



The Digital Transformation In Algeria's Banking Sector: What Opportunities For The Country's Economy?

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ABSTRACT

The purpose of this paper is to describe the advances and implications of digital transformation for banking and the national economy. The hypothesis posed is that digitalization has led to upheavals in the traditional model of providing banking services, which consequently makes it possible to participate in national production. To verify this hypothesis, a descriptive and analytical approach to banking sector data was adopted. The results of the study revealed that digitisation is making considerable progress, playing a key role in in the development of payment methods and consequently in financial inclusion and economic growth in Algeria.

Keywords: digital transformation, payment methods, Fintechs, financial inclusion, economy.

1. Introduction

In recent years, the financial world has been undergoing major transformations due, on the one hand, to rapid changes in customer lifestyles and the evolution of the banking business and, on the other hand, to the digital revolution. For more than two decades now, the phenomenon of digitisation has not just been an issue, but a daily reality that is changing all our activities. This digital transformation has gone through several stages in its evolution. First came computers, then the internet, followed by the emergence of mobile phones, which gradually gave way to smartphones. Digitalisation is increasingly being adopted in the banking sector, with the emergence of new payment methods and new applications. In its study, Gartner, 2012 reported that banks invest three times more in computing than any other company.

Banks are therefore obliged to face up to the digital challenges by strengthening their capacity for innovation in order to meet the needs of this new connected world. In other words, banks need to review their business model, which is the way forward for creating value. It should be noted that the traditional banking model concerns traditional banking operations such as granting credit, withdrawing or depositing money and issuing bank cheques. These operations are carried out in the physical branch, where availability is linked to the bank's working hours.

However, the technological revolution and the advance of the Internet have turned the banking model on its head, leading to the adoption of a new model, the e-business model, which consists of offering online and mobile services that enable customers to carry out their transactions independently, quickly and easily.

Over the past few years, Algeria's banking sector has made great strides in the area of digital banking, with the introduction of new digital payment products and services. Efforts to digitise began in 2006 with the modernisation of the payment system by introducing two forms of payment: the large-value payment system and the bulk payment system. On the one hand, this was followed by the creation of the GIE Monétique (Groupement d'Intérêt Economique Monétique) in 2014 and the opening up of online banking. The GIE is made up of "Algérie Poste" and 18 banks, and its aim is to promote electronic payments by extending the use of electronic means of payment in Algeria. Internet payment by CIB card has been operational since October

2016, when the service was initially opened up to major billers: the energy company (gas and electricity) and the water distribution company, insurance companies, air transport, fixed and mobile telephony, as well as some government departments.

In this context, the purpose of this contribution is to describe the state of play of the digital banking transformation in Algeria, while revealing its effects on the activity of banks and on the economy in general. The working hypothesis stipulates that the transition to digital banking has changed the business model in terms of services and banking activities, enabling the sector to contribute to diversification and economic growth. In order to test this hypothesis and respond to our problem, we have opted for a descriptive and analytical approach consisting of examining the impact of the digital transition on the banking sector and on the Algerian economy. The work thus consists of studying data taken from the websites and reports of certain institutions.

This work is divided into three sections. The first section is theoretical and deals with the general framework relating to digitalisation, particularly in the banking sector. The second is devoted to the study of digital transformation in the Algerian banking sector. The third describes how digitalisation is a major growth lever for banks and for the Algerian economy as a whole.

2. Digital transformation in the banking sector

Banking is one of the sectors most affected by digital transformation. Thanks to NICTs and the Internet, the banking business is developing more and more, and digital technology has made it possible to reduce costs and make the bank more profitable.

In the context of the banking sector, digital transformation involves various initiatives aimed at motorising programmes and simplifying processes that encourage faster and more fluid engagements between the bank and its customer, and closer alliances between banking sector players by promoting an acceleration of internal and external exchange flows thus creating a circle of commercial opportunities. (Ait Ouhammou. et al., 2019 p 202).

2.1. Digital transformation: definition and characteristics

Digital transformation is the combination of three elements: 'dematerialisation', 'automation' and 'reorganisation of intermediation schemes' affecting all business processes and business models, as well as stakeholder relations (Varenne and Godé, 2023, p 16). This definition was completed by Vial 2019, who emphasised the important role of digital technologies. (SMACIT: Social, Mobile, Analytics, Cloud, and Internet of Things).

Digitalisation refers to the process of transition from traditional mechanisms to the information age, characterised by greater efficiency or performance. The main aim of digitisation is to improve and simplify work by using digital data rather than physical documents. Indeed, e-commerce, e-mail, business software, mobile applications, etc. have been the consequences of digital transformation. Digital transformation involves integrating new technologies into activities linked to an institution so that digital developments can be adapted (Achari & Hattab, 2023, p 129).

Digital transformation has become essential in modernising institutions and integrating digital technologies into businesses. Companies that adopt digital transformation respond to their customers' wishes and develop innovative new products and services. Digitalisation increases a company's reach, enabling it to reach new customers online. Digital transformation is the set of 'changes induced by the development of digital technologies that are occurring at a frantic pace, disrupting the way value is created, social interactions, the conduct of business and, more generally, the way we think (Abdelkader & Fethi, 2017, p 45).

The digitalisation and automation of banking operations generate several benefits for customers. The first is availability, which, with automation, makes banking services accessible 24/7 (Ait Ouhammou & al., 2019). The second concerns the speed of operations, which can be done in a few clicks without even bothering to go to the branch. Another advantage is the ability to monitor the progress of transaction processing.

2.2 Reasons for digitising the banking sector

Following the emergence of digital transformation, banks are gradually moving online. The reasons for the digitalisation of banks can be summarised as follows:

2.2.1. The consequences of the subprime crisis

The 2008 financial crisis had a profound impact on the banking sector, due to the unstable political and economic context, the change in customer behaviour and the emergence of new players. New regulations in the sector, including the Basel III measures aimed at protecting investors and strengthening the solvency of

banks, have had a direct impact on banks. To cope with this situation and adapt to the new regulatory environment, banks had to rethink their business and find ways to cut costs. Digitising certain operations was an interesting alternative. In addition, the loss of confidence in banks has led them to reinvent themselves by introducing a new business model and creating a new customer relationship.

2.2.2. Changes in customer behaviour

For several years now, banks have been experiencing a new customer context, taking into account the dematerialisation of exchanges and the need for personalisation expected by customers. Customers are increasingly demanding banking services that are quick and easy to access, at their convenience. Faced with this demand, banks have reacted by using technology, for example by offering mobile transactions 24 hours a day in a simple way and by creating frequent conversations, which has helped the bank to understand their expectations in greater depth (Jihane J. and Ali O., 2023).

2.2.3. The covid 19 health crisis

The covid 19 health crisis, which led to restrictive health measures, was a real catalyst for digital transformation. First of all, it should be noted that the pandemic caused the cancellation of several events and conferences due to imposed confinement, which pushed companies to find other solutions to deal with this situation. The pandemic has made the use of remote payment methods essential within all organisations. As a result, the pandemic has rethought all working methods, leading to the democratisation of teleworking, which allows people to work from home.

The rise of digital technology is accompanied by changes in the way people consume, produce and interact with each other.

2.2.4. The emergence of Fintechs

The term Fintech is a combination of two words, 'finance' and 'technology', referring to a group of start-ups innovating in the financial sector using new technologies. Fintech represent an emerging area of financial services that is growing rapidly for financial institutions (Ryma D. & Lila A. 2020). Fintech has several activities, such as opening online accounts, providing customers with bank cards, crypto-currency applications and offering money transfer applications outside the banking circuit. In addition, these companies have so-called crowdfunding websites that allow individuals to borrow money without going through a bank.

These services respond perfectly to the expectations of connected customers, making fintechs a form of growing competition.

2.2.5. The development of online banking

Traditional banks did not cover all customer needs, hence the development of e-Banking. In addition, physical banks operated at fixed hours, causing dissatisfaction among customers who wanted to access their accounts at their convenience. So they demand e-banking services that are available at any time. E-banking is the product of different generations of electronic systems, such as telephone banking, computer banking and automated teller machines (ATMs).

Online banking appeared on the market around 2000. It provides services similar to those of a traditional bank, such as account opening, money transfers and withdrawals, loans, etc. These banks have attracted a large number of customers because of their greater advantages over traditional banks. They save time, with access available at any time at the click of a telephone or computer, which is easy for customers. In addition, these banks pose a threat to traditional banks, as the former are often visited by customers (Bouacheria, & Salhi, 2022, p 98). Given that users benefit from using electronic banking services comfortably, simply and quickly, we therefore expect widespread coverage in the future, since people can access their bank at any time and any place. According to Boumédiène & Renaud (2021, p 818), e-Banking is a term that implies the use of computers, and therefore automatic delivery by electronic means such as 'Internet Banking', and also takes into account other possible devices such as mobile 'Mobile-Banking', telephones, digital televisions 'TV Banking' '... etc.

3. The current state of digital banking transformation in Algeria

In Algeria, the banking system has made remarkable progress in the area of new payment methods. This development has led to a boom in digitalization within banks. The Monetary and Banking Law has introduced a number of new features, such as the strengthening of supervision through the creation of the Financial Stability Committee, the development of Islamic finance and the possibility of issuing a digital currency (Digital Algerian Dinar), which will be controlled and managed by the Bank of Algeria.

The new Money and Banking Act 23-09 of 21 June 2023 aims to modernise the banking system in Algeria and strengthen the functions of the Bank of Algeria in terms of banking supervision and regulation. However, the ultimate objective of this law is to strengthen the new investment code, which will enable Algeria to adapt to the international context in terms of banking techniques and practices and the regulation of foreign trade (Ministry of Finance, 2023).

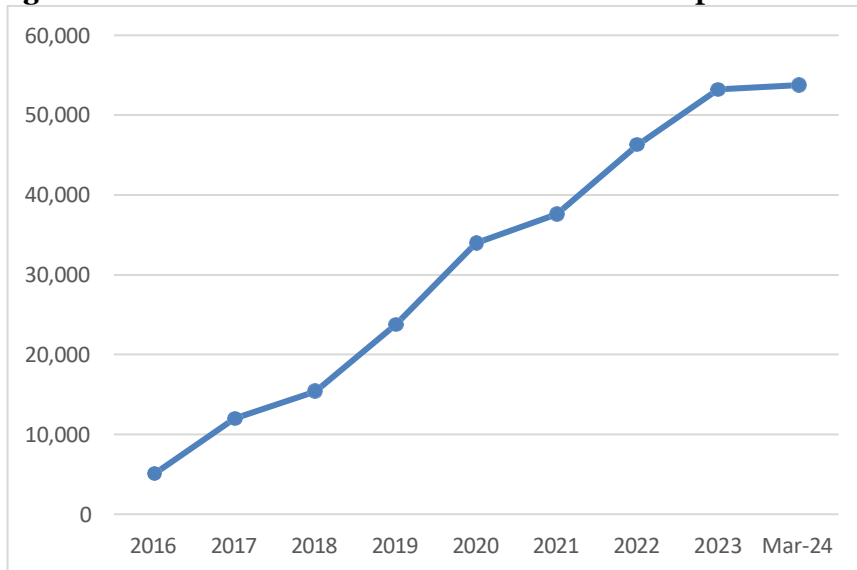
3.1. New forms of payment

Payment is the activity most affected by the introduction of new solutions based largely on emerging technologies. For example, contactless payment methods have been proposed and have undergone significant development, particularly since the Covid 19 health crisis. In what follows, we will present the development of a number of indicators relating to digitisation within the banking sector.

3.1.1. Payment transactions carried out via electronic payment terminals

The number of electronic payment terminals (TPEs) has risen to 53756 in 2024, compared with 3561 in 2021.

Figure. 1: Number of transactions carried out via Eftpos terminals

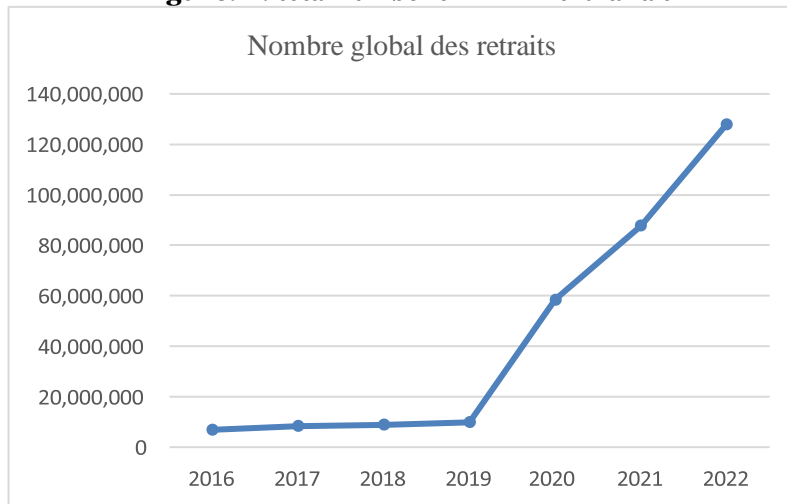


Source: Compiled by the authors based on GIE data (2024)

3.1.2. ATM withdrawals

The increase in ATM transactions can be explained by a change in the behaviour of cardholders, who prefer withdrawals from ATMs to withdrawals from bank or post office counters. This change in behaviour is due, on the one hand, to the circumstances of the covid-19 health crisis and, on the other, to the launch of CIB/Edahabia interoperability, which came into force on 05 January 2020.

Figure. 2: total number of ATM withdrawals

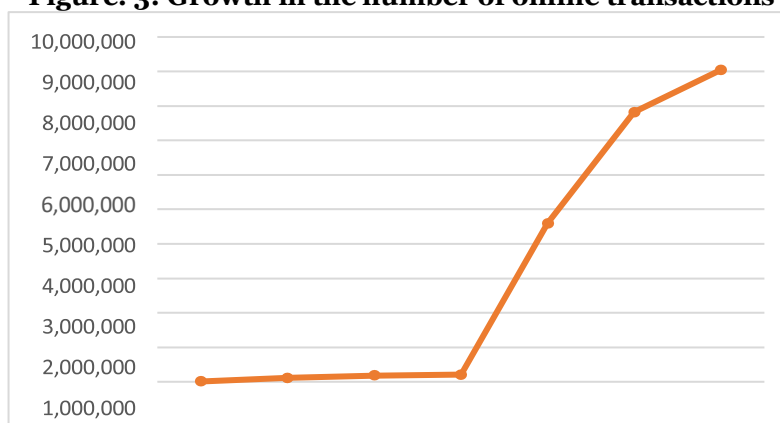


Source: Compiled by the authors based on GIE data (2023)

3.1.3. Number of online transactions

The number of online transactions has grown significantly since 2019, reaching more than 9 million by 2022.

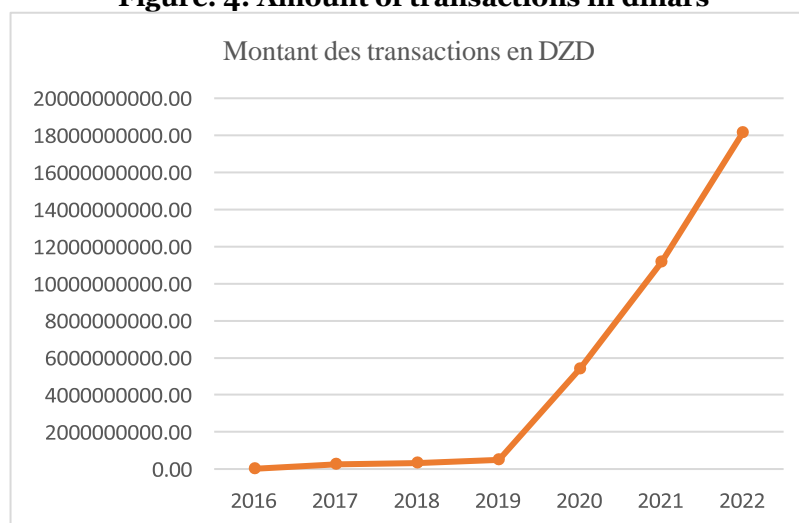
Figure. 3: Growth in the number of online transactions



Source: Compiled by the authors based on GIE data (2023)

In terms of amounts in dinars, the graph below shows that online transactions have been growing steadily since the launch of E-payment. Between 2016 and June 2023, the number of online transactions exceeded 27 million, the equivalent of 49 billion DZD. This large number of transactions can be explained by the increase in the number of members of the e-payment system. There are currently 379 web merchants using the interbank internet payment system (GIE, 2023). It should be noted that the telecommunications sector is the most active in online payment. It should be noted that the statistics posted since 2020 concern both CIB and Edahabia card transactions.

Figure. 4: Amount of transactions in dinars



Source: Compiled by the authors based on GIE data (2023)

3.1.4. The amount of mobile payments

Launched in Algeria in 2020, mobile payment or M-payment enables consumers to pay for their purchases from their mobile phone using an application linked to the interbank network in order to make transactions that will be debited from their CIB card or that of Algérie Poste (Edahabia). The transaction is carried out using a QR code generated by the merchant. The interest in using the mobile as a payment channel can be explained by the penetration rate of this tool, the national coverage of operators and the ease with which it can be used as a means of communication and leisure. The first M-payment application in Algeria was M-Pay. Consumers can make low-cost payments to merchants using the application, up to a ceiling of between 100,000 and 200,000 dinars for individuals and up to 1,000,000 dinars per month for holders of corporate cards, without incurring additional charges. The small commission charge is borne by the merchant and ranges from 10 to 300 dinars maximum.

3.2. The emergence of new operators

With the arrival of new technologies, the financial sector in Algeria has seen the entry of new competitors, including both banking and non-banking operators.

3.2.1. New banking actors

Online banks, known as branchless banks, offer definite advantages, especially for regions poorly served by traditional banks. The banking services they offer are available 24 hours a day, 7 days a week. By accessing their account, customers can carry out transactions from home, such as paying bills. This advantage improves financial inclusion by meeting the needs of remote populations. What's more, because of the low costs incurred by online banks, the transaction fees charged to customers are lower than those charged by traditional banks. This encourages daily use of banking services. The range of products and services offered by online banks includes mobile payment, opening an online account, etc.

It should be noted that the first bank to adopt the digital banking concept was BNP Paribas El Djazair (Meslem, 2023). However, set up by Natixis, Banxy was the first mobile bank available free of charge on smartphones. Banxy makes it easier to access the bank's day-to-day services and transactions, all from a distance. Opening a bank account remotely takes just a few simple steps and very little administrative effort. Likewise, Banxy delivers means of payment (card and cheque book) free of charge wherever the customer chooses.

3.2.2. New non-bank actors

The digital transformation of the financial sector in Algeria has led to the emergence of start-ups specialising in financial technology. Indeed, several companies have been introduced in this field, including Digital Finance Algeria (DFA), a company specialising in the creation of innovative digital financial solutions for advising and supporting banks. The group offers an online banking platform including online banking, mobile banking, automatic payment machines, etc. as well as mobile financial services such as NET info MFS.

BEYN, a start-up whose role is to boost the performance of banks and financial institutions by improving customer relations and reducing transaction processing costs through digitalization, offers a wide selection of products, such as digital banking solutions (Sela, Kantara, Manara, Nazra) and other electronic payment services (Wimpay, Teqa).

The online consultancy platform Moustachir is also present, with the main aim of offering professional consultancy services in various fields such as entrepreneurship, economics and finance, artificial intelligence, etc...

4. The role of digitisation in financial inclusion and economic growth

Initiatives to modernise the payment system in Algeria have led to an increase in loans to finance the needs of individuals, particularly consumer credit and property loans. As for investments, loans to the economy have increased significantly, reaching more than DA 10,000 billion by June 2022. In addition, the measures taken to develop the sector and diversify supply have also encouraged the development of Islamic finance in Algeria, which will help to attract more funds and improve financial inclusion in the country.

At the same time, with the aim of penetrating other foreign markets, new measures have been taken by public banks that have recently succeeded in opening subsidiaries abroad, particularly in Africa and Europe. Furthermore, according to the GIE Monétique, the development achieved in terms of digitisation has led to the issue of 17,076,759 interbank cards. This number was achieved by the end of the first quarter of 2024. The creation of a financial institution specialising in housing, by transforming the Caisse Nationale du Logement into a financial institution specialising in housing, also confirms the public authorities' desire to develop this sector and offer new financing opportunities.

Similarly, the revision of the 2003 ordinance on currency and credit aimed to address recent developments in the banking environment, including the economic, financial, and technological transition that Algeria is undergoing. The emergence of financial technology, or what is called Fintech, plays a crucial role in the banking of resources that circulate outside the banking system. This highlights the interest for banks to integrate the digital solutions offered by these innovative companies into their service offerings and to collaborate with them. Indeed, the electronic payments and savings products offered by these startups help to reduce the issues related to the informal economy as well as promote financial inclusion.

Moreover, digital technologies contribute to the transformation of markets and economic opportunities. This was confirmed by the World Bank in 2021, stating that the economic value added by mobile technologies and services amounted to \$4.5 trillion, which is 5% of the global GDP.

5. Conclusion

At the end of this study, we conclude that the banking sector has undergone several changes in its activities, particularly in the distribution of products and services to customers. These changes are known as digital transformation, which results from the integration of new technologies into the practices and activities of banking. Digital transformation includes innovation and the introduction of digital payment methods that rely on computing, the internet, and specific software, aimed at optimizing the organization and development of banking.

The emergence of new technologies and their adoption have changed the behavior of bank customers, who now demand products and services that are available, personalized, and at lower prices. On one hand, and on the other hand, the competitive nature of the banking sector leads to a race for innovation in order to offer more attractive pricing and for the bank to enhance its competitiveness.

The analysis of the various aspects of digital banking transformation in Algeria revealed that the banking system has made progress, particularly in the area of new payment methods. The data provided by the ministry demonstrates the positive evolution of digitalization. Indeed, the growth concerns several variables, including the number of bank accounts, the number of debit cards, the amount and number of payments made via point-of-sale terminals, cash withdrawals from ATMs, and mobile payments. Hence the improvement in the quality of banking services.

In addition, the implementation of new financial and regulatory reforms has allowed the sector to enhance its attractiveness and efficiency, particularly with the development of Fintechs. This latest result has the consequence of drawing in financial resources that escape the formal sector and developing financial inclusion. It is worth noting that the savings collected are a key factor in financing investment, which in turn fuels economic growth. The data generated by the banking system allows us to validate our working hypothesis.

Despite the reforms undertaken in the banking sector in Algeria, and the results displayed in terms of new payment methods or the startups introduced in the finance sector, there is still much work to be done. Indeed, these services themselves pose risks both for their users and for the banking system. Among these risks, we highlight privacy protection, unequal access to technology, cybersecurity, and financial integrity, which is why authorities must regulate, control, and supervise all these aspects with the utmost attention. Another problem to solve is related to financial literacy, which plays a crucial role in promoting digital culture in Algeria, highlighting the importance of awareness campaigns in promoting and familiarizing people with digital tools.

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