

Digital Financial Services as a Mechanism to Enhance Digital Transformation and Inclusion in Algeria

"The Case of Mobile Payment Services"

Kaddour Fatima zohra*

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Abstract: This study examines the role of digital financial services in general, and mobile payment services in particular, in enhancing digital financial inclusion in Algeria. It presents the theoretical framework of digital transformation and digital financial inclusion, identifying the components and requirements of these services.

The study also tracks the development of mobile payment and peer-to-peer (P2P) transfer transactions from 2022- 2025, based on official data. The results reveal a significant growth in the number and value of electronic transactions, reflecting increased adoption of digital financial services and improvements in technical infrastructure. The study highlights that the success of digital financial inclusion depends on strengthening infrastructure, enhancing users' digital capabilities, and establishing clear regulatory frameworks to protect beneficiaries. The findings suggest that continuous investment in developing and expanding digital payment services is a strategic step to support financial inclusion, facilitate access to financial services, and promote sustainable economic development in Algeria.

Keywords: Digital financial inclusion, digital financial services, peer-to-peer (P2P) transfers, digital transformation.

JEL Classification Codes: G20, O10, O30.

ملخص: تتناول هذه الدراسة دور الخدمات المالية الرقمية عامة والدفع عبر الهاتف المحمول خاصة في تعزيز الشمول المالي الرقمي في الجزائر، حيث استعرضنا من خلالها الإطار النظري للتحويل الرقمي والشمول المالي الرقمي، محددين مكونات هذه الخدمات ومتطلباتها، ثم رصدنا تطور معاملات الدفع والتحويلات الرقمية «P2P» خلال الفترة 2022-2025 بالاعتماد على البيانات الرسمية. وقد أظهرت النتائج نموا ملحوظا في عدد وقيمة المعاملات الإلكترونية، مما يعكس توسع اعتماد الأفراد على الخدمات المالية الرقمية وتحسن البنية التحتية التقنية، كما أبرزت الدراسة أن نجاح الشمول المالي الرقمي يرتبط بتعزيز البنية التحتية، وتطوير القدرات الرقمية للمستخدمين، ووضع أطر تنظيمية واضحة لحماية المستفيدين. وتشير النتائج إلى أن الاستثمار المستمر في تطوير خدمات الدفع الرقمي وتوسيع نطاقها يعد خطوة إستراتيجية لدعم الإدماج المالي، وتسهيل الوصول للخدمات المالية، وتعزيز التنمية الاقتصادية المستدامة في الجزائر.

الكلمات المفتاحية: الشمول المالي الرقمي؛ الخدمات المالية الرقمية؛ التحويلات المالية «P2P»؛ التحويل الرقمي.

تصنيفات JEL: G20، O10، O30.

*university of abdelhamid ibn badis mostaganem, Algeria , fatimazohra.kaddour@univ-mosta.dz

01- Introduction

The financial sector in Algeria is undergoing rapid transformations driven by the digital revolution, as digital transformation and digital financial services have become strategic instruments for enhancing digital financial inclusion and facilitating individuals' access to formal financial services. Mobile payment services constitute one of the fundamental pillars of these transformations, as they provide a secure and efficient means of conducting financial transactions and enable access to financial services for populations that have traditionally been underserved. This, in turn, contributes to strengthening financial inclusion and supporting the national digital economy.

Despite the expansion in the scope of digital financial services, numerous questions remain regarding the effectiveness of these services in promoting digital financial inclusion, particularly with respect to the role of mobile payment services as a primary mechanism for facilitating financial transactions and the factors influencing the adoption of digital financial services. From this perspective emerges the research problem of the present study, which can be formulated as follows:

How do mobile payment services and digital financial services contribute to enhancing digital financial inclusion in Algeria, and what factors influence the achievement of this digital transformation?

To address this issue, the study seeks to answer the following subsidiary questions:

- What is the concept of digital transformation and digital financial services, and what are their principles and mechanisms of implementation?
- What are the core components and requirements of digital financial inclusion?
- How have mobile payment services and peer-to-peer (P2P) financial transfers evolved in Algeria in recent years?
- What is the role of digital payment services in improving access to financial services and expanding digital financial inclusion?

Research Hypotheses

In order to address the research problem, the study proposes the following hypotheses:

- First hypothesis: Mobile payment services represent an effective mechanism for promoting digital transformation in the Algerian financial sector.
- Second hypothesis: The development of digital infrastructure enhances the capacity of institutions and individuals to achieve digital inclusion.
- Third hypothesis: Increasing users' levels of digital knowledge and competencies improves the effectiveness of benefiting from digital financial services.

Objectives of the Study

This study aims to achieve a set of objectives, summarized as follows:

- To provide a comprehensive theoretical framework on digital transformation and digital financial inclusion;
- To analyze the role of mobile payment services and digital financial services in promoting financial inclusion;
- To monitor and analyze the development of mobile payment operations and P2P transfers in Algeria;
- To assess the importance of these services in enhancing the efficiency of financial inclusion and empowering targeted groups.

Significance of the Study

The significance of this study lies in offering an in-depth understanding of the role of mobile payment services and digital financial services in expanding the scope of digital financial inclusion. It also seeks to enable policymakers and financial institutions to develop effective strategies for strengthening digital infrastructure, protecting users, and supporting underserved groups, thereby contributing to the achievement of digital transformation and sustainable and inclusive economic development.

Methodology of the Study

The study adopts a descriptive-analytical approach, utilizing numerical and statistical data related to mobile payment services and P2P transfers. It also relies on a review of previous studies and theoretical frameworks related to digital transformation and digital financial inclusion, in addition to employing tables and graphical representations to interpret results and trends.

Previous Studies

In order to enrich the research and establish a solid scientific foundation, reference was made to a set of previous studies that addressed digital financial services, digital transformation, and digital inclusion from various perspectives. These studies revealed diverse experiences in assessing the impact of digital transformation on improving access to financial services, enhancing the efficiency of financial transactions, and highlighting the importance of digital infrastructure and users' technical knowledge in the success of such initiatives. The most significant studies upon which this research is based are presented below:

- Jamila Salimi and Youssef Bouchi (2019), "*Digital Transformation between Necessity and Risks*," Journal of Legal and Political Sciences, pp. 944–967. This study aimed to explore the role of digital transformation within institutions,

with a particular focus on the challenges and risks associated with its implementation. The study emphasized that digital transformation has become a strategic necessity for improving performance and service efficiency; however, it also requires the establishment of effective protection and regulatory mechanisms to mitigate the technical and legal risks associated with digitalization.

- Jazia Hassini (2020), *“The Generalization of Digital Financial Services to Support Financial Inclusion in Arab Countries,”* Journal of North African Economies, pp. 97–114. This study focused on the role of digital financial services in expanding the base of beneficiaries of the formal financial system in Arab countries. It examined the challenges related to the widespread adoption of these services, such as weak digital infrastructure and limited levels of financial literacy among users. The findings demonstrated that the adoption of digital financial services contributes significantly to enhancing financial inclusion, particularly when supported by enabling policies and a clear regulatory framework.
- Houria Hamni and Ibtisam Toubal (2020), *“The Role of Information Technology Governance in the Success of Digital Transformation,”* Journal of Human Sciences, University of Oum El Bouaghi, pp. 1186–1202. This study examined the relationship between information technology governance and digital transformation within institutions. The results indicated that the presence of an effective IT governance system contributes to the success of digital transformation by improving risk management, ensuring the continuity of digital services, and enhancing institutions’ ability to achieve their digital objectives effectively.

Structure of the Study

The study has been divided into three main sections, as follows:

- First section: The theoretical and conceptual framework of digital transformation and digital financial inclusion;
- Second section: Digital financial services and their mechanisms in promoting digital financial inclusion;
- Third section: The role of mobile payment services in enhancing digital financial inclusion in Algeria.

2. The Theoretical and Conceptual Framework of Digital Transformation and Digital Financial Inclusion

The study of digital transformation and digital financial inclusion constitutes a fundamental basis for understanding the impact of technological innovation on the development of the financial sector. This section aims to present the theoretical and

conceptual framework of digital transformation by clarifying its definition, principles, and stages of implementation within institutions, in addition to reviewing the concept of digital financial inclusion and its components. This provides an integrated knowledge base for understanding the relationship between digital technologies and the expansion of access to financial services.

2.1. The Nature of Digital Transformation

2.1.1. The Concept of Digital Transformation

The Union of Arab Banks defines digital transformation as: “the process through which institutions, companies, or sectors transition to a business model that relies on digital technologies to develop and improve services, innovate products, and provide new revenue channels that enhance the value of their products and facilitate access for beneficiaries.”(Arab Banks Union, 2021, p. 1)___

Digital transformation is denoted by DT (Digital Transformation) and refers to transformation in business or government contexts through the implementation of radical changes that affect the business model, procedures, and operational processes. Such transformation may involve a complete change in the product itself or in the manner in which services are delivered. It may be strategic in nature, intervening across all organizational functions—from sales and procurement to information technology—and encompassing the entire value chain.(Salimi & Bouchi, 2019, p. 947)

It is also defined as: “the provision of a professional solution to a given issue through reliance on advanced digital technologies. It encompasses the fundamental changes brought about by digital technologies within institutions, which necessitates addressing digital transformation as a strategic issue that requires the development of comprehensive governance structures.”(Takyaline, 2025, p. 14)

Based on the foregoing definitions, digital transformation can be regarded as a strategic process aimed at redesigning business models, services, and operational processes within institutions in order to improve efficiency, foster product innovation, and provide new channels for reaching beneficiaries. It entails radical changes across all organizational functions, which requires the adoption of innovative solutions and comprehensive management structures to ensure the optimal utilization of digital technologies.

2.1.2. Steps of Digital Transformation

Researchers argue that the process of digital transformation within institutions proceeds through five fundamental steps:(Abdelrahman, 2019, p. 214)

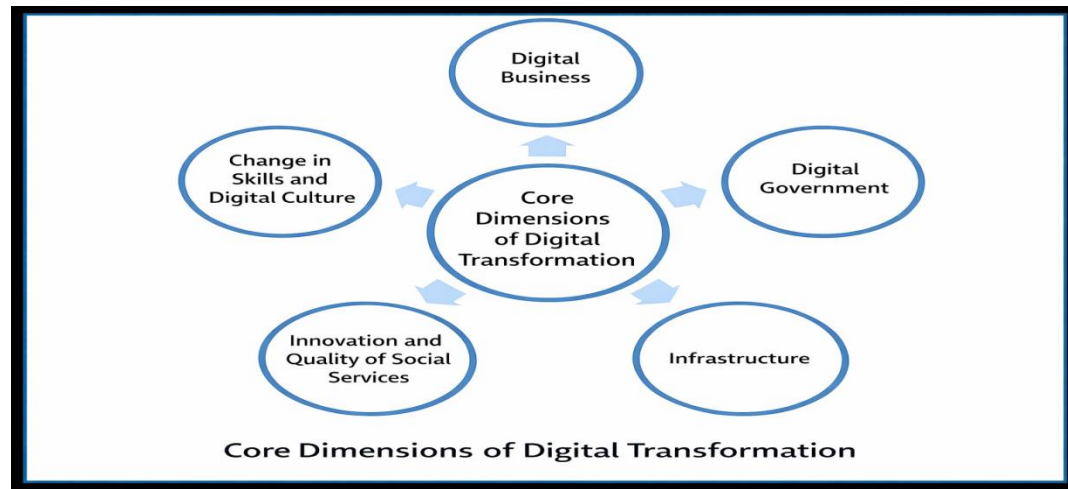
1. Formulating a digital strategy that defines the institution's vision and digital objectives in alignment with its business model;
2. Adjusting the organizational structure to achieve the flexibility required for the effective adoption of digital technologies;
3. Assessing the organization's digital capabilities and measuring its technical and skills readiness to support transformation;
4. Establishing a specialized unit for digital transformation to oversee the coordinated management and implementation of the digital strategy;
5. Identifying and addressing obstacles to ensure digital integration and the success of the transformation process.

2.1.3. Principles of Digital Transformation

The process of digital transformation is based on a set of fundamental principles, which include:(Rizk, 2022, p. 15)

1. Commitment of top management to setting ambitious and clearly defined objectives for digital transformation;
2. Restructuring the organization and establishing a digital unit within the organizational structure to support the transformation process;
3. Securing the necessary financial investments to initiate and accelerate digital transformation;
4. Forming a specialized team to manage and implement digital transformation effectively;
5. Promoting a digital culture and adopting a new operating model that keeps pace with digital changes;
6. Implementing digital initiatives that generate immediate returns and support innovation;
7. Building digital capabilities through upgrading digital technologies so that they become a strategic tool within the institution.

The following figure illustrates the main pillars required for effective digital transformation, highlighting the role of digital government and digital business in supporting and reinforcing this process.

Figure 01: The Five Fundamental Pillars for Effective Digital Transformation

Source: Walaa Magdy Rizk, *The Role of Digital Transformation in Supporting the Business Environment and Attracting Investments in Egypt in Light of Vision 2030*, Journal of Administrative Research, 2022, p. 15.

Figure 1 illustrates the core pillars underpinning successful digital transformation within institutions. The process relies on a clear strategic vision, advanced technological infrastructure, the development of human capabilities, and the promotion of a digital culture, in addition to adopting innovative and dynamic business models. Digital government contributes by providing a supportive regulatory, legislative, and technical framework, while digital business represents the practical application of technology within institutions to enhance efficiency and foster innovation. Together, these pillars form an integrated framework that ensures effective digital transition and generates sustainable added value at the level of institutional performance.

2.1.4. Challenges of Digital Transformation

Institutions and companies face several challenges that hinder the implementation of digital transformation programs and the achievement of their objectives. The most prominent of these challenges include: (Hamni & Toubal, 2020, p. 1189)

- Lack of clarity in setting priorities, which sometimes results in digital transformation not being included as a core strategic option;
- Limited budgets allocated for digital transformation projects;
- Concerns about information security risks associated with the use of advanced digital technologies;
- Shortage of qualified competencies and expertise capable of leading the transformation process and managing organizational change, which represents one of the most significant obstacles to the success of this pathway.

2.2. The Conceptual Framework of Digital Financial Inclusion

2.2.1. Definition of Financial Inclusion

Financial inclusion is defined by both the OECD and its affiliated International Network on Financial Education as: “the process through which access to a wide range of regulated formal financial services and products is enhanced, made available at reasonable cost and in sufficient form, and the use of these services and products is expanded among different segments of society, through the application of innovative approaches that include financial awareness and education, with the aim of promoting financial well-being and social and economic inclusion.” (Saidi & Flaq, 2021, p. 272)

It is also defined by Bank Negara Malaysia as: “providing appropriate financial services to all segments of society with good quality and at an affordable cost, thereby contributing to organized and sustainable economic growth and development.” (Takyaline, 2025, p. 39)

It is evident from the two definitions that financial inclusion is based on ensuring the availability of formal financial services to all segments of society with appropriate quality and cost, while incorporating innovation and financial literacy to enhance economic and social integration. Its role is also highlighted in supporting sustainable economic growth by expanding the usage of financial services and enabling individuals and institutions to access them effectively.

2.2.2. The Nature of Digital Financial Inclusion

The World Bank defines digital financial inclusion as: “the use of cost-effective digital means to reach financially excluded and underserved populations by providing a range of formal financial services that are appropriate to their needs, delivered responsibly, at affordable costs for clients, and sustainably for service providers.” (The World Bank, 2025)

Meanwhile, the Consultative Group to Assist the Poor (CGAP) defines digital financial inclusion as: “digital access to and usage of formal financial services by populations experiencing poverty and marginalization.” (Takyaline, 2025, p. 57)

It can be concluded from the two definitions that digital financial inclusion relies on leveraging digital technologies to expand access to formal financial services, particularly for poor and marginalized groups, in a manner that is responsible and sustainable. This approach aims to provide financial services at affordable costs that meet the needs of beneficiaries while ensuring the continuity of service providers. Consequently, digital financial inclusion serves as an effective tool for promoting financial integration and reducing social and economic disparities.

2.2.3. Core Components of the Digital Financial Inclusion Model

The digital financial inclusion model is based on three main components that operate in an integrated manner to provide secure and effective digital financial services to groups that are either underserved or inadequately served by traditional financial services, as follows:(CGAP, 2015, p. 2)

- **Digital Transaction Platform:**
The digital transaction platform constitutes the technical infrastructure that enables users to execute and receive payments and financial transfers, as well as to store value electronically. This is achieved through a device capable of sending and receiving transaction data and connecting—either directly or via digital communication channels—to a licensed financial institution, whether banking or non-banking, to provide electronic value services. These platforms allow for the provision of financial services at low cost, in a manner that expands financial access and enhances transaction efficiency.
- **Retail Agents:**
Retail agents serve as a complementary execution channel for digital platforms. Agents are equipped with digital devices connected to the communications infrastructure, enabling them to send and receive financial transaction data on behalf of financial institutions. These channels allow clients to convert cash into electronic balances or withdraw electronically stored value in cash. Additionally, agents may provide supplementary services according to applicable regulatory frameworks and under arrangements with the primary financial institution, thereby extending access to services for populations distant from banking centers.
- **Digital Devices:**
The devices used for executing digital financial transactions include mobile phones, which are employed to transmit data and complete financial transactions, as well as other tools such as payment cards linked to dedicated electronic devices, such as point-of-sale (POS) terminals. These devices serve as the primary medium through which clients interact with the digital platform and access financial services in a smooth and secure manner.

Furthermore, banking and non-banking institutions can offer additional financial services via the digital transaction platform targeted at financially excluded or underserved populations. These services may include credit, savings, insurance, and even securities, often relying on digital data to efficiently target clients and manage risks.

2.2.4. Requirements for Advancing Digital Financial Inclusion

Among the key requirements for achieving digital financial inclusion are the following:(Shili, 2021, p. 221)

- Ensuring data confidentiality and providing reliable mechanisms for user identity verification, in addition to protecting digital financial systems from cyberattacks

- and fraud, while developing electronic payment solutions that are attractive to small merchants and their customers;
- Providing accessible and user-friendly digital financial services for all segments, ensuring interoperability among different digital financial service providers, while guaranteeing service continuity and protecting users' digital identities and data, thereby safeguarding both funds and digital identities;
 - Efforts to eradicate global poverty cannot be limited to promoting access to digital financial services; users must also possess sufficient financial and digital literacy if the services are to improve the living conditions of the unbanked;
 - Providing a robust payments system and adequate digital infrastructure, along with appropriate regulations and strong consumer protection guarantees, ensuring financial integrity and transparency. Regardless of the type of digital financial service offered, it must be designed to meet the needs of underserved populations, such as women, the poor, first-time users of financial services, and those with low literacy and numeracy skills.

2.2.5. Risks of Digital Financial Inclusion

Digital financial inclusion entails a set of risks that may affect vulnerable and financially excluded groups, despite the opportunities it provides. The most significant of these risks include:(The World Bank, 2025)

- Risks associated with novelty: These arise from users' limited experience with digital financial products, services, and providers, making them more vulnerable to exploitation and mistreatment;
- Intermediary-related risks: These occur when clients deal with new service providers that may not be subject to the consumer protection standards applied to traditional banks and financial institutions;
- Digital technological risks: These include the possibility of service interruptions or data loss (e.g., payment instructions) due to technical failures, in addition to risks of data breaches and privacy violations associated with the digital storage and transmission of information.

Despite these risks, adoption rates of digital financial services in many markets indicate that consumers generally perceive the benefits of accessing formal financial services as outweighing the potential risks. Nevertheless, there remains a strong need for appropriate regulatory and supervisory frameworks to mitigate these risks and ensure user protection.

3. Digital Financial Services and Their Mechanisms in Promoting Digital Financial Inclusion

The financial sector is undergoing significant transformations due to digital advancements, which have created opportunities to enhance digital financial inclusion and

empower financially excluded groups. This section aims to shed light on digital financial services and explore their mechanisms for expanding access to financial services.

3.1. Concept of Digital Financial Services

Digital financial services are defined as: *“a system that enables the customer to access their accounts or any desired information, and to obtain various banking services and products through an information network connected to their computer or other electronic, digital, or automated devices.”*(Mahfoud, 2022, p. 254)

It is also defined as: *“financial services delivered through mobile phones, personal computers, the Internet, or cards linked to a reliable digital payment system.”*

Similarly, the McKinsey Report defines digital finance as: *“financial services provided via mobile phones, the Internet, or cards.”*(Elmeloudi & Fouqa, 2022, p. 429)

It is evident from the two definitions that digital financial services represent a qualitative leap in the delivery of banking services through the use of modern electronic means, enabling faster, more flexible, and efficient access to financial products. This approach contributes to promoting financial inclusion and expanding the base of beneficiaries, particularly traditionally underserved groups, thereby building a more inclusive and sustainable financial system.

3.2. Channels for Delivering Digital Financial Services

Digital financial services are delivered through a variety of electronic channels that allow clients to select, execute, and receive services entirely online without the need to visit a bank branch. The most prominent of these channels include:(Mahfoud, 2022, pp. 254-255)

- **Automated Teller Machines (ATMs):**
ATMs are among the most important modern electronic means for delivering banking services, allowing clients to perform a variety of transactions around the clock without human intervention, such as cash withdrawals, deposits, and balance inquiries, using a dedicated bank card.
- **Banking via Landline Telephone:**
This service enables clients to contact a designated number to reach a customer service center, where staff can access the client's information, verify their identity, and provide the requested banking services. This technology helps banks reduce time and costs while improving service quality.
- **Internet Banking:**
Internet banking refers to banking services provided over the Internet, enabling clients to conduct financial transactions using their personal computers without needing to visit a bank branch. Services include funds transfers, bill payments, account statements, and other electronic transactions.

- **Mobile Banking:**
The use of mobile phones as a primary channel for accessing financial services has increased significantly. Banking applications allow clients to perform multiple operations such as transfers, account monitoring, and bill payments, making mobile banking one of the most important tools for financial inclusion in the digital era.

Digital financial services are increasingly important for investors as they facilitate monitoring investment opportunities, executing contracts, and performing transactions and transfers electronically. This has prompted banks to develop and expand their digital services to enhance their competitive capacity.

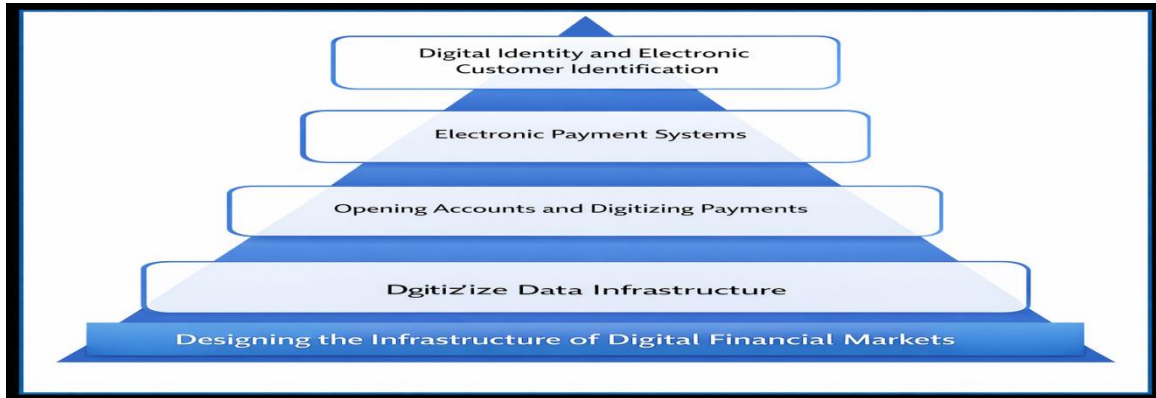
3.3. The Role of Digital Financial Services in Promoting Financial Inclusion

Digital financial services constitute an effective tool for expanding financial inclusion, as they provide vulnerable groups with easy access to financial services. This, in turn, contributes to supporting economic initiatives and reducing poverty, as follows:(Hassini, 2020, p. 111)

- Digital financial services enable individuals to establish their own businesses and generate sustainable income, thereby contributing to poverty reduction;
- Financial inclusion provides broader economic opportunities for vulnerable groups by facilitating access to formal financial services;
- The role of digital financial institutions extends beyond service provision to include educating individuals on credit management and business development;
- Reaching underserved populations requires the use of innovative channels and digital products that ensure efficiency and sustainability;
- Technology companies support the digital transformation of the financial sector by offering innovative solutions to enhance financial inclusion;
- Statistics indicate that over 200 million micro, small, and medium enterprises are unable to access banking services;
- Digital transformation empowers financial service providers to leverage accurate data and gain a competitive advantage by accelerating service delivery;
- Developing digital products specifically designed for vulnerable groups improves their financial inclusion opportunities and supports economic development.

The following figure illustrates how financial technology contributes to enhancing digital financial inclusion by supporting and developing the digital financial services ecosystem:

Figure 02: How Financial Technology Supports the Enhancement of Digital Financial Inclusion



Source: Ben Alqama Malika, *The Role of Financial Technology in Enhancing Financial Inclusion – The Bahraini Experience as a Model*, Financial Technology: Innovations and Digital Solutions, Yahia Farès University, Médéa, 2021, p. 214.

It is evident from Figure 02 that the process of consolidating digital financial inclusion begins with establishing an integrated infrastructure comprising several key stages. These stages start with opening digital bank accounts and enabling individuals to access remote transfer and deposit services, followed by the digitization of payments and the adoption of electronic payment methods as an effective and secure alternative to traditional cash transactions.

The infrastructure then evolves to include the enhancement of national and international payment systems, facilitating faster financial operations, ensuring transparency, and reducing costs, in addition to strengthening cybersecurity in digital transactions. The adoption of digital identity systems and the “Know Your Customer (e-KYC)” framework represents a critical step in building trust in the digital ecosystem by enabling financial institutions to accurately verify clients’ information in compliance with regulatory standards.

These integrated stages form the foundation for expanding access to digital financial services and enhancing their effective use across different segments of society, including marginalized groups and those previously unbanked. They also contribute to a smooth transition toward a digital economy and greater financial inclusion by providing secure, fast, and cost-efficient financial services, thereby promoting economic development and supporting financial sustainability for both individuals and institutions.

4. The Role of Mobile Payment Services in Enhancing Digital Financial Inclusion in Algeria

Mobile payment constitutes one of the fundamental pillars of the digital financial services ecosystem and is increasingly important in efforts to promote digital financial inclusion in Algeria, due to the convenience it provides for conducting financial transactions and its lower associated costs compared to traditional methods.

4.1. The Current State of Mobile Payment Services in Algeria

Within the framework of digital transformations in the national financial sector, mobile payment services have witnessed remarkable growth in recent years, supported by technological advancements and regulatory improvements.

4.1.1. Evolution of Mobile Payment Transactions in Algeria (2022–2024)

The following table presents the annual data on mobile payment transactions in Algeria for the period 2022–2024. This allows us to track trends in the usage of this service and evaluate the extent to which this digital channel has been adopted for financial transactions.

Table 01: Annual Development of Mobile Payment Transactions in Algeria (2022–2024)

Year	Month / Period	Total Number of Payment Transactions	Total Amount of Payment Transactions (Million DZD)
2022	November	2 019 180 Transaction	1 462
2022	December	2 165 941 Transaction	1 491
2023	Annual Total	39 283 478 Transaction	27 855
2024	Annual Total	58 465 858 Transaction	43 590

Source: Prepared by the researcher based on the GIE Monétique website, accessed on 30/10/2025.

The data in Table 01 indicate that mobile payment activity in Algeria experienced significant growth during the period 2022–2024. In November 2022, the number of transactions reached approximately 2.019 million, with a total value of 1,462 million DZD, rising in December of the same year to 2.16 million transactions valued at 1,491

million DZD. This initial growth laid the foundation for further expansion in subsequent years, with 2023 recording around 39.28 million transactions totaling 27.85 billion DZD. The upward trend continued in 2024, reaching 58.46 million transactions with a total value of 43.59 billion DZD.

This rapid development reflects the increasing adoption of digital payment services, supported by improvements in digital infrastructure and heightened user awareness of the importance of digital financial services, as well as institutional initiatives aimed at promoting digital financial inclusion. The simultaneous increase in both the number and value of transactions underscores the vital role of financial technology in supporting the digital transformation of the banking sector, enhancing the efficiency of financial transactions, and expanding access to digital financial services across various segments of society, thereby contributing to broader financial inclusion and sustainable economic development.

4.1.2. Evolution of Mobile Payment Transactions in Algeria in 2025

Mobile payment continues to record high activity rates in Algeria during 2025, confirming the upward trend observed in previous years (2022–2024). This reflects the ongoing expansion in the use of digital financial services, as well as increasing user awareness of the importance of these services in facilitating financial transactions and promoting financial inclusion among populations previously unbanked.

The following table presents the evolution of the number and value of mobile payment transactions during the first eight months of 2025.

Table 02: Evolution of Mobile Payment Transactions in Algeria in 2025

Month	January	February	March	April	May	June	July	August
Total Transaction Volume	6.369 702	4 870 175	5 592 044	5 481 458	5 694 994	5 584 566	6 206 817	6 103 874
Total Volume of Transactions in Million DZD	5 276	3 725	4 510	4 161	4 480	4 188	4 991	5 146

Source: Prepared by the researcher based on the GIE Monétique website, accessed on 30/10/2025.

The data in Table 02 illustrate the continued growth in the adoption of digital payment solutions during 2025. In August, the number of transactions reached approximately 6.10 million, with a total value of 5,146 million DZD. Except for February, which recorded a

slight decline in both transaction volume and value, variations in total transaction values are observed across other months despite a relatively stable number of transactions. This reflects differences in individual transaction sizes depending on economic activity and consumer behavior, and confirms the ongoing role of digital financial services in promoting financial inclusion, facilitating secure and fast access to financial transactions, and supporting small and medium enterprises and vulnerable groups.

This 2025 trend underscores the pivotal role of financial technology in supporting the digital transformation of Algeria's banking sector and enhancing financial inclusion for groups previously excluded from traditional banking services. It also highlights the importance of continuously improving digital infrastructure and providing digital financial products designed to meet beneficiaries' needs, thereby expanding financial inclusion and promoting sustainable economic development.

4.2. Evolution of Person-to-Person (P2P) Transfers in Algeria

Person-to-person (P2P) financial transfers represent one of the key components of digital financial services, providing speed and convenience in transferring money between individuals without the need to visit banks or traditional financial institutions. This type of transfer contributes to promoting financial inclusion, particularly among populations previously excluded from formal banking services, and supports the development of the digital economy while improving cash flow within the community.

4.2.1. Evolution of P2P Transfers in Algeria (2022–2024)

The following table presents the annual evolution of the number and value of P2P transfer transactions during the period 2022–2024.

Table 03: Annual Development of P2P Transfer Transactions in Algeria (2022–2024)

Category / Year	November 2022	December 2022	Annual Total 2023	Annual Total 2024
Total Transaction Volume	765 550	813 291	17841108	36 236137
Total Volume of Transactions in Million DZD	9 388	10 381	241 073	503 679

Source: Prepared by the researcher based on the GIE Monétique website, accessed on 30/10/2025.

The data in Table 03 indicate steady growth in the use of P2P transfers during the period 2022–2024. The total number of transactions increased from 1.58 million in 2022 to 36.24 million in 2024, while the total payment values experienced initial fluctuations

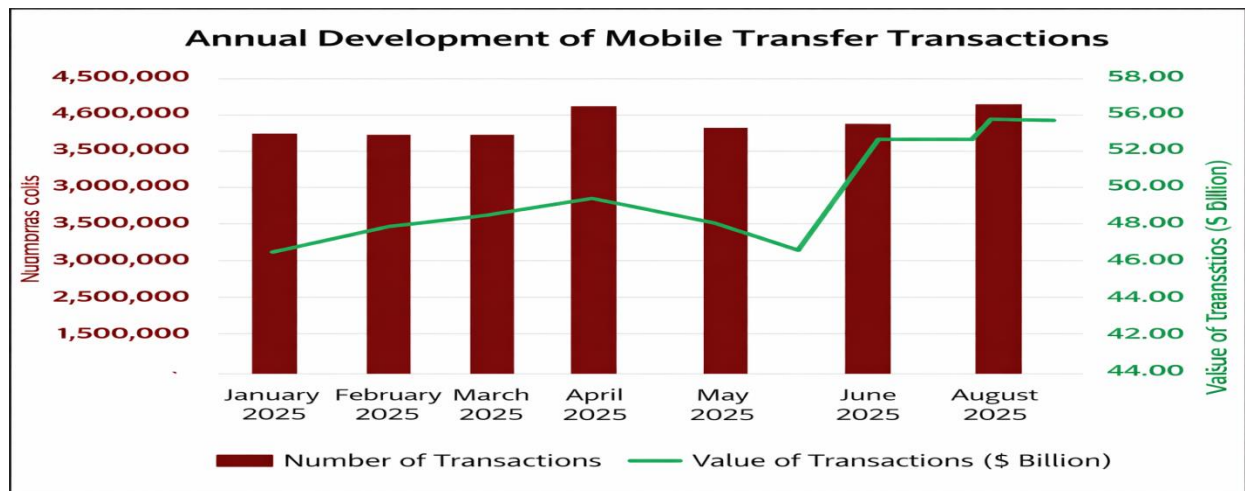
but later rose to 503.68 million DZD in 2024. This growth reflects the expanding reliance of individuals on digital transfer services, driven by the development of digital infrastructure and increased user awareness of the importance of speed, security, and efficiency in financial transactions. It also highlights the role of these services in supporting financial inclusion, particularly for populations previously excluded from traditional banking, by enabling direct and rapid money transfers between individuals.

These data confirm the vital role of P2P digital financial transfers in promoting financial inclusion in Algeria by facilitating access to digital financial services and easing cash flow among individuals. The continuous increase in transaction volumes and values underscores the importance of developing digital infrastructure, raising user awareness, and providing innovative financial services that meet the needs of diverse groups, thereby enhancing financial inclusion and supporting sustainable economic development.

4.2.2. Evolution of P2P Transfers in Algeria in 2025

The following figure presents the monthly evolution of domestic person-to-person (P2P) financial transfers in 2025. This figure aims to provide a clear picture of the dynamics of digital financial transfers and to illustrate the monthly trends in financial activity within the digital economy, reflecting the extent of individuals' reliance on these digital channels.

Figure 03: Monthly Evolution of Person-to-Person (P2P) Transfer Transactions in Algeria during 2025



Source: GIE Monétique website, accessed on 30/10/2025.

The data presented in Figure 03 indicate a gradual increase in both the total transaction value and the number of P2P transfers from January to August 2025, reflecting the growing adoption of digital transfers. The total transaction value rose from approximately

48 billion DZD in January to over 55 billion DZD in August, while the total number of transactions increased from around 3.6 million to approximately 4 million.

It is also observed that July and August recorded the highest levels of financial activity, which may reflect the influence of economic seasons or the disbursement of financial entitlements during these periods. Conversely, some months, such as June, showed relatively lower activity, indicating natural seasonal fluctuations in transaction volumes.

From the presented data, it can be concluded that digital financial transfers (P2P) experienced continuous growth during the first eight months of 2025, with monthly peaks reflecting seasonal economic trends and user behavior. This rising trend highlights the role of digital transfers in promoting digital financial inclusion and facilitating access to financial services for individuals. It also indicates a greater reliance on digital channels for daily financial operations. Accordingly, developing these services and improving their infrastructure can be considered a strategic step toward enhancing financial efficiency and increasing reliance on the digital economy in the near future.

5.Conclusion

This study aimed to analyze the role of digital financial services, particularly mobile payment services, in enhancing digital financial inclusion in Algeria. The study focused on the capacity of these services to empower financially underserved groups and improve the speed and efficiency of financial transactions, while examining the factors influencing the success of digital financial inclusion, including digital infrastructure, users' digital literacy, and the regulatory frameworks governing these services. The main findings and recommendations are summarized as follows:

Study Findings:

- Mobile payment services and digital financial services enable financially underserved groups to access formal financial services easily;
- These services improve the speed and efficiency of financial transactions, accelerating cash flows among beneficiaries;
- The success of digital financial inclusion is closely linked to the development of digital infrastructure and the strengthening of cybersecurity;
- Enhancing users' digital skills and knowledge is a fundamental condition for optimizing the benefits of digital services;
- Clear regulatory frameworks and consumer protection legislation play a key role in supporting the sustainability of digital financial services.

Study Recommendations:

- Continue investing in the development and expansion of mobile payment services;

- Strengthen digital infrastructure to ensure fast and efficient financial transactions;
- Enhance cybersecurity and protect users' digital data;
- Provide training programs to improve users' digital skills and knowledge;
- Establish clear regulatory frameworks and legislation to support consumer protection and ensure the sustainability of digital financial services.

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