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Digital Transformation and Financial Inclusion: A Strategic Imperative for Morocco's Banking Sector

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Abstract

This paper studies the current state of the Moroccan banking system in the context of digital economy development, to establish the benchmarks and needs for banking regulation, and to study the potential possibilities of digitalization of relations and transactions in the banking sector in the mechanism of implementing prudential rules. Digital transformation in the banking industry is associated with obstacles that seem to hinder the smooth implementation of digital approaches. This issue has not been adequately addressed in the current academic literature. The main purpose of this qualitative exploratory study is to identify the main perceived obstacles to digital transformation in the Moroccan commercial banking sector from a point of view and to analyse them accordingly. However, challenges such as low financial penetration and mismatches with customer needs persists. The digitalization of financial services emerges as a promising avenue to address these issues, significantly increasing financial access and inclusion in Morocco, in line with trends observed in other African Nations.

Keywords

Moroccan banking sector, digital economy, digital transformation process, financial services.

Introduction

Digital technology is generating a lot of interest in the world and Morocco is not spared. This transformation is transversal and concerns all economic activity sectors; it has received considerable attention in the areas of management, business, information systems, information technology, and marketing. The developments in information and communication technologies in the digital age have significant effects on organisations perspectives. Changes in the business ecosystems affect the strategic decision of the organisations related to the external and internal environment.

This digital transformation and the adoption of new technologies raise a growing number of questions about how traditional regulations, companies, strategies, and management practices can implement these changes in order to create new innovative practices and improvements to the existing models with the help of digital technology. Based on the further continuous digital development of lifestyles and consumer behaviour changes, the world has become more and more informed, transparent and efficient. As a result, and in order to satisfy these new market changes, Organisations have to adjust by reforming and reconsidering their traditional base (Gomber, Kaufmann, Parker, & Weber, 2017).

Industrial companies, public administration, educational institutions, banking and financial sector...etc, are all subject to digital transformation, which has a significant impact on these businesses. One of the main drivers of the digital economy development is the financial sector, which occupies the second position, behind telecommunications (Schepinin & Bataev, November 2019), due to the digital transformation of financial services systems by financial technologie (Fintech), disruptive innovations through the new market entrants that challenge the position of traditional financial institutions (Breidbach, Keating, & Lim, 2020). In this regard, banks in particular have been at the front of the technology revolution, characterised by rapid development and innovation of digital services, and exponential rhythm of change (Krasnikolakis & Tsarbopoulos, 2020).

In the banking sector, the critical issue seems to be that traditional financial services companies have not yet implemented digital transformation in an integrated manner (Fernández-Portillo, Hernández-Mogollón, Sánchez-Escobedo, & Coca Pérez, 2017) Consequently, they often provide an incomplete range of services and face both strategic and operational barriers in the digital transformation process. Compared to established services providers, they are new, innovative competitors with new concepts, products and services and a modern multichannel approach in terms of distribution, communication and marketing, which reaches customers in

different ways (Fernández-Portillo, Hernández-Mogollón, Sánchez-Escobedo, & Coca Pérez, 2017). In consequence, multichannel business models have gained substantial market share. Recent research confirms the growing and forward-looking influence of these businesses on the financial sector. As traditional companies and their industries adapt poorly to contemporary market changes, there is a high risk of disruption caused by next technologies and business models. If such changes are missed system-relevant financial institutions, such as large banks or groups or smaller ones, then, financial services and the whole economic system will be endangered (Mohan, 2015). Many exiting financial services providers have already recognized the need to fundamentally change their business model and have begun to rethink, or rather reform, their approaches.

This aspect of market driven technological change, in particular, raises the overall question of how new management approaches and technology changes in the world of banking, as well as how they influence banking adjustment, which leads to the following research questions :

What are the main challenges and issues to a successful implementation of digitalization in the Moroccan banking sector?

What are the “best practices” for implementing the digitalization process?

To address these questions and contribute to the understanding of digital transformation in the Moroccan banking sector, this study is structured by starting with the section of a theoretical background research to establish foundation for the study, followed by a major section describes digital transformation in the Moroccan Banking sector. Within this section, there will be two sections: recent development and limitations of the Moroccan banking sector and challenges and issues for digitizing the Moroccan financial system.

The financial sector is one of the key sectors in digitalization strategies. Its digital transformation seems essential to ensure Morocco’s long-term competitiveness at both national and international levels. For this reason, this paper contributes to the issue of digital banking and identifies obstacles to digital transformation in the sector. In line with this research objective, the present study identifies and analyses how the adoption of digital technologies in the Moroccan banking sector will promote economic growth through access to financial services.

1. Theoretical background research

The Internet of Things; cloud computing, social media Superman, artificial intelligence, data analysis, and blockchain are among the most important types of transformational technologies. These Technologies positively change the business model operation processes. Therefore, digital transformation is not only improving the processes for organisations in different ways but also providing new and innovative ideas for achieving goals (Matt, Hess, & Benlian, 2015). In the banking industry, digital transformation goes beyond the transition from traditional banking to digital banking. The impact of technology on organisations and the economy leads to changes in products or organisational structure (Matt, Hess, & Benlian, 2015). This is a crucial change in how banks and other financial institutions communicate with customers and meet their needs to keep and develop their potential. Moreover, effective digital transformation is expressed by understanding the digital customer's behaviour, preferences, choices, and interests while the needs and aspirations are not considered.

The concept of digital transformation is often referred to as the “environmental perturbation caused by digital technology”, which leads to the irregularities of approaches that have been used as a basis for organising systems and fixing value.

According to (Gartner, 2020) digitalization represents improvements in existing business models, the creation of new revenues, and value-adding opportunities with the help of Technologies. Based on (Matt, Hess, & Benlian, 2015). Digital transformation is a complex issue that proceeds within a framework that includes changes in value creation, structural changes, and use of technologies and financial aspects.

In practice, technological Investments involve not only risks but also require an understanding of the relationship between technological and organisational culture and institutional change within Certain boundaries of regulatory standards known as Basel III, Banks aim to embark upon new technology standards, like regulatory technology (RegTech), Which may facilitate the digital transition (Krasonikolakis & Tsarbopoulos, 2020) . RegTech is an emerging technological trend that leverages information technology and digital Innovations that can greatly assist with a bank’s regulatory management process (von Solms, 2021).

Digitalisation plays a major role in contributing toward sustainable development goals. Without the transformation of existing businesses, both economic and environmental challenges of the future cannot be solved sustainably (Bican & Brem, 2023). In this case, there are possible ways of reaching sustainability during the digital transformation process. Technology is reported to disrupt the financial industry, solve friction points for customers and businesses, and make the

overall business more resilient and sustainable (Moro-Visconti, Cruz Rambaud, & López Pascual, 2020).

Financial technology is an industry composed of diversified firms that combine Financial Services with Innovation Technologies offered to financial services providers. It's a platform for the development of sustainable economic growth as well as it may provide a solution for sustainable finance disrupting and reshaping the financial industry by cutting costs, improving the quality of financial services, and creating a more diverse and stable Financial landscape. Fintechs Have the potential unsolved core activity of the banking sector, clearing and setting payments, performing maturity transformations, sharing risks, validating trust, and allocating capital (Shin & Choi, 2019).

In the following sub-sections, we summarise the recent developments and limitations of the Moroccan financial system before returning to a succinct presentation of the issues and challenges of digitalization in this sector in Morocco.

2. Digital transformation and the banking sector in Morocco

At the global level during the last decades, the digitalisation of financial operations has accelerated especially in developing countries; the transition to digital payments has proved to be a crucial tip in accessing the formal financial system. It enables households and small businesses to access different markets, technologies and services. Morocco has only partially followed the wave, despite the advanced development of its financial sector.

In the following subsections, we present the recent developments and constraints of the Moroccan banking system before returning to a succinct presentation of the issues and challenges of digitalisation in this sector in Morocco.

2.1. Recent developments and limitations of the Moroccan banking sector

The Moroccan banking sector has some of the largest banks in Africa. Some of them have become major actors on the continent and are expanding by year. In fact, according to the reports of the Banking Commission of the West African economic and monetary Union (WAEMU)¹, in 2018, Moroccan Bank will reach 27.8% of the market share in WAEMU and more than 30% of the share of the overall net income of the region.

¹ the Banking Commission of the West African economic and monetary Union (WAEMU) was founded through an agreement signed by the ministers of finance of the member states of the union in Ouagadougou, on April 24, 1990, in order to contribute to the provision of effective banking supervision and to the integration of banking activities within the west African Monetary Union.

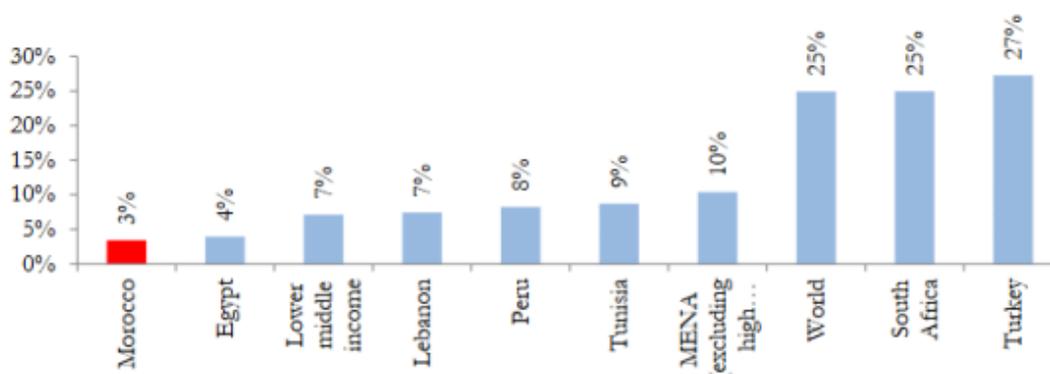
Moreover, as (Dehmej, 2020) explain, the Moroccan banking system has shown resilience to various financial crises in recent years, particularly because of the rigorous supervision of Bank Al Maghrib, the Moroccan Central Bank (BKAM).

According to (BKAM, 2019) the bank penetration rate will be over 78 percent in 2019. However, considering people who have more than one account and only the adult population, this rate would be between 34 and 54 percent depending on the calculation methods adopted. Since 2013, the number of bank accounts has increased by 26 percent and the number of bank cards has increased by 32 percent. Today, there are approximately 13.8 million bank accounts in Morocco. However, 10 million Moroccan adults do not have a bank account.

Data shows that under 80% of men had at least one bank account in 2017, while only 40% of women had one. In account ownership, a similar gap exists between urban areas with 80% and 20% for rural areas. This data refers to the exclusion of several population segments that could be potential clients of Moroccan.

Moreover, according to the same data a large portion of the personal accounts opened is used only to receive salary payments or pension and to make withdrawals. Regardless of the level of the banking system, the payment ratio remains low compared to other banking sectors. In Turkey, for example, there are 46 payments transactions per capita per year, in Morocco, 5.5 transactions annually. When it comes to bank account holders, 3% used a cell phone or Internet to access their account, compared with 10 % in the MENA region.

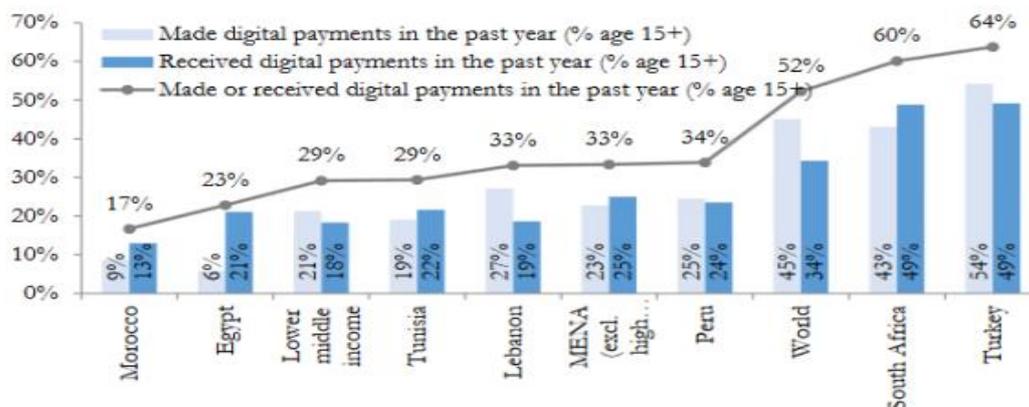
Figure N°1 :



Source : World Bank Group's Findex survey - World Bank (2018)

Based on other indicators, only 17 % of Moroccans have made or received a digital payment in a year. This corresponds to 58 % of account holders, compared to 80 % in Tunisia, 70 % in Egypt; and 93 % in Turkey. Besides, only 43 % of bank account holders in Morocco, with 12 % of the adult population, reported using their accounts to make or receive digital payments. The data also shows that 96 % of utility bill payments are made in cash, compared to 98 % in Egypt and 87 % in Tunisia, while in Turkey and South Africa, cash payments are much less frequent: 50 % and 64 %, respectively. Online payments and purchases have not taken off in Morocco (2 %), compared to Lebanon (16 %), and the MENA region (16 %).

Figure N°2 :



Source : World Bank Group's Findex survey - World Bank (2018)

The low penetration of financial services among households in Morocco can be explained by the low-level household income in general. It could also be partially due to the inadequacy of the bank's offers to meet the needs of these excluded potential customers and to the high proportion of informal financial services. Similarly, the low rate of adults, who already have a banking account but not yet using digital banking Solutions, can be explained by the low involvement of the financial institutions since they have not yet been encouraged sufficiently in the use of financial services by their current and potential customers, at least before the advent of the covid-19 pandemic.

It is important to make effective means to integrate this part of the Moroccan population into the system to increase and facilitate the transactions between the different actors of the Moroccan economy. Normally the digitalisation of financial services could significantly enhance access to these services in the Moroccan banking system, as has been observed in other countries of the African continent.

The World Bank Group, through its “Universal Access to Financial Services Initiative”, is committed to ensuring that one billion people have access to operational accounts. Morocco has been selected as one of the 25 countries targeted by those initiatives.

Regarding corporate finance, and in terms of access to financing and the world bank’s “Doing Business” criteria for loans or credits availability, Morocco ranks rather poorly compared to other countries at a comparable level of development. It ranks around 100 out of 180 countries (World Bank, Doing Business: Measuring Business Regulations, 2021).

Consequently, many very small, small and even medium-sized Enterprises still have difficulties accessing credit from Moroccan banks. The sources of financing during the start-up phase are still family members, friends, or colleagues (45%), followed by banks and financial institutions (17%), and government programs and grants (8%) (World Bank, 2019)

Financial exclusion continues to be absorbed particularly at the level of micro, very small, small enterprises, those with low turnover, and those who do not trust the banking system. Regardless of the efforts made, access to finance remains an obstacle for small units. Bank loans are submitted to collateral requirements that are considered very restrictive for the smallest businesses. In addition, the ratio of private credit to GDP is around 73% while the ratio of household credit to GDP is around 31%.

By analysing the regional and continental position of the Moroccan banking sector, Morocco, which is located 14 Km from Europe, has the European Union as its main economic and commercial partner, and returned to the African union in 2017, intends to play a determinant role at the regional and continental levels. Thus, in recent years, the country has shown its ambition to become an economic and financial hub between Europe, the Gulf countries, and the African continent. Several of its banks and insurance companies have established themselves in various West African countries. For the banking sector, we can mention Attijariwafa bank, BMCE - Bank of Africa, and Banque Populaire

Moreover, in 2010, Morocco developed the financial platform *Casablanca Finance City Authority (CFCA)*, which has rapidly become a major financial centre in Africa with over 30 partners worldwide (CFC, 2021). The platform’s objective has been to attract a greater share of the foreign direct investment of the continent, considering that Morocco is already one of the most important investors in West Africa, with more than 85% of Morocco’s foreign direct investment going to Africa. Currently, this platform has been able to attract and host more than 100 national and multinational companies operating in the financial sector.

To achieve a leadership role and to increase its shares in Sub-Saharan Africa, and eventually, in the MENA region, banks have to continue implementing technological and digital transformation. This requires the development of digital financial platforms. However, for several reasons, the Moroccan financial system, although it has made significant progress and attained relative success, still has difficulties in financing economic activities at the level required by the various economic actors. A series of national and international reports on the sector highlights the need for the system to become more inclusive, diversified in terms of products, and services it offers.

2.2. Challenges and issues of digitising the Moroccan financial system

Recently, the issues and challenges of digital transformation are increasingly obvious for all the actors in the Moroccan financial sector and seem to be an indisputable necessity. Many obstacles are currently underway among experts, specialists, and professionals at different levels. As a result, digital finance will become, in the short term, an important advantage for the sector's development.

In terms of reforms to be implemented in this regard, several axes have been selected to consolidate and accelerate digital transformation. This requires improving the digital functioning of capital markets and developing the financial system infrastructure. Thus, the qualification of the workforce in the digital fields related to the sector, in terms of platforms management and technological techniques, is crucial to the success of such reforms.

In this regard, many specialists in the digital fields recommend that an oriented training program will facilitate the implementation of the digitalization strategy. Furthermore, the professionals cite the role that blockchain, cloud, and Artificial Intelligence will play in the future and the need to prepare the national and sectoral structures to be adapted for this variety of reforms.

According to the actors of the sector, a profound revolution is prepared in this direction with all its implications on the economy. This strategic direction is in line with the Moroccan Digital 2020 Strategy implemented in 2016 (Law 61-16)². It is important to recall that this strategy intends to organize and support the process of digital transformation of the Moroccan Economy. Moreover, despite the problems facing Morocco's financial sector in terms of financial inclusion, the government, in direct collaboration with BKAM, is trying to make up for the lost time by implementing a National Strategy for Financial Inclusion (NSFI) (World Bank, Morocco: Financial Inclusion and Digital Economy Development Policy Financing, 2023). The

² Dahir n°1-17-27 du 8 hja 1438 (30 Août 2017) portant promulgation de la loi n° 61-16 portant création de l'agence de développement du digital.

strategy seeks to identify and accelerate the development of alternative models to respond to the specificity of certain target populations. These include women, young people under the age of 25, and rural areas population; This strategy identified the priorities and mechanisms that would allow these target populations to have easier access to financial services (credits, savings, and insurance....etc).

The main challenge of this strategy has been the need to make intensive use of the New Information Technologies to conduct the various financial transactions. Therefore, the government has asked for the contribution of BKAM, the ANRT, the Professional Association of Banks of Morocco (GPBM), and the professional Association of Insurance Companies (APEP) to implement this strategy. Initially, the implementation of mobile payment was on the agenda. It was seen as a “source of growth” to accelerate financial inclusion. The country’s major banks immediately began to implement appropriate applications to offer new services or lines of services to its targeted population.

In the same perspective, through the banking Act of 2014 (law 103-12)³, BAM has recognized payment institutions as a category of credit institutions and similar bodies. Then, these payment institutions were expected to play a central role in the launch of mobile payment in the country to complement or replace traditional banking approaches. However, despite these efforts and achievements, mobile payments have not been developed as planned, mainly due to trust issues among potential users and the challenges raised by data protection.

In 2020, following the COVID 19 pandemic, mobile payment activity has recorded a significant increase, according to BKAM statistics. For example, 15 Million mobile wallets were operational in September 2020. Similarly, payment and money transfer services showed a very high demand, as did loan and personal finance management fintech.

To assist Morocco’s financial and digital inclusion reforms, the World Bank approved USD 500 million in June 2020 as part of the Development Policy Financing (DPF), which will support the key policy reforms and promote an enabling environment for digital transformation. The World Bank Maghreb Director has justified this decision by the fact that the Covid 19 Pandemic demonstrated the paramount importance of digitalization as a means to ensure business continuity and promote innovation. During this crisis, Morocco’s digital transition accelerated rapidly, improving the country’s capacity for a greater scale-up. Today more than ever, digitalization offers new opportunities for Morocco, ranging from more fluid economic

³ LOI N° 103-12 RELATIVE AUX ETABLISSEMENTS DE CREDIT ET ORGANISMES ASSIMILES, TELLE QUE MODIFIEE ET COMPLETEE.

transactions to better services for citizens and businesses. “Through the current support, the World Bank aims to boost this potential and leverage digital transformation for more inclusive growth. This finding aims to put in place a mechanism that improves financial inclusion (promotion of microfinance programs) by allowing firms and households to have access to more competitive digital infrastructure and services. It should also stimulate the private sector by facilitating access for start-ups and young entrepreneurs”⁴.

In December 2020, an important memorandum of understanding was signed by the Ministry of Education (Ministère de l'Éducation nationale, de la Formation professionnelle, de l'Enseignement supérieur et de la Recherche scientifique), the Ministry of Industry (Ministère de l'Industrie, du Commerce, de l'Économie verte et numérique), BAM, and the Economic Interest Grouping of Mobile Payment in Morocco (Groupement d'intérêt économique du paiement mobile au Maroc). This agreement intends to dematerialize government aid payments to households. It concerns the various conditional cash transfers that would be paid to poor and vulnerable households under the “Tayssir” schooling support program. In its implementation modalities, this protocol should boost the use of mobile payment. In this sense, the protocol specifies that households would receive these transfers in their accounts opened with payment or banking institutions. They could then use their funds to purchase goods and services via mobile payments at all businesses or withdraw them from the counters of these banks. The first phase of this operation would take place in four pilot provinces before its implementation throughout the country.

To increase the financial integration of very small, small, and medium-sized enterprises, banks have also set up mechanisms to support the financing of start-ups by drawing on the capital markets and using digital applications. According to professionals, recent trends show a growing interest and an increase in investments in start-ups related to Blockchain and artificial intelligence that allow new types of financial operations.

Microfinance associations, which were previously relatively discrete actors in the financial market, have also been called upon to deploy components of this strategy. These associations are in closer contact with the target populations. It was stressed by officials that the sub-sectors' legislative and regulatory framework will be modified and adjusted to transform some of these associations into official credit establishments.

⁴ Declaration of Jesko Hentschel, World Bank Director of Operations for the Maghreb (Agence Marocaine de Presse, 2020)

For all these new mechanisms, the essential prerequisites, including financial literacy, should be ensured to guarantee maximum accessibility, but also, and more importantly, to control the risks related to the different technological choices. All operators must be involved, each in their specific field, to increase the trust and awareness of potential users. Some of the latter are afraid of the security of their private data.

To conclude this section, it appears that all stakeholders understand that the digitalization of the financial sector will improve and facilitate access to various financial services, particularly in rural and remote areas where there is no traditional banking infrastructure. It is particularly in these areas that live the poorest and most excluded populations that require efforts in terms of financial inclusion. If part of these populations can gain access to these services, poverty could be significantly reduced by access to savings, credit, and job creation. Households and small firms would invest more and better in more productive assets, which could help trigger economic and social transformation, as has happened in other Asian and African countries.

At the same time, digitalization can improve the efficiency of financial institutions through the virtual generalisation of online operations (salary payments, transfers, withdrawals, bill payments...etc.). It can also facilitate the emergence of new services and actors through a faster diffusion of new technologies. This dynamic would allow firms to access new markets that were not previously accessible in a win-win configuration through e-commerce and digital payment.

Conclusion

Deploying digital technology in all fields of business, in particular, changing the processing method and transferring the value to customers, is called digital transformation. It involves cultural changes that, continually, question the current organisation's models. Financial institutions have different Strategies and priorities in alignment with financial end digital adjectives Ma in order what does embrace the digital manners.

Digital transformation is evident in forms of digital evolution and digital disruption in the banks. Digital evolution means re-evaluating the value chain through providing digital Services, offering new communication channels with customers and partners in the bank's digital ecosystem.

As we have seen, the digitalisation of the Moroccan financial sector seems to be essential to ensure internal and external competitiveness. Digital Technologies in this sector will promote economic growth. In recent years, there has been competition among the various national banking and financial institutions to introduce the invasion of new digital products and for the adoption of new Financial Technologies (Fintech). The objective is normally the provision of efficient banking products and services to the population (households and companies).

The low penetration of financial services among households in Morocco can be explained by low-income levels. It can also be partly due to the mismatch of banks' products and the needs of part of their potential clients and the high use of informal financial services. The most effective way for the bank to reach this part of the Moroccan population and increase the number of financial transactions needs to be found as soon as possible. Thus, the digitalization of financial services could significantly increase access to financial services in Morocco, as has been observed in other African countries.

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