COVID-19 and Islamic Banking Services: Digitalization as a Post-Crisis Solution (Case of Morocco)

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Abstract—**Movement restrictions and the resulting social distancing, as measures to flatten the curve of the spread of coronavirus disease 2019 (COVID-19), highlighted 'electronic business models' (e-BM) as well as the importance of digital transformation of banking services. This article aims to empirically explore the new business opportunities offered by the digitalization of Islamic banking services as a solution to revitalize post-COVID-19 activity and overcome the difficulties of the period. The article presents the results of an opinion survey conducted among Moroccan citizens to collect and analyze their perceptions and expectations about the digital transformation of participatory banking services. This is the first exploratory study in Morocco focused on customer's expectations regarding the digitalization of participatory banking services. The results of the survey highlighted a significant interest from customers and prospects for digital transformation of the services offered by the actors of this new banking industry, in particular through mobile banking application. However, there is still a part that prefers traditional on-site banking services .Furthermore, digital transformation also presents some risks such as cyber security and issues of non-compliance with banking regulations relating to opening a bank account remotely. To manage these risks and reshape their BM, it is recommended that participatory banking institutions set up an integrated digital strategy, improve their internal processes and equip themselves with a robust, interactive and locked information system.**

Keywords: COVID-19, electronic Business Model, digital transformation, participatory banking services, expectations of Moroccan citizens, opinion survey.

I. Introduction

Coronavirus disease 2019 (COVID-19) is a global health crisis that threatens both human health and the economy of countries.Around the world, this pandemic is costing many lives, affecting livelihoods and threatening recent progress towards the development goals the world has set for itself. On the other hand, according to the International Monetary Fund (IMF), this crisis is unlike any other. According to its forecasts, the world economy is likely to experience its worst recession since the Great Depression of the 1930s,witha recession of 3%that is more severe than the one observed during the global financial crisis a decade ago[1]. While the global financial crisis of 2007/2008 originated in the financial ecosystem of developed economies, this terrible economic and financial shock inflicted by COVID-19 pandemic impacted all sectors of the global economy with violent and consequent repercussions on the real sector.

In the wake of this storm and the strong doubts surrounding its extent and its implications for the international economy, all economic actors, especially banks, find themselves forced to take up an enormous challenge to maintain the continuity of their activities and to minimize the economic and financial impact of the crisis on their results. According to the Islamic Financial Sharia Board (IFSB), Islamic banks are not immune from the obvious and expected consequences of this pandemic given their exposure to the real economy, which could have implications for their resilience and performance levels[2]. Thus, banking institutions must provide concrete responses to the difficulties they are currently experiencing to capture market share from a banking industry that has been doubly devastated by a sudden halt in economic activity against a backdrop of recession. In the light of the pandemic, they will have to make changes on a proportionate scale.

With a global Islamic banking market estimated at 2.5 billion dollars at the end of 2019, this segment of Islamic finance remains embryonic in Morocco [3]. Officially referred to as "Moroccan participatory banking institutions", the effective start of their activities took place during the second half of 2017. Currently, the Moroccan banking landscape has eight participatory banking institutions, including five banks and three windows. At the end of 2019, these establishments recorded total assets of 7.3 billion dirham against 2.6 billion dirham a year earlier. However, the total net result remains negative at -420 million dirham, mainly due to the high launching costs which consume a huge amount of their resources [3].

Moreover, in these exceptional circumstances relating to Covid-19, digital technology is taking an important place in the daily lives of the world citizens, especially with the increasing number of calls by various public and private institutions to give priority to remote services, to achieve the containment measure, considered in the absence of a vaccine, as the only way to control the spread of the pandemic. According to the World Health Organization (WHO), COVID-19 is the first pandemic in human history in which technology and social networks are being used on a massive scale to keep people safe, productive and connected without being physically in contact [4].

The aim of this article is to explore and analyze the opportunities offered by the digital transformation of participatory banking services in Morocco. It is a part of the approach to propose a solution that can help the actors of this new banking industry to boost their business and overcome the consequences caused by COVID-19.

To achieve this objective, the methodology adopted is double: literature review and opinion survey. First, in the form of a literature review, we will analyze, in the first part, the evolution of Business Model (BM) to Electronic Business Model (e-BM),as well as the temporal circumstances related to this change. Then, we will highlight the evolution of digital banking to analyze the achievements, define the areas of risk and project ourselves into the future challenges related to the switch to a digital bank.

Then, the second part will be devoted to providing the empirical study and the presentation of the results of the opinion survey that we conducted among Moroccan citizens. The objective is to explore their perceptions regarding the eventual switch to digital participatory banking institutions. The article ends with a discussion of the contributions, challenges and limitations of the study.

II. Literature Review: From Business Model to Electronic Business Model

A. *The Evolution of The Business Model Concept*

Desmarteau and Saives (2008) locate the first use of the term "Business Model" in a text by Bellman in 1957 where it corresponded to a mathematical modeling of revenue sources in the context of a business game[5].

Moreover, the earliest and most conclusive attempt to define the concept of BM dates to 1996 and is attributed to Viscio and Pasternack[6]. In their definition, the BM is made up of elements internal and external to the company with their expected objective in terms of performance. It is thus composed of five elements forming a value system whose overall value exceeds the sum of the parts: the core, business units, service delivery, governance and linkages.

Several authors have subsequently expanded this conceptual vision of the BM. According to [7], it is a structure grouping together resources, products, services, potential benefits on the one hand, and the different actors and the detailed description of their roles in the model on the other. For [8], the BM reflects a good and tacit understanding of how all components of the firm must act to produce and make profit

Loilier and Tellier (2011), for their part, consider that BM can be assimilated to the way in which the firm creates value[9].Verstraete, Krémer, et Jouison-Laffitte (2012) conclude that the BM is an agreement, a form of collective representation or a common frame of reference of what business is[9]. Thus, to accurately reflect this agreement, every BM should have at least three generic components: Generating market-valued value (which is what marketers call supply), Paying for that value, and Sharing success with the value network, or stakeholders in the business. For these authors, the GRP model (Generation, Remuneration and Sharing) facilitates the determination of the components of a BM and allows the different stakeholders to imagine the business, to analyze it and to project themselves into it[6].

Overall, the BM concept is dynamic, evolutionary and interactive with the environment in which the firm operates. It is constantly revised and challenged by market conditions, changing technologies, and the efficiency of the objectives achieved.

B. *The Transition from Business Model to Electronic Business Model*

With the advent of start-ups in the new information and communication technologies (NICT), the expression BM has become a buzzword [6]. While the literature on BMs only began to grow in the mid-1990s, a peak was reached in 2004 with 114 articles, listed in the EBSCO database, where the word BM appears in the abstract [6]. This growing interest of researchers in this subject is concomitantly linked to the bursting of the bubble on technological values in 2000.

Since then, the literature related to this topic has evolved towards the increasing use of expressions such as "New business model", "Internet business model", or "Electronic business model" (e-BM). By analogy, the term "Electronic Business Model" has emerged in the literature to describe e-business. A concept derived from that of BM, it is also difficult to define and can be understood in different ways [8]. Many authors (table 1) have tried to define it using a heuristic approach based on dimensions they have observed on the market:

TABLE I. EXAMPLES OF E-BM CLASSIFICATION DIMENSIONS

Authors	Dimensions
Timmers (1998)	-Level of functional integration (from a single function to multiple functions); -Degree of technological innovation and its impact on the value chain.
Applegate (2001)	-Market Structure; -Target market (Business to Business or Business to Customer).
Mahadevan (2000)	-The sources of differentiation (online sales, products offered and level of personalization, etc.); -Sources of income; -The costs incurred.
Novak and Hoffman (2001)	-Income models; -Value models to customers.

Source : Arlotto, Sahut, and Teulon, 2011

These dimensions were followed by another step in the literature of describing the elements of BM rather than listing its components or identifying different models of value. In particular, for Weill and Woerner (2013), e-business dimensions consist of content, experience and platform [10] :

- Content (what is consumed?): Product information, price and use details, etc.; Digital products, such as e-books, e-saver accounts, movies, software.
- Experience (how is it packaged?): Experience can include customer-facing digitized business processes, community and customer input, expertise for informed decision making, recommendations, tools and interface.
- Platform (how is it delivered?): Other business processes, customer data, technology; proprietary hardware, public networks, partners.

Customer experience is therefore a fundamental part of BM'sevolution [11]. The platform generally deployed as a digital artifact makes it possible to study user behavior. In this context, it is necessary to rethink the business model of the organization to adapt to new digital uses of customers and employees[12]. Companies are therefore invited to rethink their processes and how they interact with their stakeholders.

Moreover, the digitalization speeds up decision-making as well than information overload. The client "experience block" is subdivided into three sub-blocks. The first block is understanding the customer thanks to an authorized proximity through social media and feedback from the big data [13]. These data allow to better know the customer, his environment, its location, the segment to which it belongs and its satisfaction level regarding the company services or products. Then, comes the potential block of growth. It is developed through digital tools such as tablets that allow signatures of official acts and then store the document in the corporate cloud. The customer accesses easily and at will to this digital document in its private and secure space. The tools CRM [1] type facilitate the centralization of information customers and serve as a privileged internal and external communication channel while ensuring the traceability of requests [14]. Finally, the third block announced by Davenport et al. (2012) concerns interoperability with social networks. They initiate a connection of internal company data and external customer data [15].

Moreover, the commercial development of the Internet has accelerated the creation of new BMs and redefined existing ones[16]. This is because the Internet affects all activities in the value chain, both core and non-core, and has spawned new ways of doing business known as "electronic business"[17].The Internet can reduce the time it takes to transmit orders by automating both customer and supplier relations, thus enabling true integrated management [7]. Since the 2000s, the global economic landscape is undergoing an upheaval linked to the perpetual evolution of digital technology [18]. As a result, the global economy has been totally transformed with the disappearance of many industries and the emergence of new digital-oriented businesses such as e-commerce [19].

C. *Evolution of Digital Banking*

The digital transformation of any institution, including financial ones, is driven by new trends in the digital world. All these changes are likely to upset the old model of banks as we know it, to give birth to a new style of connected digital banks [20].

In addition to the large-scale expansion of the Internet and technological advances, we are also witnessing the democratization of computers and Smartphone, which are increasingly powerful, compact and feature-rich [21]. The digital boom is having a significant impact on many industries and is accompanied by a change in consumer behavior. The latest statistics published by the International Telecommunication Union (ITU) confirm that Internet use continues to grow worldwide, with 4.1 billion Internet users at the end of 2019, or 53.6% of the world's population[22]. Similarly, almost the entire world population (97%) lives within range of a mobile cellular signal[22]. As a result, users with access to the Internet are using more mobility in their daily lives, particularly to carry out traditional banking transactions or to adopt the digital services of digital banks, Fintech and neo-banks.

Furthermore, Lavayssière (2015) considers that, in the banking environment, the traditional BM which initially evolved in relatively stable environments have been forced to be reinvented [23]. In fact, the disruption in traditional banking first occurred in the payment sector with the appearance of Fintechs 2. They were the first stunt against the traditional banking industry by imposing change on all its businesses. They invest every segment of the banking and financial services markets and modify its structure through the entrance of technological start-ups [24].With flexible structures and low costs, the Fintechs are, therefore, developing at high speed and

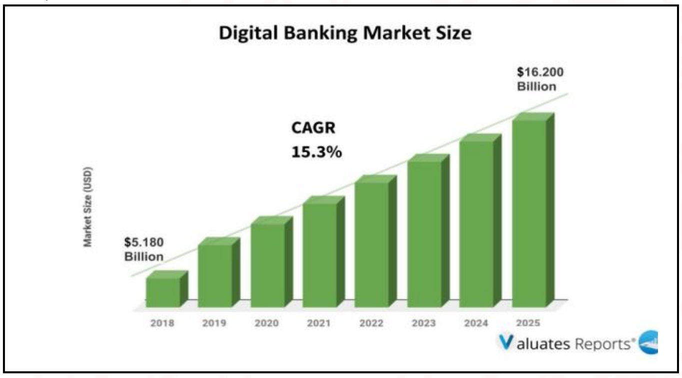
[1]Customer Relationship Management.

[2]Startups applying new technologies from the digital revolution to the banking sector.

are concentrating on niche markets where banks do not offer services or perform poorly. Digicash, Paypal and Kickstarter are examples of successful Fintechs with online banking[25]. In China, for example, the market share of the giants of retail payments technology exceeded 50% in 2017 compared to only 2% in 2012.

On the other hand, with the mobile as an ally, the neo-banks3 disrupted the system with innovative, fast and secure digital solutions [26]. In 2018, according to [27], the size of the global digital banking market reached USD 5,180 million and is expected to reach USD 16,200 million by the end of 2025, as shown in Fig. 1.

Figure 1. Global Digital Banking Market Size, Status and Forecast (2018-2025)



Source: Digital banking market research report 2019

The digital revolution in banking is underway, disrupting the relevance of traditional banking services. It is creating better, faster and cheaper banking services that make life easier for customer[21]. According to Deloitte Digital Banking Benchmark, approximately 3 billion users worldwide will have access to retail banking via Smartphone, tablets, PCs and smart watches by 2021[28]. Having initially ignored the impact of digitalization on their business, banks are increasingly being forced to embrace the demands of digitalization and accelerate their digital transformation process to retain and grow their customer base.

Digital Banking involves the digitalization of traditional banking services such as current accounts, credit cards, lending, wealth management, etc. by using online channels to supply them to customers [29]. While the traditional brick-and-mortar, in-branch banking still exists today, the move to digital has been momentous. Both old-school traditional banks and modern, tech-driven new entrants have been transforming basic banking products and services so that they fit within the new digital age, making them more accessible, easier to understand and quicker to manage. Now, the smooth functioning of digital banking services is no longer a choice but a necessity for survival.

[3] 100% digital banking institution

III. Islamic Banks and Digitalization Challenges

Due to the emergence of Fintechs and the new consumer lifestyle, traditional banks (Islamic and conventional) should opt for digital transformation to remain competitive.

A. Islamic Banks Intermediation Model

The intermediation model of Islamic banks is presented as a financial innovation that integrates ethics and social dimension into contemporary banking practices[30]. Islamic financing mechanisms have different forms from the conventional financial institutions and must be Sharia compliant. There are two alternative mechanisms of financing namely equity financing (mainly Mudaraba and Musharaka) and debt financing (mainly Murabaha, Ijara and Istisnaa)[31].

Furthermore, the customer relationship is of great importance in the BM of Islamic banks. Reference [32]summarized the relationship between Islamic banks and their depositors in three main categories:

- a debt relationship in which the bank guarantees the principal amount of the deposits;
- an agent-principal relationship in which the bank shares profits and losses with its depositors, who in this case are partners and not creditors;
- and when the bank provides administrative services and information, the relationship is called an administrative services relationship.

The difference between Islamic banks and conventional banks can lead to differences in financial intermediation. In fact, it does not boil down to simple loan-borrower relationships, but it develops a dual agency relationship between the bank and the depositor on the one hand and the bank and the entrepreneur on the other hand[29].However, the intermediation of Islamic banks, although special, faces many challenges. The organizational structure of most Islamic banks is not conducive to participatory intermediation, which is more affected by their small size [33]. Property rights systems are poorly defined and insufficiently protected in Muslim countries, making it impossible to share profits and losses themselves [34].

So far, Islamic commercial banks have limited themselves to a virtual replication of the conventional bankingBM and based on a banking intermediation structured around the use of customer deposits [18]. However, at a time when technology is changing the way customers interact with their banks, Islamic banks now face competition not only from conventional banks but also from the emergence of non-conventional BMs based on Fintech. With the advent of new technologies and the democratization of the Internet, we see a growing gap in banking distribution. As consumer behavior has also evolved, customers are more sophisticated, more demanding and less loyal as they become very solicited and courted. Customers want more speed in processing their requests and they are also increasingly informed.

Thus, rethinking their BM through the implementation of new tools, processes and strategies focused on digital is fundamental for the development of the customer portfolio of Islamic banks. While this will help Islamic banking to respond to the changing economic structure and customer expectations, it will also have a positive impact on financial inclusion and improve value-based intermediation.

Islamic banks are now called upon to offer innovative products and services in a way that takes advantage of technological progress and promotes financial inclusion without compromising the fundamental Sharia premise on which Islamic banking is built or violating its essential elements of fair value-based intermediation.

B. Digitalization Challenges

The banking world has begun the shift to digitalization to get to know the customers better, to support them in a new paradigm and anticipates their needs. It is the BM itself that is changing, moving from what is usually presented as a vertical organization (around products) to a horizontal organization (around customers).

The digitalization of a bank does not stop with the creation of a website for remote banking (e-Banking) or the development of a mobile application (M-Banking) that can be downloaded to its customers' Smartphone. It is the entire organization that needs to be reviewed so that data can play its full role, that there is hyper automation of operations, management through analytics and optimal service to the customer.

The consultancy firm Trusted Advisors, which has been closely following the digital evolution of the banking sector in Africa and the Middle East for several years, conducted an in-depth study in 2019 of certain banks in this geographical area that have begun the process of digital transformation. For a bank to succeed in its digital transformation on a solid and sustainable basis and take full advantage of the benefits of digitalization, the study identified several levers for success that we summarize in the following points [35]:

- Digital strategic vision transcribed into an in-depth transformation plan and implementation trajectory;
- Dematerialization of internal processes: towards an acceleration and optimization of internal exchange flows (with an IT/business/network synergy to be created and maintained) and flows between the bank and its customers or partners;
- Reinforcement of customer relationship management: towards an improved time to market for the greatest satisfaction, thanks to the integration of new analytical tools;
- Building a competitive advantage: Leveraging an institution providing financial services (mass retail, Fintech, etc.), creating an attractive appealing product (such as a savings account with a high interest rate) or an innovative service are the main ways to build a competitive advantage;
- A sustainable federation of an internal innovation ecosystem based on the digital acculturation of employees and enabling the continuous development of new digital banking services and products.

Nevertheless, the digital transformation presents risks for the bank, such as cyber-attacks, malware, hacking and spoofing attacks. According to the General Council of Islamic Banks and Financial Institutions (CIBAFI), technological risks are the biggest risks faced by Islamic banks in 2019 with a score of 3.56 for cyber-attacks, a worsening compared to that recorded in 2018 (3.41)[36]. This upward trend in technology risk scores is plausible given the growth of e-banking and related threats. It is therefore crucial that as banks strive to expand their customer base and offer new financial products and services, they put in place the tools to control cyber security risk and enhance the security of customers' personal data.

Addressing customer needs in an increasingly digital world means disrupting existing business models for a fresh customer experience. Therefore, any investment in this area has to be made wisely.

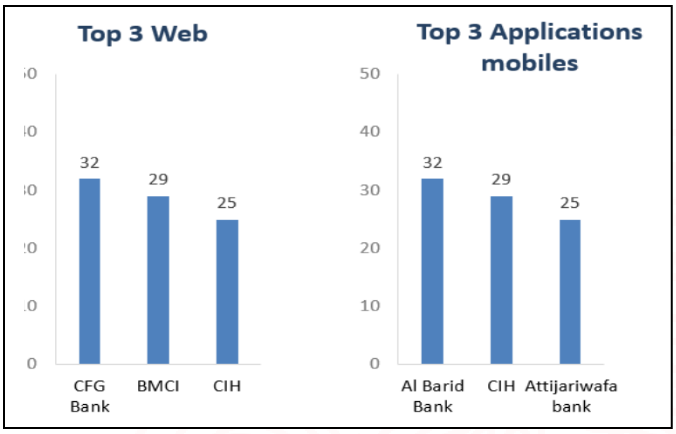
IV. Empiracal Study :digitalization Perspectives of Moroccan Participatory Banking Institutions

A. Inventory of the developpement of digitalization of banking services in Morocco

In recent years, especially after Morocco’s Ministry of Industry, Investment, Trade, and Digital Economy created the Agency for Digital Development (ADD) in 2017, the digitalization sector has boomed. Governmental institutions and several major companies launched a digital transformation process to meet their customers’ needs.

Moroccan financial institutions were the first to become aware of digital transformation’s role in cutting costs, improving customer experience, and competing with global companies. In fact, information technologies and digital innovations have enabled players in the banking sector to conquer new market shares. However, Moroccan banks have not yet succeeded in establishing and maintaining a regular relationship with their customers through digital channels. D-rating has evaluated the features of 10 major Moroccan retail banks websites and mobile applications[37]. Two main elements of the digital client relationships are the web and mobile applications. The web category covers 81 indicators, including functionalities and features available on the public websites, the web traffic and other technical parameters over website performance. While the mobile application category includes 26 scores, related to the client satisfaction on mobile application stores, usage and engagement metrics and technical properties. According to the results of the study , the top 3 scores on these two categories are displayed in the charts (fig.2).

Figure 2. Scores of digital performance of Moroccan banks : client experiene on digital channels



Source: Numerization of Moroccan banks, May 2018 (D-rating).

CIH bank appears on the top 3 web and mobile application and positions itself as the Moroccan bank with the highest level of use of digital channels in its relationship with prospects and clients. The effort made on its digital transformation clearly reflects on its fully-digitalized acquisition process and its multidisciplinary program in open innovation « CIH Open Innovation ».

Regarding the mobile application, there is a strong performance contrast between the different banks regarding the mobile application channel. Some banks' mobile application like Al Barik Bank and Attijariwafa Bank have managed to satisfy their clients and obtained a good score. While other banks from the panel still struggle with very low satisfaction levels.

On the other hand, the same gap sits still for social media channels. Some banks have not even reached this opportunity yet (such as Crédit Agricole du Maroc), even though they are a very valuable source of information to obtain customers feedback, whereas other banks are extremely active. CFG Bank and CIH generate interactions and engagement on Facebook, at the same level as the best European banks present in the area. The results show that these outperforming banks have succeeded to take advantage of the full potential of social networks and more particularly of Facebook (which has a penetration rate of 63% in Morocco and an average 71% in Europe) and turn this popular media into to a real client acquisition machine [37].

Though, the current environment is undoubtedly challenging for banks. The behavioral and economic effect of the coronavirus crisis is profound, and come on top of lingering financial, operational and consumer pressures. But, with the right strategy, banks have a unique opportunity to succeed in the long term. Pursuing advanced technology and digital ecosystems will be key to that success. With these elements in place, banks will cut costs and drive efficiencies, helping them weather the coming storm and redefine their value to customers in a shifting market.

B. *Research methodology and hypotheses*

This study aims to focus, for the first time in Morocco, on the potential of the digital transformation of participatory banking services. Therefore, to collect the perceptions of Moroccan customers regarding the switch to a digital participatory banking services, we conducted an opinion survey.

To carry out the research and provide the most solid answers possible, we have chosen to put forward hypotheses that are broad enough to mark out the subject of the study in an exhaustive manner, but which remain very precise, and above all, all oriented towards post-COVID-19 banking digitalization. The research hypotheses retained are as follow:

1) Digital banking is of much more interest to the young people;

2) Digital banking is indispensable in times of crisis as well as in normal times;

3) The digitalization of participatory banking services is a great opportunity and a competitive advantage over conventional banks;

4) Digitalization will enable participatory banks/windows to improve their customer relationships and increase their post-COVID-19 market share;

5) Digitalization of participatorybanking services should be integral.

Along with that of the previous similar studies in this area (e.g. [38] and [39]), the survey is made up of two parts: general questions and specific questions relating to the digitalization of participatory banking services in Morocco. The data was collected via an adapted questionnaire using social networks (Facebook and WhatsApp groups) and emails. The choice of these two channels was dictated by the confinement circumstances imposed by the Moroccan government as part of the health emergency linked to COVID-19.

C. *Survey Results*

The target sample size was 500 respondents. The details about the respondents are presented as follow (table 2):

TABLE II. SURVEY RESPONDENNTS CRITERIA

Criteria	**Dominants**	**Percentage**
Gender	- Women	52%
Age range	-Between 18 and 30 years old -More than 40 years	59% 23%
Socio-professional category	-Students -Employees and civil servants	47% 40%
Banking	-Clients of conventional banks -Clients of participatory banks or windows	80% 20%

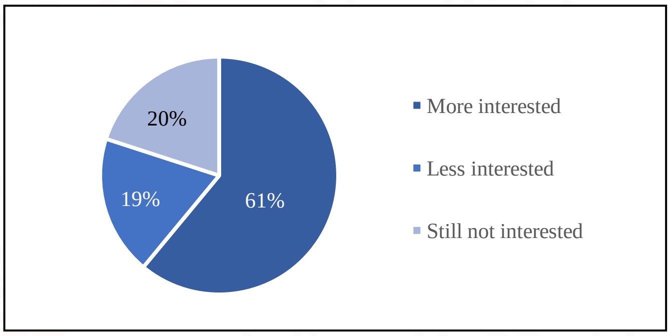
Source: Constructed by the Authors based on Survey Results

More than half (59%) of survey respondents are young, with an average age of 24 years. Likewise, survey results show that 81% of respondents prefer remote banking through website (29%) and mobile banking application (52%).

Furthermore, during the confinement and curfew period, 75% of the respondents to the survey used remote banking services. A large proportion (86%) confirmed that digital banking services are useful in times of crisis as well as in normal times.

In addition, more than 80% of respondents are not clients of a participatory bank or window, however 61% (fig. 3) of them believe that digital technology will improve their relationship with this new industry. They also believe that the digitalization of most of the services offered by the participatory banks and windows will constitute a competitive advantage over traditional banks.

Figure 3. Digital transformation and Moroccans interest in paraticipative banking institutions

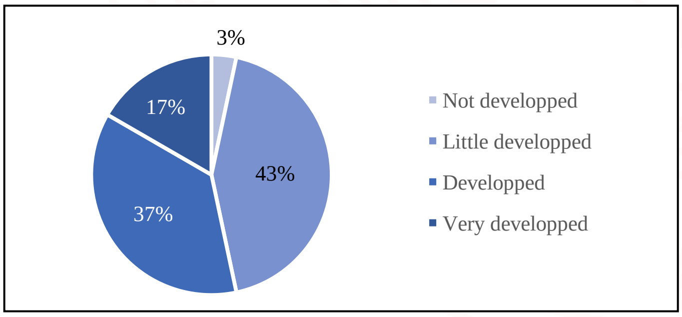


Source: Constructed by the Authors based on Survey Results

It should be noted that the doubt on the conformity with Sharia of the services and products offered by the participatory banks and windows, is the second main reason for the small number of customers of these institutions. The first reason is the problem of proximity of branches to customers. Moreover, even among the clients of these institutions, 30% of them confirm that the branches where they have opened a bank account are far from their home and work.

As for the current remote banking services offered by some participatory banks and windows, 43% of respondents (fig.4),having a bank account both in a participatory and conventional bank, confirm that remote banking services (e-Banking and M-Banking) of these institutions are poorly developed compared to those offered by conventional banks.

Figure 4. Developpement Degree of Remote Bankig services of



Participatory Banks and Windows

Source : Constructed by the Authors based on Survey Results

On the other hand, to enlighten the actors of the participatory banking sector in Morocco on the most important criteria to consider when setting up the digitalization process of their services, we devoted part of the survey to this question. According to the results, the respondents put forward five criteria:

• free services as part of digital banking,

• diversification of remote banking services;

• security of personal data;

• speed and immediacy in the processing of requests and operations;

• control of technical breakdowns;

Furthermore, most respondents (79%) believe that digital transformation of participatory banking services should only be partial and not integral, given that there would still be a part of the population that prefers on-site banking.

Thus, the table 3 summarizes the results of the confrontation of the initial hypotheses with the empirical study.

TABLE III. THE RESEARCHHYPOTHESES CONFRONTED WITH SURVEY FINDINGS

Hypotheses	Findings
Digital banking is of much more interest to the young people;	Confirmed
Digital banking is indispensable in times of crisis as well as in normal times;	Confirmed
The digitalization of participatory banking services is a great opportunity and a competitive advantage over conventional banks;	Confirmed
Digitalization will enable participatory banks/windows to improve their customer relationships and increase their post-COVID-19 market share;	Confirmed
The digitalization of participatory banks/windows should be integral.	Not Confirmed

Source: Constructed by the Authors based on Survey Results

D. *Results discussion : Inputs, implications and limitations ofresearch*

The results of our study have indeed confirmed that the digitalization of the services offered by participatory banking institutions is one of the best solutions for these institutions to increase their market share and become more competitive in the Moroccan banking market. The digital transformation will allow participatory banks and windows to rethink and reshape their BM by implementing new tools, processes and strategies.

Given that young people are the category most interested in digital banking, these institutions must take this criterion into consideration while redefining their BM and develop remote banking services adapted to the needs of this important category.

Survey respondents want the banking services offered by participatory banks to be free of charge. Instead of that, as they were launched only two years ago and have not yet made any profits, these new institutions should improve their performance in the coming years. To overcome this double constraint, participatory banks can draw inspiration from the pricing model followed by most online banks and neo-banks. This is a model that combines free everyday services (bank cards, account maintenance fees) with specific services that are paid for on a pay-per-use basis (e.g. unauthorized overdraft) and products that are paid for by all (financing, transfers above a certain threshold). For day-to-day banking products, some are implementing a "freemium" model in which a free basic offer coexists with a "top-of-the-range" offer that provides access to certain additional services. However, there may also be conditions under which the services are free of charge, which require regular use of the account or the choice of the institution as the main bank.

Indeed, digital banking works to strengthen and simplify human relations and provide the best possible customer experience. However, the transformation of the customer experience is only the submerged face of the digital transformation of participatory banks/ windows, which impacts to a large extent their operational processes. The digitalization of a large part of the processes is indeed a strong growth opportunity for the participatory banks and windows, enabling it to shorten and simplify banking procedures. It is therefore a revolution both external and internal to the bank that enables innovation and the success of the digital transformation.

However, this transformation also presents some challenges and risks such as cyber security risks, fraud risks and problems of non-compliance with banking regulations relating to the opening and management of bank accounts remotely. To best master and manage these eventual risks, it is recommended that participatory banking institutions implement an integrated digital strategy, improve their internal processes and equip themselves with a robust, interactive and locked information system.

In April 2020, the Central Bank of Morocco (BAM) has published a circular letter (No. 1/DSB/22020) setting out the application modalities of the provisions of the circular No. 5/W/2017 and particularly its article No. 20 which stipulates the opening of remote accounts, including by electronic means[40]. Thus, banks are required to implement reliable and secure technological means to ensure the equivalence of vigilance ensured by physical presence. BAM also requires that control measures be put in place to ensure the protection of personal data and to mitigate the risk of fraud linked to the use of technology. Participatory banks are also affected by this new circular and must procure the appropriate means to take advantage of the benefits of this new legal improvement.

Furthermore, digital transformation only makes sense if it is seen as a win-win between customers and the bank. According to the results of the study carried out by Trusted Advisors Group in 2018, all Moroccan banks are unanimous on the fact that the customer experience must remain at the center of concerns. Likewise, at all levels questioned in that study, it is understood that the approach to evolution and digital transformation can only be effective if it is collective. Therefore, this collective approach also includes the involvement of the client in the thinking process. This will ensure the anticipation of customer needs in all responsiveness and innovation. In the same sense, we conduct this current study. It is the first exploratory research of its kind in Morocco that was interested in the potential of the digital transformation of participatory banking institutions which have been recently launched in the national banking sphere. The study highlighted the important interest of customers and prospects in digital transformation of the services offered by the actors of this new banking industry.

Thus, this study has implications for Moroccan participatory banking institutions. It could serve as a benchmark to help them achieve several objectives, mainly the following:

- be aware in advance of the expectations of the Moroccan population regarding the digitalization of the participatory banking services;
- get inspired by the results of this survey when setting up the digitalization process of their services;
- rethink their BM through the implementation of new tools, processes and strategies focused on digital;
- cut costs, drive efficiencies and redefine their value to customers;
- build a competitive advantage by being reactive and more responsive to the needs and the requirements of their clients ;
- revitalize post-COVID-19 activity and overcome the difficulties of the period .

However, this study has its own limitations. As with any survey, estimates must be understood within the constraints of the survey instruments, the sampling design, the main limitation lies in the small size of the sample. It could constitute a gap, in particular regarding the extrapolation of our inferences on the opinion of Moroccan population about the topic of the study. Though, this limit is due to the circumstances in which the study was conducted. In other words, due to movement restrictions and the resulting social distancing as measures to flatten the curve of the spread of COVID-19, the only way to distribute the survey was through social media and emails. People were disturbed by the health and economic consequences of the pandemic and few of them bothered to respond to the survey.

On the other hand, this study focused on customers' expectations regarding the digitalization of participatory banking services in Morocco. Thus, to have a global vision of the subject, it would be interesting to complete the study by surveying the decision-makers of the Moroccan participatory banking institutions regarding their willingness and intentions to opt for the digitalization of their services and then to analyze their respective digital strategies.

V. Conclusion

Movement restrictions and the resulting social distancing as measures to flatten the curve of the spread of COVID-19have accelerated the need for digital transformation of banking services. The analysis of the literature review related to the switch from BM to e-BM and the evolution of digital banking, shows that rethinking BM by implementing new digital-focused tools, processes and strategies is no longer a choice but a necessity for all banks. This would not only help them overcome the challenges of the post-COVID19 economic environment, but also help them to even develop their customer portfolio and improve value-added banking intermediation.

The current environment is undoubtedly challenging for banks. The behavioral and economic effect of the coronavirus crisis is profound, and come on top of lingering financial, operational and consumer pressures. But, with the right strategy, banks have a unique opportunity to succeed in the long term. Pursuing advanced technology and digital ecosystems will be key to that success. With these elements in place, banks will cut costs and drive efficiencies, helping them weather the coming storm and redefine their value to customers in a shifting market.

As part of the search for solutions that could help Moroccan participatory banking institutions to revitalize post-COVID-19 activity and overcome the difficulties of the period, our article focused, for the first time in Morocco, on the digital transformation of participatory banking services. To gather customers perceptions on the eventual switch to a digital participatory bank and window, we conducted a survey among the Moroccan population. More than half (59%) of survey respondents are young, with an average age of 24 years. Similarly, the survey results showed that 81% of respondents prefer remote banking via websites (29%) and mobile applications (52%). Furthermore, a large part of the respondents (86%) confirmed that digital banking services are useful in times of crisis as well as in normal times. Moreover, although more than 80% of the respondents are not clients of a participatory bank or window,61% of them believe that the digitalization will improve their relationship with this new industry

Thus, despite the difficulties of the period, this crisis could be a real opportunity for participatory banking institutions in Morocco to reshape their BM and move towards e-BM to take advantage of the competitive advantages of digitalization and successfully overcome the repercussions of post-COVID-9. Out of every crisis comes an opportunity, and this is one that could change the future of the participatory banking industry in Morocco.

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