Innovation in Digital Banking Services: An Analysis of Developments in Algerian Banks

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Abstract:

This research addresses the importance of innovation in digital banking services in light of the rapid advancement of Financial Technology (FinTech). The study reviews the reality of Algerian banks in adopting this innovation and the extent of their benefits from it, with a focus on analyzing the experiences of some Algerian banks and the role of local companies in contributing to the digital transformation of the banking sector. Additionally, the research evaluates the reality of banking digitization in Algeria, highlighting its various growth dimensions and its impact on the financial sector and beneficiaries. The study concludes with a set of recommendations aimed at enabling Algerian banks to maximize their benefits from financial technology in order to achieve their strategic goals and contribute to the economic development of the country.

Keywords: Digital Banking Services, Innovation, Financial Technology, Algerian Banks, Digital Transformation..

INTRODUCTION:

In recent years, innovation in digital banking services has become a vital area requiring increased attention, as this innovation accompanies the evolution of financial technology (FinTech), which reflects a radical transformation in how financial services are delivered. FinTech contributes to improving the quality of financial products and services through the use of advanced information technology (IT) applications. This sector has gained particular importance due to a range of factors, from technological advancements and institutional innovation to the need to reduce costs and enhance customer relationships.

The speed at which financial technology is being adopted presents significant challenges, given the diversity of specializations involved and the high demand for these services. Therefore, FinTech has garnered considerable attention from governments, policymakers, and regulators, as its development in the country is attributed to its positive impact on both the public and banks, helping to alleviate the burden of high-interest loans and ensuring secure financial management for individuals. However, these developments have ushered in a new era in the banking sector, characterized by challenges, opportunities, and risks.

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In this context, there is a pressing need to analyze the developments in digital banking services in Algeria, as Algerian banks are among the most sensitive in this field. Thus, we pose the following question:

What is the reality of Algerian banks regarding innovation in digital financial services, and to what extent are these banks benefiting from such innovation?

1) The concept of innovation in digital banking services and analysis of the experiences of Algerian banks:

The global banking sector is witnessing a radical transformation driven by technological innovations, necessitating banks to reconsider their business models and provide innovative digital services that meet changing customer expectations. This section aims to explore the concept of innovation in digital banking services, identify its essential elements, and analyze its impact on bank performance and financial inclusion. Additionally, this section will analyze the experiences of some leading Algerian banks in the field of digital innovation, evaluating the extent of their adoption of the latest technologies and practices in this domain, and how they contribute to the development of digital banking services in Algeria.

1-1) The concept of innovation in digital banking services:

Innovation in digital banking services is a vital element in enhancing efficiency and profitability within the banking sector. Banks that rapidly adopt digital banking technology are more efficient compared to their traditional counterparts, leading to improved profitability. This digital transformation requires banks to restructure their business operations, such as fundraising and distribution, which contributes to reducing reliance on traditional processes and enhances operational efficiency. Furthermore, risk management, particularly liquidity risk, plays a crucial role in determining a bank's profitability, as it can negatively impact financial performance (السراي، 2023، صفحة 128).

Financial technology is defined as the integration of software, algorithms, and applications into computing tools and mobile phones to improve or digitize traditional financial services (Benamar, Mokhtari, & Chine, 2025, p. 63). Financial technology tools encompass a variety of modern technologies that enhance banking services. Among these tools is artificial intelligence, which facilitates service delivery to customers, such as obtaining loans more quickly. Additionally, smart contracts and Blockchain play a pivotal role in improving security and transparency in financial transactions. For instance, Blockchain allows for secure data storage and exchange without the possibility of manipulation, thereby creating greater trust among the involved parties. Cloud computing is also an important tool, as it helps reduce costs and improve the services offered to customers.

Financial technology is an effective means of achieving financial inclusion, as it provides affordable financial services to broad segments of society, innovation in financial services, such as mobile banking, can enhance access to financial services, especially in developing countries like Algeria. The "E-rselli" program serves as a local example of how digital technology can facilitate payments and improve user experience. Moreover, the digital transformation in the banking sector enhances banks' ability to meet customer needs more effectively, contributing to the achievement of financial inclusion goals (Benamar, Mokhtari, & Chine, 2025, p. 64).

Big data is a fundamental element in innovation in digital banking services, as it allows banks to better understand customer habits and spending. This information can be used to improve marketing strategies and provide personalized services that meet diverse customer needs. Additionally, the use of big data can enhance the efficiency of banking operations and contribute to more accurate financial decision-making.

Despite the numerous benefits of financial technology, there are challenges that must be addressed, such as cybersecurity risks, the need for developing digital infrastructure, and establishing appropriate regulatory frameworks (طلحي و زوادي، 2023، صفحة 3). However, the opportunities provided by financial technology outweigh these challenges, as it can contribute to transforming the banking sector into a more efficient and inclusive domain.

1-2) analysis of the experiences of Algerian banks:

Innovation in digital banking services represents a radical shift in how banks operate, helping them improve efficiency, reduce costs, and increase profitability. By leveraging financial technology tools and enhancing financial inclusion, Algerian banks can progress toward achieving a future vision that aligns with global developments.

- **Analysis of the Experience of the External Bank of Algeria (BEA)**

The experience of the External Bank of Algeria (BEA) in the field of innovation in digital banking services is considered a model to be emulated in the local banking sector. The External Bank of Algeria (BEA) is one of the leading banks in Algeria that has adopted innovation in the field of digital banking services, reflecting its commitment to providing advanced financial solutions that meet customer needs (مرزوق و عطالله، 2025، صفحة 64).

BEA offers a variety of digital services that facilitate financial transactions for individuals and businesses. This is exemplified by its provision of international money transfer services using the SWIFT system, which enables customers to send and receive money across borders quickly and securely, enhancing the efficiency of businesses and boosting their competitiveness in global markets.

Moreover, the External Bank of Algeria provides electronic payment services, allowing customers to make online payments easily and securely, whether the transactions involve purchasing products or settling bills. This contributes to enhancing the e-shopping experience. Based on the information provided on the official website of the External Bank of Algeria (https://www.bea.dz/mobile), it can be said that the BEA MOBILE application offers an improved customer experience, facilitating users in managing all their banking transactions from their smartphones.

The ability to manage accounts online is one of the most prominent innovations offered by BEA, enabling customers to access their bank accounts and conduct financial transactions from anywhere at any time. This makes it easier for them to manage their financial affairs more effectively and helps them monitor their balances and account statements.

The External Bank of Algeria highlights how digital banking services can enhance the efficiency of the banking system and offers electronic financing services that allow customers to obtain financing easily and quickly. These innovations significantly contribute to achieving sustainable economic development and promoting e-commerce in Algeria, demonstrating the bank's commitment to meeting its customers' needs in an innovative and secure manner.

- **Analysis of the Experience of the National Bank of Algeria (BNA)**

Digital banking services are one of the key areas that contribute to enhancing efficiency and convenience in financial transactions. The National Bank of Algeria (BNA) has witnessed a series of notable developments in this field since 2017. The National Bank of Algeria offers a variety of digital banking services, the bank launched a mobile banking service, allowing customers to check their account balances and transfer money between branches easily (بن عبد الله، 2024، صفحة 97).

In 2018, the first digital agency of the bank was inaugurated, equipped with automatic counters, which contributed to improving the customer experience and increasing access to banking services. In the following years, the bank launched the BN@TIC application, enabling customers to manage their bank accounts via smartphones, in addition to text message services that inform customers of any activity on their accounts.

With the increasing reliance on technology, the bank launched modern services in 2020, such as SMS-OTP for banking transactions, reflecting its commitment to enhancing the security of the services provided. The year 2021 saw the signing of strategic partnerships to develop electronic payment, which contributed to expanding the range of services and increasing the number of digital spaces to 19.

The digital services provided by the National Bank of Algeria also include options such as contactless payment through the WIMPAY-BNA service, electronic payment services, as well as a variety of banking cards that meet the needs of different customer segments. Additionally, a remote financing request service was introduced, facilitating customers in obtaining the required funding without the need to visit branches.

Through these innovations, the National Bank of Algeria aims to improve the quality of banking services and increase financial inclusion, reflecting the shift towards the digital era in the Algerian banking sector. These developments represent significant steps towards achieving a more accessible and efficient banking experience for customers, enhancing the bank's competitiveness in the national banking market.

In addition to the aforementioned developments, the National Bank of Algeria adopts a comprehensive strategy for digital transformation that goes beyond merely providing digital services. The bank seeks to re-engineer its internal processes and update its technological infrastructure to meet the demands of the digital economy. This is manifested in the allocation of specific budgets for digitization projects and the formation of specialized task forces led by senior management, focusing on areas such as artificial intelligence and big data. Despite notable progress, the bank still faces challenges in developing some advanced technologies, necessitating intensified efforts in research and development and establishing strategic partnerships with specialized technology companies. The ultimate goal remains to enhance customer experience, promote financial inclusion, and contribute to building a strong digital economy in Algeria**.** (MESLEM, 2023, p. 501)

- **Analysis of Al Salam Bank Experience**

Digital banking services in Algeria have witnessed significant development in recent years, becoming an integral part of banks' strategies to enhance customer experience and increase operational efficiency. Al Salam Bank stands out as a prominent example in this context, having introduced a range of digital services that cater to the needs of both individuals and businesses.

Data indicates that the number of "moubachir alsalam" accounts reached 6,297 in 2020, representing a 55% increase compared to 4,062 accounts in 2019. The number of local and international cards also rose significantly, reflecting the bank's success in attracting customers to its digital services. The number of local cards increased by 42% to reach 14,730 cards, while international cards rose by 45% to reach 1,677 cards.

Al Salam Bank offers a variety of digital services for individuals, the most notable of which is the "moubachir alsalam" service, allowing customers to manage their banking operations easily and securely. This service includes the ability to make cash deposits and checks, obtain account statements, and pay bills and online purchases through the "E-AMINA" service. Additionally, the "Al Salam Smart Banking" application enables customers to check their balances and recent transactions, thereby enhancing the user experience and facilitating money management (Al Salam Bank, 2025).

In addition to services for individuals, Al Salam Bank has launched innovative services targeting companies, such as "E-PREDOM" and "E-CREDOC," which provide secure documentary payment methods compliant with international standards. These services allow for the processing of import requests and documentary credits around the clock, making it easier for companies to conduct their transactions smoothly and securely.

Traditional banks in Algeria recognize the importance of financial technology (Fintech) in improving their services and meeting the changing needs of customers. This is evident through their partnerships with fintech companies, such as Al Salam Bank Algeria's partnership with "EKICLICK." This partnership aims to contribute to the digital transformation policy of the banking system by leveraging EKICLICK's expertise in digital transformation and e-commerce. These partnerships, as highlighted by (Mechroum & Benzaraa, The reality of algerian traditional banks in light of the acceleration of financial technology, 2024, p. 15), represent an important step towards adopting Fintech solutions in the Algerian banking sector.

It can be said that innovation in digital banking services has significantly contributed to enhancing the efficiency of banking services in Algeria. By providing flexible and rapid solutions, banks have been able to better meet their customers' needs, increasing their satisfaction and trust in the banking system. Furthermore, these developments contribute to enhancing financial inclusion, as they allow individuals and companies to access banking services easily, even in remote areas.

Innovation in digital banking services represents a vital step towards improving the banking experience in Algeria. Continuous investments in technology and the development of digital services are essential to keep pace with the rapid changes in customer needs. As Algerian banks continue to enhance their digital services, they contribute to building a more efficient and inclusive banking system, which in turn supports the country's economic development.

2) The role of Algerian companies in the digital transformation of banking services and an analysis of the state of digitization:

Digital transformation in the banking sector is not limited to banks alone; it also includes a pivotal role for companies specializing in providing technological solutions and supporting services. This section aims to highlight the role of Algerian companies contributing to the digital transformation of banking services, analyzing their contribution to the development of digital infrastructure, and providing innovative solutions for banks and customers. Additionally, this section will analyze the state of banking digitization in Algeria, identify the challenges it faces, and evaluate the impact of digital services such as Switch Mobile on accelerating the pace of digital transformation.

2-1) Analysis of the Role of Algerian Companies Contributing to the Digital Transformation of Banking Services:

In Algeria, digital transformation is one of the main axes that the government and the banking sector seek to achieve to enhance the efficiency of banking services and improve customer experience. This sector is witnessing a radical transformation thanks to initiatives launched by Algerian companies specialized in technological solutions, which play a central role in this transformation. This presentation aims to analyze the role of these companies in supporting the digital transformation of banking services in Algeria. We will review the contributions of these companies to the development of digital infrastructure, the provision of electronic payment solutions, and the enhancement of the security of digital transactions, which contributes to building an advanced digital banking system in Algeria.

- **Analysis of the Role of SATIM and the Automatic Relationships Between Banks**

In recent years, the banking sector in Algeria has witnessed radical transformations towards digital innovation, leading to improved customer experiences and enhanced efficiency in banking operations. Among the entities that have significantly contributed to these transformations, SATIM stands out as a pivotal element in expanding the scope of digital banking services and promoting the use of electronic payment methods.

Founded in 1995 as the first interbank monetary operator in Algeria, SATIM is affiliated with seven Algerian banks, reflecting the close cooperation among financial institutions in the country. Through its network of 19 members, which includes 18 banks (7 public banks and 11 private banks) in addition to Algeria Post, SATIM has achieved significant leaps in the field of digital banking (SATIM _. , Qui sommes nous, 2025).

SATIM has experienced remarkable growth in recent years, connecting over 1,350 ATMs and 51,000 electronic payment devices to its servers. Additionally, 500 commercial sites have been launched on its platform, enabling users to conduct electronic transactions easily and securely. This growth is a direct result of the impact of the CIB payment card on the purchasing behaviors of Algerian citizens, reflecting positive changes in the culture of digital payments.

Thanks to the innovations introduced by SATIM, the use of electronic payment cards has become more common among citizens, leading to a radical change in purchasing habits. These developments have contributed to enhancing customer trust in the banking system, increasing the adoption of digital services, and consequently improving the level of services provided.

With SATIM's ongoing efforts to develop a robust and flexible infrastructure and enhance electronic payment methods, Algeria is on the path to achieving comprehensive digital

transformation in the banking sector. These innovations not only enhance the efficiency of banks but also improve customer experience and promote financial inclusion in the country.

SATIM is a leader in providing modern technological solutions in Algeria, offering a range of national and international services that support digital transformation in the banking sector. Since its establishment in 1995, SATIM has specialized in checks and provided standardized and secure checkbooks for banking institutions, reflecting its commitment to providing secure and reliable tools for financial transactions.

SATIM significantly contributes to facilitating financial transactions by hosting electronic payment services, making it easier for individuals and businesses to conduct online transactions. Through its payment services at electronic payment stations and online payment solutions, SATIM provides a secure and efficient environment for e-commerce, thereby enhancing the culture of digital payments in Algeria and encouraging innovation in this field.

Fraud management and data protection are priorities for SATIM, which provides a tri-dimensional protection system, Secure3D, aimed at ensuring the security of electronic transactions. By integrating technologies such as CVC control and address verification, SATIM helps build trust between consumers and merchants, further promoting their reliance on digital banking services. (SATIM _. , Qui sommes nous, 2025)

SATIM collaborates with international networks by issuing and personalizing Mastercard, enabling customers to benefit from advanced banking services that align with global standards. This collaboration contributes to enhancing the position of Algerian banks in the global market and supports the digital transformation in the banking sector.

Despite the progress SATIM is making in the field of digital banking services, challenges remain in the Algerian market. Digital transformation requires ongoing investments in infrastructure and technology, as well as the need to enhance awareness and trust among users. Nevertheless, the innovation in services provided by SATIM represents a significant opportunity for Algerian banks to achieve sustainable growth in the digital age.

- **Analysis of the Role of Algeria Electronic Banking Services (AEBS)**

Algeria Electronic Banking Services (AEBS) is a pioneer in the field of digital transformation of banking services in Algeria. The company was established as a result of a strategic partnership between the French group DIAGRAM-EDI, which specializes in electronic banking software and financial data exchange security, and three Algerian institutions: MULTIMEDIA MAGACT, SOFT ENGINEERING, and the Center for Scientific and Technical Information Research (CERIST). Despite the variation in information regarding the establishment date—some sources indicate 2004 while others suggest 2016—the company's role remains central to the development and modernization of the country's banking infrastructure.(حركات و بن غيدة، 2020، صفحة 74)

AEBS offers a diverse range of innovative solutions that facilitate electronic transactions and enhance remote banking services. The company focuses on providing simple and user-friendly solutions for banks, making banking services accessible to a larger number of customers across various devices (بايو و بوكبوس، 2021، صفحة 200). Additionally, AEBS aims to reduce reliance on human and financial resources, contributing to the acceleration of banking service delivery.

In light of technological advancements, AEBS adopts the latest technologies to manage its projects. The company has chosen to use JIRA and Confluence tools from ATLASSIAN to manage its new project in the field of digital banking. This project, Based on the information provided on the official website of (https://kepler-technologies.com), aims to develop a 100% Algerian electronic banking platform, reflecting a trend towards enhancing local capabilities in this area (Kepler Technologies, 2015).

AEBS plays a pivotal role in the digital transformation of banking services in Algeria by providing innovative and secure solutions. The company has collaborated with the Center for Scientific and Technical Information Research (CERIST) to develop home banking and provide internet banking and SMS services (بايو و بوكبوس، 2021). Through these efforts, AEBS contributes to improving customer experience and developing the banking sector in Algeria.

- **Analysis of the Role of the GIE MONÉTIQUE**

The GIE MONÉTIQUE plays a pivotal role in supporting digital transformation efforts in the Algerian banking sector. Through its responsibilities in managing and standardizing electronic payment methods, the gathering contributes to creating a conducive environment for the development of innovative and secure digital banking services. The establishment of the gathering in 2014 was a strategic move by the Algerian public authorities to enhance the electronic payment system, which is considered one of the essential pillars for modernizing the banking system (GIE MONÉTIQUE, 2025).

By ensuring interoperability between banks and local and international payment systems, GIE MONÉTIQUE facilitates and expands electronic payment operations. The gathering places utmost importance on the security of digital transactions, overseeing the management of security and authentication standards to ensure the protection of customer data and reduce risks associated with electronic payments.

GIE MONÉTIQUE aims to enhance transparency in setting standards and rules for monetary activity, thereby encouraging investment in the electronic payment industry. By defining banking monetary products and the rules for their application, the gathering contributes to standardizing operations and facilitating the development of innovative digital banking services that meet customer needs.

The strategic goal of GIE MONÉTIQUE is to promote automated cash management and generalize the use of electronic payment methods in Algeria. This aligns with the state's efforts to enhance financial inclusion and facilitate access to financial services for all segments of society.

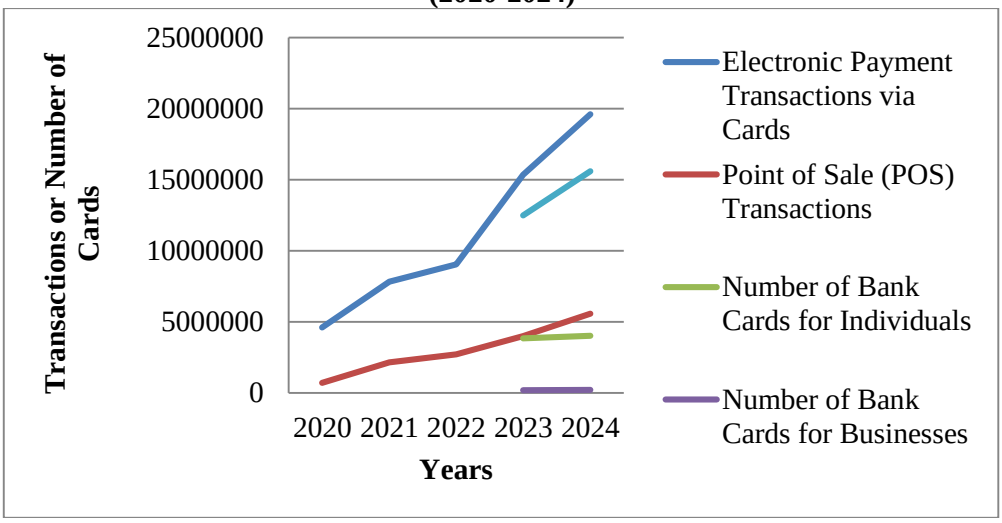
2-2) Analysis of the Reality of Banking Digitization in Algeria and Dimensions of Growth

The Algerian banking sector is witnessing a rapid digital transformation, driven by an ambitious strategic vision aimed at enhancing financial inclusion and improving customer experience. This transformation not only reflects Algeria's commitment to keeping pace with the accelerating global developments in financial technology but also demonstrates the country's desire to modernize its banking infrastructure and offer innovative services that meet the needs of individuals and businesses.

Data released by the Automated Cash Group (GIE MONÉTIQUE) and the annual report of the Bank of Algeria show a significant increase in the use of digital banking services, particularly in the field of electronic payments. This growth reflects the increasing reliance of Algerians on digital transactions, which can be linked to the rising innovations in the field of digital banking services.

In recent years, Algeria has experienced notable shifts in digital banking services, with Algerians becoming more open to using digital payment solutions. This reflects behavioral changes in spending habits. Furthermore, improvements in infrastructure and the development of banking applications have significantly contributed to accelerating this trend. To illustrate these dynamics, we will present the graph below, which reflects the rapid growth in the use of electronic payments and banking cards in Algeria.

Figure 1: Development of Electronic Payment Transactions and Banking Cards in Algeria (2020-2024)



Source: Prepared by the researcher based on data from the Automated Payment System, GIE Monétique, _. (2025). *GIE Monétique:chiffres*. Retrieved 04 02, 2025, from https://giemonetique.dz/qui-sommes-nous/activite-paiement-sur-internet

It is evident from the data of the Automated Payment System that electronic payment, whether through bank cards or point-of-sale systems, has experienced significant growth, especially after 2022. This trend reflects the increasing reliance of Algerians on digital transactions, which can be linked to the growing innovations in the field of digital banking services, such as mobile payment applications and the development of point-of-sale infrastructure.

Furthermore, the data also highlights the continuous increase in the number of circulating bank cards, particularly Golden cards and personal cards. This increase indicates a rising use of cards as a payment method, further enhancing the growth of electronic payment in the Algerian market.

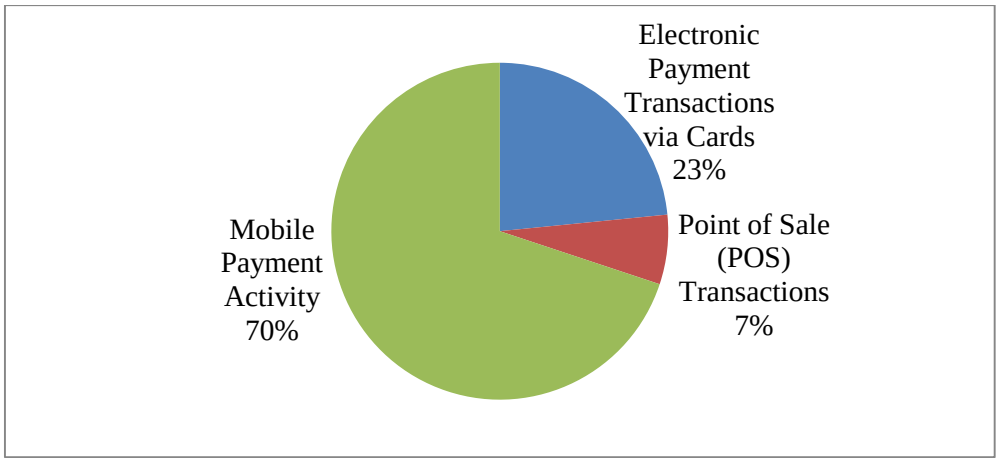
According to the annual report of the Bank of Algeria (بنك الجزائر، 2024، صفحة 77), the total number of electronic payment cards issued for circulation reached 16,509,507 cards, representing a 21.1% increase compared to the previous year. This strong growth demonstrates the role of Algerian banks in promoting innovation, as they issued 4,022,403 cards, accounting

for approximately 24.4% of the total. Meanwhile, the contribution of Algeria Post was significantly larger, issuing 12,487,304 cards (75.6%), reflecting the importance of this institution in expanding the user base. Additionally, electronic payment transactions through electronic payment terminals have witnessed a significant increase, recording 4 million transactions valued at 31 billion dinars, with an impressive growth of 47.3% in volume and 63.8% in value. This indicates a growing reliance on and acceptance of digital payment solutions by consumers, reflecting the success of innovations in designing and developing banking services that meet customer needs.

The network of ATMs and electronic payment terminals is a crucial element in this transformation, with 3,847 ATMs and 53,191 electronic payment terminals provided, facilitating access to financial services and enhancing the customer experience. This expansion reflects the increasing needs of the market and contributes to achieving financial inclusion. Conversely, there are still challenges that require attention, such as the need to improve digital infrastructure in rural areas and ensure that banking innovations reach all segments of society. Therefore, Algerian authorities and banks must continue working on developing innovative and user-friendly banking services to ensure the enhancement of trust in the financial system and to achieve the expected economic benefits from this digital transformation.

The digital banking sector in Algeria is witnessing a notable transformation in payment patterns, with a variety of means being utilized to meet the increasing needs of consumers. To better understand this dynamic, the following graph provides a comparative analysis of the most common electronic payment methods in Algeria, based on recent data from the Automated Payment System (GIE MONÉTIQUE). This analysis aims to highlight market trends and consumer preferences, providing valuable insights into the future of digital transactions in the country.

Figure 2: Comparative Analysis of Electronic Payment Methods in Algeria



Source: Prepared by the researcher based on data from the Automated Cash Gathering, GIE Monétique, _. (2025). *GIE Monétique:chiffres*. Retrieved 04 02, 2025, from https://giemonetique.dz/qui-sommes-nous/activite-paiement-sur-internet

Mobile payment is considered the most common method, accounting for 70% of electronic transactions. This high percentage reflects the increasing reliance of Algerians on digital banking applications, indicating ongoing innovations in this field.

Electronic payment via cards comes in second place, representing 23% of transactions, which highlights the importance of bank cards as a reliable means of electronic payment, pointing to the continuous need for the development of these services.

In contrast, payment through point of sale terminals constitutes only 7% of total transactions, indicating that the use of these terminals is still limited. This percentage may reflect the challenges facing the development of the necessary infrastructure for electronic point of sale systems in Algeria, calling for further investment and development in this sector.

Despite positive indicators, there are still challenges that require attention, such as the need to improve digital infrastructure in rural areas and ensuring that banking innovations reach all segments of society.

❖ Evaluating the Impact of the Switch Mobile Service on Digital Transformation

In a pivotal move to enhance digital transformation in the banking sector, the Algerian Ministry of Finance recently launched the Switch Mobile instant payment service via smartphones. This initiative reflects the government's serious commitment to fostering innovation and facilitating access to financial services, contributing to financial inclusion and the growth of the digital economy. This launch is part of a comprehensive vision to advance the banking sector.

The introduction of the Switch Mobile service comes amid a radical transformation in the digital banking services sector in Algeria, supported by rapid technological advancements and government efforts to promote innovation. As highlighted in the 2023 annual report of the Bank of Algeria (بنك الجزائر، 2024، صفحة 78), there has been notable progress in electronic payment operations. The launch of this service marks the beginning of a new phase in customer experience and enhances the effectiveness of financial transactions, bolstering Algeria's position in the global digital economy.

The impact of this digital transformation is evident in the significant growth observed in mobile payment operations in Algeria, which recorded 39 million transactions valued at approximately 28 billion dinars. This remarkable growth reflects an increase in the acceptance and adoption of electronic payments by citizens and businesses, as these payments have become a necessity in a world moving towards digitization, transcending the notion of mere convenience. This trend demonstrates users' confidence in digital systems and enhances financial transparency, contributing to the acceleration of the national economy.

The projects launched by the Bank of Algeria are part of a broader strategy to modernize the financial system. For example, the Mobile Switch project aims to improve the mobile payment experience by providing a platform that connects all banking payment solutions. This step enhances integration among various banks, facilitating transactions and increasing the efficiency of the financial system.

The ongoing development of the instant payment system represents a significant advancement in expediting financial transactions, with the ability to settle transactions in approximately ten seconds enhancing the acceptance and usage of electronic payments. This system is expected to lead to a substantial increase in transaction volumes, particularly at electronic payment terminals, thus facilitating daily business operations.

In June 2024, the Switch Mobile service was launched, enabling payments using a QR Code via smartphones. According to (SATIM, 2024), this service represents an advanced step towards enhancing security and reliability in financial transactions. It also reflects the Algerian

government's commitment to developing digital infrastructure and promoting innovation in the banking sector (SATIM _. , 2024).

Despite the progress made, Algerian banks face challenges related to digital transformation, such as the need to improve public awareness of digital services and ensure cybersecurity. However, the opportunities available through innovation in electronic payments could enhance economic growth and open new horizons for startups.

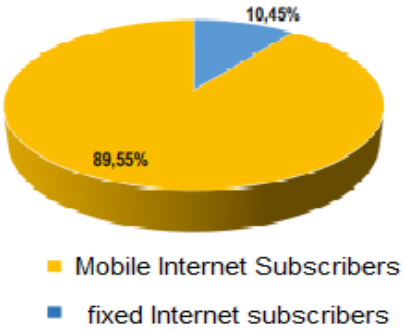
Recent developments in digital banking services in Algeria indicate a significant transformation in how financial transactions are conducted. As the government and banks continue to invest in innovation and payment technology, the financial market is likely to witness increased efficiency and transparency, contributing to the overall enhancement of the economy. Focusing on innovation in digital banking services represents a step towards achieving a prosperous and sustainable digital economy in Algeria.

3) Anticipating future prospects for digital banking services in Algeria

Algeria is experiencing a time of rapid digital transformations, which positively impacts various sectors, including the banking sector. The increasing use of smartphones and the expansion of the internet have created unprecedented opportunities for the development of banking services, reflecting a radical change in the way individuals interact with banks.

Official statistics show a significant growth in the number of internet subscribers in Algeria, especially in the mobile phone sector. During the first quarter of 2024, the number of mobile internet subscribers reached 89.56% of the total internet subscribers in Algeria, compared to 10.44% for fixed-line internet subscribers. This steady growth indicates a wide-ranging digital transformation within Algerian society, providing a fertile environment for adopting digital banking services.

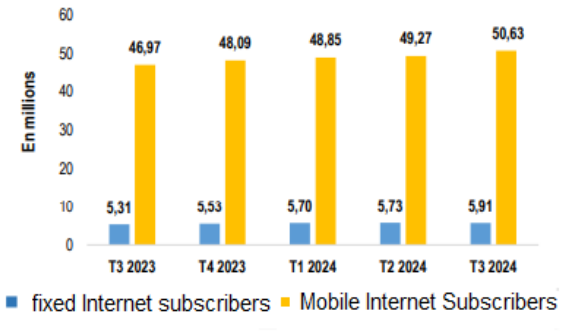
Figure 3: Distribution of Total Internet Subscribers by Access Type in Q3 2024



Source: The National Agency for Postal and Electronic Communications (ARPCE) . (2024). *Market Indicators*. Retrieved 03 07, 2025, from https://www.arpce.dz/ar/indic/internet

When comparing the growth rates between the two types of connectivity, the growth rate of mobile internet was significantly higher than that of fixed internet, indicating a major shift towards the use of smartphones and tablets to access the internet.

Figure 4: Development of Internet Subscriber Base by Access Type T3 2023 –T3 2024



Source: The National Agency for Postal and Electronic Communications (ARPCE) . (2024). *Market Indicators*. Retrieved 03 07, 2025, from https://www.arpce.dz/ar/indic/internet

This digital transformation means that mobile applications have become the primary interface for interaction between customers and banks, serving as an ideal environment for implementing artificial intelligence technologies. Banks can utilize artificial intelligence to enhance their applications, meet the growing needs of customers, and provide a personalized and seamless banking experience.

The rising growth rate of mobile internet represents a golden opportunity for Algerian banks to invest in digital technology and artificial intelligence, improve their customer experience, and strengthen their market position. This growth indicates a promising future for digital banking services in Algeria, where banks can leverage technological advancements to expand their customer base and enhance the quality of their services. Digital transformation in the Algerian banking sector is not just a temporary trend; it is a strategic necessity that ensures sustainable growth and competitiveness in a rapidly evolving world.

The Fintech sector in Algeria is witnessing notable growth, driven by the emergence of 31 startups offering innovative solutions. Among these companies, digital banks such as "Banxy" and "Zero Cach" stand out, providing direct banking services via smartphones and integrated electronic payment solutions for startups and e-commerce. Additionally, companies like "Monadim" and "Crypto Recharge" are automating payroll management and offering payment solutions using digital currencies. “These companies play a vital role in leading the fintech revolution in Algeria by providing innovative solutions that contribute to improving financial inclusion and facilitating access to digital financial services for citizens” (Mechroum & Benzaraa, The reality of algerian traditional banks in light of the acceleration of financial technology, 2024, p. 16).

Despite the promising growth of Fintech companies in Algeria, they face significant challenges that hinder their development. “The weak or absent legislative framework is one of the most prominent challenges, as legal texts do not cover all new developments in electronic transactions. Furthermore, the sector suffers from a lack of electronic infrastructure, a shortage of necessary skills, and funding constraints. These limitations restrict the ability of Fintech companies to operate in the electronic payment field, hindering the development of this vital sector” (Mechroum & Benzaraa, The reality of algerian traditional banks in light of the acceleration of financial technology, 2024, p. 17).

Conclusion:

It is clear that financial technology is no longer just an option, but has become an imperative necessity for the global banking sector, including Algerian banks. The rapid pace of technological advancements and the changing behaviors of customers towards digitization compel Algerian banks to expedite the adoption of this technology and integrate it into all aspects of their operations.

The results of this research have demonstrated the importance of innovation in digital banking services in enhancing customer experience, increasing operational efficiency, and achieving sustainable growth. It has also revealed significant opportunities for Algerian banks to leverage financial technology; however, this requires adopting innovative strategies and overcoming existing challenges, such as developing technological infrastructure and updating regulatory and legal frameworks.

Financial technology represents a crucial step towards developing the financial sector in Algeria, achieving financial inclusion, and promoting economic growth. We can expect to witness further innovations and improvements in the delivery of financial services in the near future, necessitating that Algerian banks prepare to keep pace with these developments and strike a balance between innovation and sustainable growth.

Therefore, adopting the following recommendations is essential for enabling Algerian banks to maximize the benefits of financial technology, achieve their strategic objectives, and contribute to the economic development of the country.

Study Recommendations:

- Algerian banks must adopt comprehensive strategies to integrate financial technology into all aspects of banking operations by developing mobile applications, digital platforms, utilizing artificial intelligence, and other modern technologies.
- Algerian banks should invest in developing the necessary technological infrastructure to support the adoption of financial technology, such as high-speed internet networks and secure electronic payment systems.
- Regulatory authorities in Algeria need to develop flexible and appropriate regulatory and legal frameworks to encourage innovation in the field of financial technology while ensuring consumer protection and maintaining the stability of the financial system.
- Algerian banks should focus on developing user-friendly digital banking services that are accessible anytime and anywhere to meet the changing needs of customers.
- Algerian banks must use financial technology to enhance transparency and credibility in financial transactions, thereby increasing customer trust.
- Algerian banks should keep pace with the needs of the new generation of customers who seek modern and advanced digital banking services.

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