Figure 04: Presentation of the evolution and analysis of the number of integrated e-merchants in Algeria



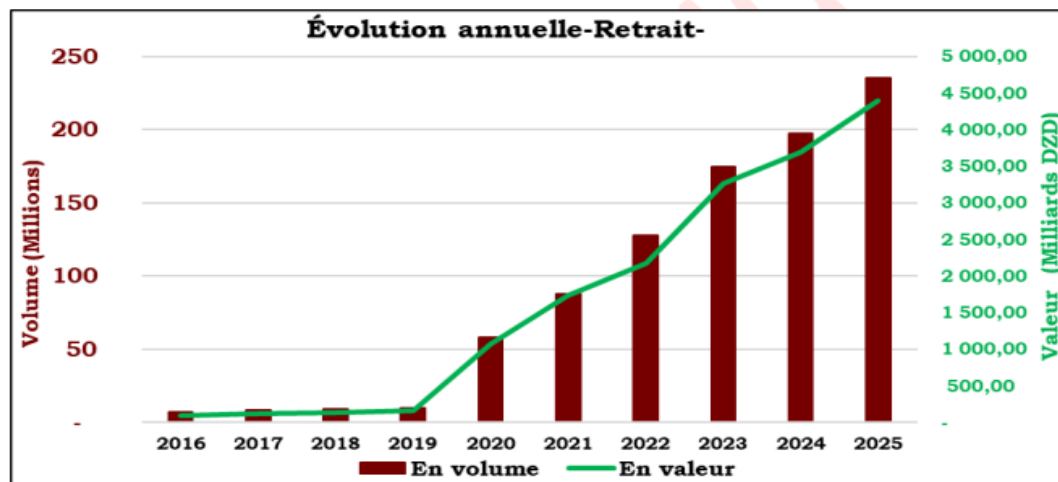
Source: (The Official Website of the ATM Network, 2014)

Initiatives undertaken to develop electronic payment methods, particularly online payments, have improved merchants' access to the dedicated platform. This has resulted in significant growth in the number of integrated online merchants, increasing from 644 at the end of December 2025 to 1,004 at the end of June 2026, representing an increase of 360 online merchants, or a 56% growth.

Sixth: ATM withdrawal activity

The development of ATM withdrawal activity can be illustrated by the following two figures: (The Official Website of the ATM Network, 2014)

Figure 01: Represents the development of ATM withdrawal activity



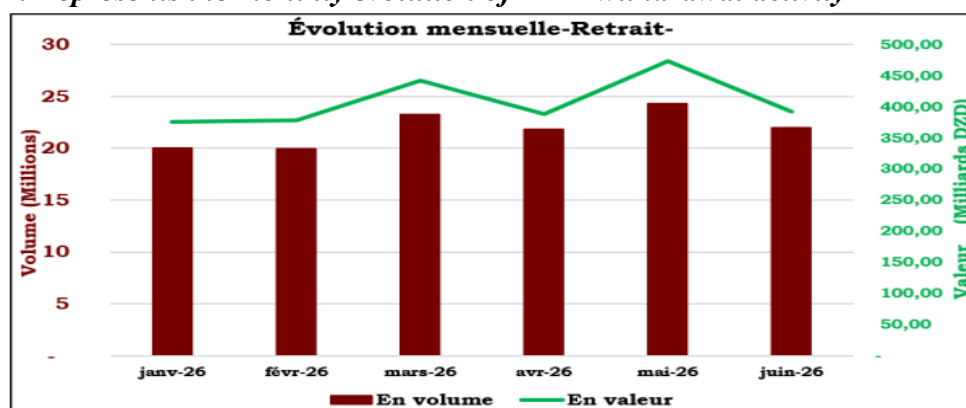
Source: (The Official Website of the ATM Network, 2014)

Withdrawal activity continues its upward trend year after year in both volume and value, driven by several factors, including:

- Growth in the national ATM network;
- Growth in the card network;
- Ease and availability of ATMs;
- Gradual shift in cardholder habits, increasingly favoring the use of interbank cards.

Since 2020, the average amount per withdrawal transaction has remained stable at around DZD 18,500.00.

Figure 02: Represents the monthly evolution of ATM withdrawal activity



Source: *(The Official Website of the ATM Network, 2014)*

Analysis of withdrawal activity reveals monthly fluctuations in both volume and value, reflecting the influence of seasonal factors and changes in cardholder behavior. Despite these variations, the average amount per withdrawal remains relatively stable, generally ranging between 18,000.00 and 19,500.00 DZD per transaction.

During the first half of 2026, activity saw particularly significant increases in March and May, driven in particular by the increased liquidity needs associated with the Eid al-Fitr and Eid al-Adha holidays. (The Official Website of the ATM Network, 2014)

Third Section: Methods for Developing Electronic Payment Methods in Algeria

Despite the efforts made by the Algerian state to develop the sector, the rate of electronic payment usage remains low compared to the available capacity. Therefore, there is a need for a set of measures to activate and expand the use of these methods at the national level. The most prominent of these measures are as follows: (chemloul, 2025, pp. 328-329)

First: Improving digital infrastructure, through:

- a. Enhancing high-speed internet coverage, especially in the interior regions
- b. Developing the technical platforms of banks and financial institutions to ensure speed and security
- c. Upgrading electronic payment devices and expanding their network nationwide.

Secondly: Incentivizing economic actors (merchants and enterprises) by:

- a. Providing tax or financial incentives to merchants who adopt electronic payment methods
- b. Gradually mandating the use of electronic payment methods in some major commercial activities
- c. Providing POS payment devices at affordable prices or through government subsidies.

Third: Raising awareness and financial literacy among citizens, which can be achieved by:

- a. Launching media and educational awareness campaigns explaining the benefits and security of electronic payment;
- b. Integrating financial literacy into educational curricula
- c. Providing free training courses through banks or associations

Fourth: Enhancing trust and cybersecurity by:

- a. Developing systems to protect customer information and financial transactions
- b. Imposing strict controls on electronic fraud and hacking
- c. Activating the role of the Electronic and Banking Payment Regulatory Authority to ensure transparency and accountability.

Fifth: Improving the legal and legislative framework by taking the following measures:

- a. Updating legislation to keep pace with the development of digital payment methods and ensure consumer protection
- b. Enacting laws that gradually require certain sectors to use electronic payments
- c. Encouraging the establishment of startups in the field of financial technology.

Sixth: Supporting and expanding financial inclusion by:

- a. Facilitating the opening of bank accounts for all segments of society, especially in rural areas

- b. Providing suitable payment solutions for smartphones and prepaid cards for the unbanked population.

Conclusion:

The study titled "Electronic Payment Methods in Algeria: Reality and Development Paths" highlights the significant transformations and advanced steps undertaken by the banking and financial system to develop electronic payment infrastructure and expand its adoption up to June 2026. This progress is clearly reflected in the noticeable increase in circulating bank cards, the expansion of automated teller machines and electronic payment terminals, and the substantial growth in online merchants, demonstrating the commitment of stakeholders to upgrading digital financial services.

Conversely, current indicators and data confirm that the complete transition toward a cashless society remains dependent on overcoming several structural and technical challenges. This necessitates coordinated efforts among all relevant actors to enhance financial inclusion, develop digital platforms, and expand technological coverage across all regions, thereby ensuring the establishment of a secure, rapid, and more comprehensive and sustainable electronic payment ecosystem.

First: Findings

1. By the end of June 2026, the total number of circulating bank cards reached 23 million, of which 82% were "gold" cards and 18% were "CIB," alongside the introduction of the "deferred debit card" product.
2. The total number of ATMs reached 4,919 by the end of June 2026, averaging 114.73 machines per 100,000 adults, supported by network enhancements and the addition of modern equipment.
3. The number of electronic payment terminals (EPTs) recorded an increase of 52% compared to the previous year, reaching 119,430 operating devices during the first half of 2026.
4. The number of integrated online merchants experienced significant growth, rising from 644 merchants at the end of December 2025 to 1,004 merchants at the end of June 2026, representing a growth rate of 56%.

Second: Recommendations

1. It is essential to enhance the coverage of high-speed internet, especially in rural areas.
2. There is a need to develop the technical platforms of banks and financial institutions to ensure speed and security.
3. Update electronic payment devices and expand their network nationwide.
4. It is necessary to facilitate the opening of bank accounts for all segments of society, particularly in rural areas, while providing suitable payment solutions for the unbanked population.

Third: Future Avenues

1. Assessing the impact of digital financial inclusion on reducing the size of the informal economy and integrating cash liquidity into official banking channels.
2. Evaluating future cyber security challenges and risks associated with digital payments and financial technology (Fintech) advancements in Algeria.

3. Measuring the level of digital financial literacy among Algerian consumers and their readiness to adopt electronic alternatives over traditional cash usage.
4. Examining the role of financial technology startups in reshaping banking services and fostering innovative payment solutions for unbanked segments.

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