






# The Moroccan banking system and FinTech deployment: an overview of the literature

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## Abstract

This study provides an in-depth analysis of the Moroccan financial system by examining key banking institutions, their characteristics, and their services. Under King Mohammed VI's leadership, Morocco has emerged as one of the most financially advanced Mediterranean countries and the most developed in the Maghreb. Its openness in tourism and finance has facilitated the growth of both conventional and Islamic banking sectors. Using a qualitative methodology, this research follows a structured approach. First, a literature review examines academic and regulatory perspectives on Morocco's financial system. Then, we analyze Moroccan banks by classifying them as commercial or business institutions and distinguishing between local and foreign financial entities. The study categorizes services into retail, corporate, and digital (FinTech), focusing on Sharia-compliant banking and its customer offerings. Furthermore, it assesses the evolution of digital financial services among Moroccan banking groups and foreign-owned banks. A unique aspect of this research, coauthored by management scholars and Arab studies experts, is its examination of how Moroccan banks communicate with customers, including language use and segmentation based on Sharia compliance. The findings will highlight Morocco's banking strengths and potential improvements that could inspire financial strategies in Italy and other European countries with significant Muslim communities. Additionally, this study identifies best practices for expanding Sharia-compliant services to the hundreds of thousands of Muslim immigrants from Morocco and the broader Maghreb region.

**Keywords:** Morocco, FinTech, RegTech, Islamic Finance, Banking, Management



## 1. Introduction

Morocco geographically overlooks the Mediterranean Sea and the Atlantic Ocean. An Islamic constitutional monarchy governs it with peculiar characteristics representing a unique reality for the Islamic world, the African context, and the Maghreb area.

Islam has been present in Morocco since the 7th century A.D. and has since spread among the native Berber populations. Today, the Malikite school<sup>1</sup> is mainly followed in the Maghreb and is widespread in Egypt, West Africa, parts of Central Africa, north-west Eritrea, and some Gulf states. At the same time, in historical times, it was also prevalent in Muslim Spain and Sicily.

The subsistence in a single state order of Malikite positions, inspired by the mysticism of *tasawwuf*<sup>2</sup> spirituality and conveyed with an *Ash'ari*<sup>3</sup> theological vision, forms in Morocco's Islam a combination unique in the Arab-Islamic panorama, with great flexibility of legal-religious thought and inspiration for the political practice of tolerance and conciliation.

The great originality of Morocco's Islam lies in the fact that it is the product of an ancient and well-established tradition, resulting in a constitutional monarchy where the sovereign is both a temporal and spiritual head.

The Alawite monarchy of Morocco descends directly from Fatima, the daughter of Muhammad. It is the recipient of the title of Sharifian, which provides for widespread prestige linked to the religious and political spheres. Also, in the 1971 Constitution, Article 41 mentions that "the King of Morocco is *Amir al-mu'minīn* (Commander of all Muslim believers). Invested with the *bay'a* (the contract that regulates rights and duties between sovereign and subjects), he oversees the respect of Islam, is the guarantor of the free exercise of cults and is invested with the defence of orthodoxy".

Morocco thus becomes a nation where Islam is the state religion. Still, it also has a strong political power influence and where the Islamic tradition is a source of legitimacy for the establishment. None of the major political parties adopts a secular view of the state, and Islam has been a unifying factor used to rally the elite and general society behind the monarchy. Islam is integral to Morocco's socio-political identity, and its socialism is not antithetical to the Islamic identity of Moroccans and the centrality of tradition and religion in Morocco.

The combination of traditional elements and religious discourse is manifested in the monarchy's cultivation of its rituals of power (Daadaoui, 2010).

Furthermore, Morocco's religious and political spheres have consistently overlapped and are contingent upon one another (Manhardt, 2011).

Some other authors (Parolin, 2013) have examined similar situations of entanglement between religion and political power in other North African states, and others, such as Campanini (2015), write about a link between the political and religious aspects. Consequently, the law and the courts' jurisprudence cannot exempt themselves from this context and must protect the Islamic ideological imprint. Morocco's legal framework, as well as the legacies of the colonial past, is also influenced by Islamic tradition in the judiciary.

Another critical aspect in Morocco is the role of the Ulamas. An Ulama is a Muslim theologian who researches the Koran and the prophetic tradition (*Sunna*), but his knowledge can go far beyond theological knowledge. He is the guardian of Muslim tradition and a man of reference in the State. In Morocco, the Higher Council of Ulamas was created in 1981 to support Morocco's Muslim religious policy. In 2009, King Mohammed VI addressed the Council as follows: "We expect them to be able, with God's help and support, and with the expected efficiency and constancy, to successfully carry out the mission that We have entrusted to them in terms of preaching, awareness-raising and guidance".

Ulamas have historically played a significant political role in Morocco, although they have never really been organized as a body till 1981. Over the years, the role of Ulamas as a counter-power has been increasingly reduced. The Ulamas Council is a direct consequence of their historical and religious role. Ulamas are also important "to ensure compliance with the precepts of Islam regarding the products proposed by banks" (Battanta et al., 2024).

As explained by some authors, Morocco is enjoying a period of internal economic stability, and institutions are pushing for a revival of Islamic legal traditions in the financial sphere. One element that highlights this is that the last decade has seen the

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<sup>1</sup> The Malikite school is one of the four *madhhab*, *fiqh* schools of Islamic law and jurisprudence within Sunni Islam.

<sup>2</sup> *Tasawwuf* is the branch of Islamic wisdom that focuses on Muslims' spiritual development.

<sup>3</sup> *Ash'arism* is a theological movement adhered to by many of the Sunni Islamic world, especially Malikism. The founder was the theologian Abu al-Hasan al-Ash'ari from a Yemenite tribe. The various disciplines addressed in the school are known as *Ash'arite*, and the school is often referred to as the *Ash'arite school* or 'of the *Ash'arites*'.



emergence of Islamic or participatory banks and Islamic banking windows for Islamic products (Daoud and Azegagh, 2022; Fronzoni, 2021).

Morocco is indeed a crossroads of trade for Africa and Europe. This is not only because of its relations with France, stemming from its colonial and protectorate past, and with other European states such as Spain because of its proximity, and Italy because of its significant immigration over the years, but also because of its political stability.

The constant realities of economic growth and a more modern banking system compared to neighbouring countries in the North of Africa are unique in the entire region - which is instead characterized by widespread institutional instability, stagnation and economic depression – and give this country an important role as a privileged pioneer for all economic and financial initiatives that can be activated in the southern Mediterranean Sea. Thanks to Morocco's openness to European investors and due to the localization of industries and offers, Morocco offers, from an economic and commercial point of view, enormous opportunities for businesses as a market outlet. Due to this commercial openness, Morocco is identified as one of 17 key Islamic markets (Foo et al., 2023). The identified markets are Bahrain, Bangladesh, India, Malaysia, Indonesia, Kazakhstan, Pakistan, Egypt, Iraq, Jordan, Kuwait, Oman, Palestine, Qatar, Saudi Arabia, UAE and Morocco.

A peculiarity of Islamic banking is operating by sharing the business risk. This is why it is also called participatory banking, due to Islamic financial institutions' weighted and calculated risk in financing business transactions. For example, participatory modes of finance, including Musharaka and Mudaraba, are generally considered the essence of the design of Islamic financial products and the true spirit of the Islamic banking system (Nouman et Al., 2024).

Another way to operate is using Islamic microfinance initiatives, which may mobilize funds through participatory models such as Musharaka and Mudaraba. There is a great potential to attract depositors amongst the rich who intend to do charity via the Islamic participatory approach of risk and profit-sharing. In the Musharaka fund-raising model, the public can buy shares and become owners of the microfinance program initiated by Islamic banks or choose a specific financing project. Any profits realized from the project are distributed annually to the shareholders, while losses incurred will be shared proportionate to the amount of capital contributed by each participant. In this regard, Islamic banks guarantee the participation of every segment of society. Adopting an Islamic participatory approach in fund mobilization and financing promotes justice, brotherhood, social equality and financial inclusion instead of emerging financial exclusion, which is becoming standard in most developed countries (Dusuki, 2008).

Islam attaches fundamental importance to a distinction between what is Halal (lawful) versus what is Haram (unlawful). Muslims must conform every action of their daily life to a regulatory framework that goes by the name of Sharia. The rules of Sharia apply to every aspect of Muslims' life, both in the private and public dimensions, involving the economic and financial aspects of social and public life. On this topic, we recall Campanini and Arafa's (2020), Aliboni's (2003) and Branca's (2011) studies. Economics, management and finance are not an exception.

For Islamic finance, the results of a specific economic operation are, therefore, to be time judged according to an ad hoc 'balance' of social justice, which will assess the ways according to its ethical criteria; thus, both the final balance of the scales extended at the level of the entire social community (in terms of distributive justice) and the relationship between the individual arms of the scales (in terms of commutative justice between individuals) (Cattellan, 2017).

The Islamic conception is focused on the individual as an active member of society: the state, in outlining its goals and the way to realize them, must take the moral and psychological factors into account, as it has a significant impact on social life, its problems and their solutions (Francesca, 2013).

The economic principles of Islamic finance are based on "the prohibition of Riba (interest), the prohibition of Gharar (uncertainty) and that of Maysir (speculation)" (Cupri, 2021). Risk is another important factor in Islamic finance regarding the permissibility of futures trading in Islamic law and the underlying questions of risk-taking and speculation. For this issue, we can find a detailed analysis in the studies conducted by (Edwards, 2000; Kamali, 2002; Ayoub, 2014).

Islamic finance, in particular, constitutes a sector of the world economy in significant expansion also thanks to the demography of Muslim countries and the emigration of Muslims to Europe, the recipient of a growing interest in the international financial scene, so much to constitute an essential niche with specific rules that are distinct and, in some aspects, even distant from the financial regulations and practices of the Western world but close to sustainable ESG investments.

Muslims have undertaken a profound process of reformulating their identity in contact with Western capitalist societies (Atzori, 2010). Therefore, the Islamic finance sector aims to step up its moral responsibility in using innovative FinTech Financial technology capabilities to address emerging difficulties and protect humanity from the scourge of poverty and hunger (Alsaghir, 2023). Due to these reasons, demand for Sharia-compliant products should remain strong throughout the long term.



Sharia-compliant products will also benefit from the growing focus on ESG products, and sustainability, which Islamic principles have historically safeguarded, is essential (Zucchelli, 2022).

As Vasco Fronzoni, an expert in Islamic law and professor at the University of Venice, recalls: “Financing is carried out through a prevalent typical form of contract of double sale, Murabaha, through which the credit institution buys the asset requested by its client and then resells it to the same client at a higher price agreed upon since the stipulation of the contract and payable on term. With the Murabaha contract, the bank has a fixed profit similar in substance to an interest rate but equivalent in form to a premium on the purchase value of the good” (Fronzoni, 2021)

Islam does not tolerate any kind of gambling and, consequently, commercial or financial transactions that integrate merely speculative activities, characterized by an imponderable risk, whose outcome may depend on chance and that come close to gambling and betting. Instead, activities constituted with entrepreneurial risk are permitted.

In the following section of the paper, we will map the traditional Islamic and FinTech Moroccan banking sector and indicate what innovations, not only regulatory, can be implemented to improve it.

## 2. Methodology

The research methodology used is qualitative and is based on the following steps:

Firstly, a literature review on the Moroccan financial system should be developed based on scholarly literature on the state of the art of the Moroccan banking system, both traditional and Islamic. We also delved into the history of regulators’ positions.

We then analyzed Moroccan banks by checking the type of institution, whether commercial or corporate and the presence of:

- 1) Moroccan and foreign financial institutions.
- 2) Services offered to customers, classifying them into retail, corporate services and technological innovation (FinTech);
- 3) Sharia-compliant institutions and services offered to customers.

Finally, we searched both Moroccan banks’ websites and literature for evidence of the application of FinTech and RegTech within the Moroccan banking system. This is an innovative point of view of the Moroccan banking market that previous works have not yet implemented.

Specifically, a preliminary systematic review of all Moroccan banks was necessary precisely because the literature does not adequately map the peculiarities of the Moroccan banking system and the services offered to retail customers. In our opinion, this kind of snapshot of a rapidly evolving market must be taken in conjunction with our research to have a precise overview of the current state of the Moroccan banking system.

As for methodology, we will use the triangulation method of research results and documents. Triangulation is the use of multiple methods or data sources in qualitative research to understand phenomena comprehensively (Patton, 1999). Triangulation has also been seen as a qualitative research strategy to test validity by converging information from different sources. The validity of the results produced by case studies is confirmed through triangulation processes, which play a very important role in case studies and operate in four forms: (a) data triangulation, i.e. the researcher collects data on the same factors at different times, contexts and situations (where the researcher assumes that these factors should not vary); if all the data collected lead to essentially the same conclusions then they are valid data; (b) method triangulation, when several survey methods and data collection techniques are used simultaneously or in succession to collect the same data or data that are assumed not to vary; if the data collected lead to the same conclusions then the methods and techniques used can be considered valid; c) triangulation of researchers, i.e. several researchers study the same phenomena, using the same methods, the same techniques and the same theoretical framework of departure; if the researchers come to the same conclusions then the research process associated with the individual researcher can be considered valid; d) triangulation of theory, i.e. researchers with different theoretical frameworks and points of view examine the same phenomena; if the conclusions they come to are the same then the theoretical framework of the researcher can be considered valid.

In our case, we used a triangulation of methods and data with Moroccan banks. We triangulated data from different sources, such as websites of Moroccan banks, regulatory Authorities (the Central Bank of Morocco, Bank Al-Maghrib) and scientific contributions through Google Scholar.

Our research took place between 2022-2023, and what emerged is shown in the results of this paper. Multiple survey and data collection techniques were used, as explained by (Azungah, 2018), which include: reports from the Moroccan central bank and the interbank deposit fund, a literature review based on researching the history of the Moroccan banking system with a



particular focus on Islamic and FinTech offers, and finally the websites of Moroccan banks which were cataloged and archived on an excel sheet over a period from November 2022 to September 2023.

In addition to the consulted websites, the services of the banks in Morocco were also included in the cataloging: loans, payments, types of insurance, and Islamic products to create an accurate database of services. To run the database, the French version (compared with the Arabic version if available) of the sites was taken, which is also the unique language in the entire sample of financial institutions examined.

The results were then compared with the evidence that emerged from the literature review in English and French; this comparison gave rise to the analysis and results of this article.

Finally, a solution was proposed in the “Conclusions” section to improve the accessibility and transparency of the financial system using FinTech and RegTech technology by applying automated verification to the Islamic compliance of financial products offered in Morocco. This automated compliance verification uses the machine learning and artificial intelligence technology underpinning RegTech. For the Islamic finance industry, Sharia governance with RegTech will be significant, as RegTech supports Sharia governance requirements and will reduce the potential for Sharia non-compliance emanating from procedural issues (Kunhibava et Al., 2023).

### 3. Literature review and results

#### 3.1 Overview and literature review of Islamic banks in Morocco

Islamic economists and jurists have studied the operations of conventional banks established in Muslim countries since the early 1900s.

The first experience of Islamic finance in the modern sense was the encounter between the experience of European cooperative banks and the Islamic religious traditions of the population settled near the Nile Delta. The first Islamic institution was founded in Egypt in 1963 in the village of Mit Ghamr, and the paternity of its creation is attributed to the economist Al-Najjar, who inaugurated the first Rural Savings Bank using some public funds from the Egyptian state combined with funding from a German financial group (Cupri, 2022).

However, it was not until 1975 that the first Islamic commercial bank was established: the Dubai Islamic Bank.

The 1980s saw a proliferation of Islamic banks worldwide. By 2008, there were more than 300 Islamic financial institutions in over 50 countries.

There are 1389 Islamic financial institutions worldwide operating in more than 110 countries, and, in particular, 505 financial institutions are Islamic banks, including the Islamic windows of conventional banks. (Ali, 2023)

In fact, according to contributions of several authors, the Middle East, USA, and Asia (Crowhuri et al., 2021) are the main markets for Islamic banks, although there is also growth in European countries (Mamedov & Gasimov, 2021; Novikov et Al., 2020; Wani et al., 2021). The rise of Islamic banks was driven by technology after 2020 (Sidaoui et Al., 2022).

In the Western world and particularly in Europe, the first Islamic financial institution was the Islamic Finance House, founded in Luxembourg in the late 1970s, followed by the Islamic Finance House in Denmark, the Islamic Investment Company in Melbourne, Australia, and the American Finance House LARIBA in the United States. In 2004, the Islamic Bank of Britain was founded in the UK; by 2008, five Islamic banks had been established. Citibank, HSBC, Standard Chartered, ABN Amro and Deutsche Bank are, on the other hand, conventional banks that have entered the Islamic banking sector (Guéranger, 2009). The demand from the dynamically increasing number of Muslims in the United States and Europe for financial services and transactions made by the principles of Sharia is constantly growing. Financial products offered by the Muslim industry are attractive enough for Muslim and non-Muslim investors (Mamedov & Gasimov, 2021).

Regarding Morocco, Vasco Fronzoni, in 2021, reports that the first attempt to create an Islamic bank in Morocco took place in 1986 by Wafabank, which had moved its headquarters to Morocco that year. Fronzoni argues that in 1996 a branch of Dar Al-Maal Al-Islami was opened in Casablanca to deal only with investment activities. Still, it closed after only three years due to a lack of user response.

Another attempt was made in 2003 by the Islamic Bank of Qatar, which intended to open a fully-fledged Islamic bank in the Kingdom. However, Bank Al-Maghrib (the Central Bank of Morocco) did not fully support and supervise the initiative. A central control body at that time was not keen on developing the Islamic banking sector because it competed with the Moroccan





banking system. The same bank then tried again to enter the Moroccan market through a partnership with Cih Bank and launched the participatory Umnia Bank in 2017.

The turning point was 2006-2007, during which the monarchy ruled by Mohammed VI carried out major infrastructure (roads and railways, not only). These were aimed at making the country more competitive, with major economic transformations marked by a strong desire to align with the global dynamics of modernity, fully supported after the second political elections of Mohammed VI's reign.

Thanks to a new banking law in line with international banking supervision standards, it was decided to create a new market opportunity for participatory institutions by regulating banks and institutions that opened either a banking branch of Islamic finance activities or a banking or insurance window of Islamic financial products.

Thus, a Commission for the Coordination of Financial Sector Supervisory Bodies was set up, with the task of coordinating the supervisory actions of the regulators of the different compartments of the financial sector (banking, insurance and financial markets), as well as organizing the exchange of information on supervised entities, and also authorizing the central bank of Morocco, i.e. Bank Al-Maghrib, to sign agreements with foreign counterparts, given the increasing presence of foreign banks in both traditional and Islamic finance, and to organize joint inspection missions.

As foreign groups arrived a few years later, we remember the French banking institution BNP Paribas, through their subsidiaries, offered Islamic financial products through a different product brand.

In the case of Credit Agricole, Al Akhdar Bank (AAB) is a separate entity set up expressly to sell products that comply with Islamic law.

The change of orientation of the Central Bank of Morocco on Islamic finance in 2006 led to the drafting of a document containing a series of recommendations on three specific Islamic financial products, Murabaha, Musharaka and Ijara, typical Islamic contracts of ownership or enjoyment, the marketing of which was authorized and favored from then on. The intention was to create windows of Islamic products in existing institutions to meet the market's needs.

The objectives were manifold: to improve access to Morocco's banking system, to bring a new segment of users closer to banking institutions by trying to convince those categories of consumers who do not want to have contact with conventional finance and to attract foreign investment to make the financial institutions of the Arabian Peninsula more permeable and suitable in Morocco's financial and industrial systems.

In 2007, the first banking institution to market these instruments on the Moroccan market was Attijariwafa Bank. The Wafabank had started the dissemination of these products through the marketing of a real estate Ijara, a contract that allows the customer access to a property on a rental basis with the possibility of redeeming it at the end of the relationship with a duration of up to 20 years, available to individuals and companies.

Another bank that marketed Islamic products from the first hour was Banque Populaire, which introduced its own Ijara offer for cars. With this kind of contract, the customer undertakes to lease the asset and redeem ownership through the payment of rent, structured in such a way that ownership can be transferred to the customer at the end of the contract. Customers who pay an advance corresponding to 35% and 50% of the price of the vehicle, as an additional incentive, are not charged any extra fee for the distribution of the remaining value within the monthly payment.

Bank Al-Maghrib has pointed out every year since 2014 in its statistical report (Bulletin Officiel N° 7004 – 4 hijra 1442 of 15-7-2021 and its website) that only 5 of the 19 authorized banks (today, 2023, there are 22 of which 19 are retail banks with permanent establishments in Morocco) existing in Morocco had acted, especially concerning Murabaha and Ijara as in figure 1. This not particularly wide response demonstrated the low interest of traditional banking institutions in investing in a sector that was still considered a niche at the time and could only be achieved if accompanied by appropriate fiscal and legislative corrective measures given the low level of competition, some marketing errors and a fiscal and institutional framework that was not yet ready.

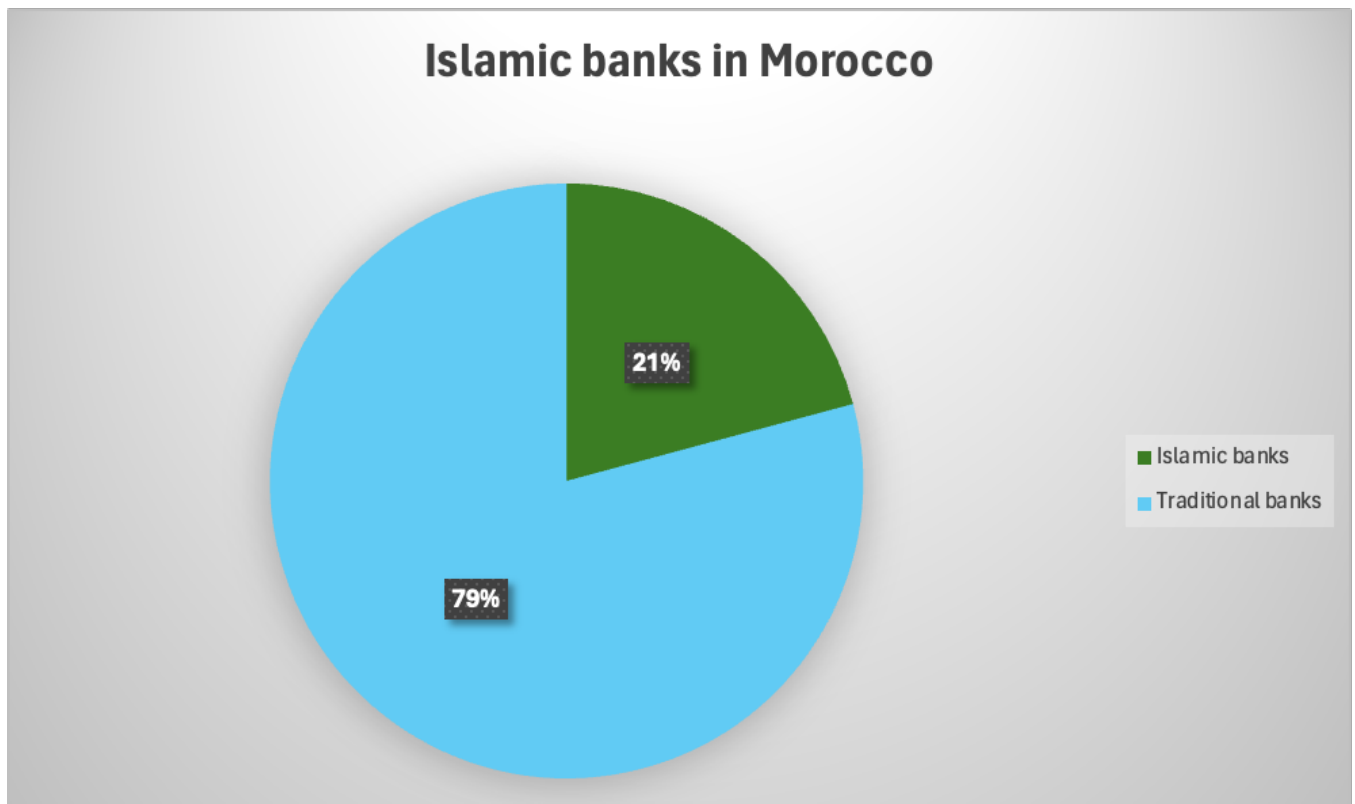


Figure 1 shows the percentage of Islamic banks in Morocco (in green).

Source: Central Bank of Morocco annual statistical report.

Despite surveys such as the one carried out in 2012 by Islamic Finance Advisory and Assurance Services (I.F.A.S.) and reported by (Nigrou, 2012), which found that 97% of Moroccans are interested in the Islamic finance sector (Chihab et Al., 2019), 9% of the sample had no bank account of their own for religious reasons and 31% would be willing to move from a conventional bank to a religiously oriented one. A subsequent questionnaire (Chroqui, 2018) submitted in 2014 to a sample of 583 individuals of different ages and social backgrounds found that 80% of the population involved would be interested in religiously oriented transactions. Around 60% of the sample also rejects banking interest for religious reasons.

In 2012, the government of Morocco took another step towards integrating Islamic finance into the Moroccan institutional fabric and towards the ethical control of economic exchanges, issuing a legislative act to regulate Sharia-compliant products by creating a central Sharia board that can operate nationwide.

The initiative of new legislation and the creation of a Sharia board are needed for compliance with the dictates of Sharia. They can attract foreign investors into the Moroccan banking market.

The renovated Institutional approach from Morocco allows foreign Islamic banks to operate in Morocco with a clear regulatory framework and a figure of reference, the Sharia board, who can guarantee compliance with the service offered to consumers that approach Islamically correct offerings.

In 2012, as Gallup (2014) reported, Islamic Banking was a niche market in North Africa.

The report measured the preference rate for Islamic banking services through additional questionnaires on the awareness, use and preference for these financial products in five countries in the MENA region (Morocco, Algeria, Tunisia, Egypt and Yemen). The survey results were based on face-to-face interviews with 1,000 adults aged 15 and older conducted in 2012. Adults in the sample declared 54% of their preference for “Sharia-compliant” banking in Morocco (Boulila and Ben Slama Zouar, 2014).



In 2015, further impetus to the development of participatory institutions came with a new Banking Law that granted Islamic banks de facto parity between ordinary credit institutions and participatory finance institutions and customers to open deposit and investment accounts in Islamic banks, introducing additional types of Islamic contracts such as Salam and Mudaraba.

Article 62 identifies the Superior Council of Ulama, to which we will return in the next section, as the body in charge of financial supervision and ethical control of the entire sector, the conformity procedure for financial products.

With the adoption of Law 103.12 (Law 103.12, 2014) on participative banks, Morocco's desire to proceed in an assimilationist direction about participative institutions is evident. This intention is highlighted even more by the subsequent enactment of Law 103.12 on participative banks, which is even more so by the subsequent issuance by the Governor of Bank Al-Maghrib of a circular on the operation of participatory products once Sharia compliance has been received from the Superior Council of Ulama. In 2017, testifying to the new course of Islamic finance in Morocco, authorization was granted for the opening of as many as five participatory banks: Bank Assafaa (born from Attijariwafa Bank); Bank Al Youssr (Banque Populaire); Ummia Bank (branch of Crédit Immobilier et Hôtelier); Banque Marocaine du Commerce Extérieur; Al-Akhdar Bank, created jointly with the Groupe Crédit Agricole du Maroc and the Société Islamique pour le Développement du Secteur Privé, to which are significantly added the openings of three Islamic windows, i.e. three Islamic participatory finance branches within traditional credit institutions, Nejma (Banque Marocaine pour le Commerce et l'Industrie), Dar al Amane (Société Générale), and Arreda (Crédit du Maroc).

In Morocco, supervision in the participative banking system is placed under two types of control: the Central Bank, with organizational and supervisory functions from a financial point of view, and the Superior Council of Ulama, established in 1981. The Superior Council of Ulama has been a constitutional institution since 2011, and it legitimises religious policy in Morocco. The Council carries out religious ethical control over the work of participatory institutions, which must remain within a moral, virtuous, and solidarity framework compliant with Sharia. Since the introduction of Islamic finance in Morocco, the Council has also dealt with Sharia compliance with Islamic banking and finance activities and products through religious, ethical supervision of Islamic financial products in the country. Interestingly, the intrinsic elasticity of Sunni Islam allows for not exactly expedients to circumvent the rules but alternative paths that can lead to the same goal.

Ulama in Morocco has always had considerable weight, dealing with the judicial machine, teaching and preaching and, above all, defending religion, being recognized as having the capacity to shape ideas and standards of behavior.

The King of Morocco presides over the Ulama's Council.

Decree 1.15.02 of 9/02/2015 created the Council of the Participatory Finance Commission. The purpose of this Commission is to ensure compliance with Islam's precepts regarding the products offered by banks. It issues opinions on the determinations issued by the Governor of the Central Bank of Morocco, the technical supervisory body, regarding products and insurance. The Commission consists of 9 permanent members who are specialists in Sharia and *fiqh* and five additional members who act as experts and assist the permanent members in carrying out their duties.

All Moroccan participatory or conventional banking institutions that intend to provide participatory finance services must have a Sharia board and a Sharia-compliance committee consisting of 4 to 7 experts, which may be permanent or meet periodically depending on the companies' bylaws. At the end of each financial year, institutions must send a report to the Sharia board, which gives an account of the activities carried out and the actions implemented to resolve the critical issues that have arisen. Institutions must report to the Central Bank of Morocco on Islamic compliance with their operations.

Through their internal compliance committees, the Banks must implement steps to ensure they can operate as participatory institutions in compliance with the regulations.

A fund called the 'deposit guarantee fund for participatory banks' was also created by Law No. 103.12 of 2014, which is managed by the "Société marocaine de Gestion des Fonds de Garantie des dépôts des bancaires". Through access to the fund, it is also possible, in exceptional cases, to intervene in favor of a bank in difficulty, either through aid or capital acquisitions.

### 3.2 The services of Moroccan Islamic banks

Bank Al-Maghrib published a circular in 2007 introducing and regulating the marketing of Islamic banking products (Ijara, Musharaka and Murabaha).

In 2007, The Moroccan Central Bank (BAM) agreed to become an observer of the Islamic Financial Services Board (IFSB)—circular no. 33/G/2007, signed by the Board of Bank Al-Maghrib, governs the use of these three "replacement" products and allows them to be marketed (Fakri et Al., 2024).





A few years later, the Central Bank opted for a gradual approach to creating an environment conducive to developing a participatory finance ecosystem. In 2013, it officially became a member of the IFSB.

Then, after years of waiting due to technical limitations and institutional and political constraints, Morocco finally defined a legal framework for participatory banking services in the Kingdom. For this motivation, two key measures have been implemented: the entry into force in 2014 of a new banking law that explicitly governs the activity of Islamic banks and similar bodies and the creation in 2015 of a national Sharia Board called the “Sharia Committee for Participatory Finance” (Fakri et Al., 2024).

This careful approach began with the introduction of Alternative Finance in 2007 and was confirmed by the Participative Banking Act chapter in 2014. In this sense, this paper aims to analyze the Kingdom’s inventory of fixtures as a newcomer to Islamic banking. The following work will attempt to identify the main strengths, challenges, and limitations underlying the paradigm of Islamic banking in Morocco (Rhanoui and Belkhouit, 2017).

Dar Assafaa, an operator in the alternative finance market, started with a DH 50 million fund specializing in Islamic finance.

Its mission is to provide Sharia-compliant financial banking services. It offers a range of financing formulas and banking related explicitly to account management (account opening, chequebook, ATM card, etc.) It markets i.e. Murabaha, Musharaka and Ijara. However, the marketing of these products has failed to break out of a market niche (El Mezouari et Al., 2013); in their analysis, they give some reasons, some of which we feel we share and expand upon:

- the double transaction of the purchase contract by the bank and the resale to the customer, and this implies more difficulties and higher costs than a traditional bank;
- the lack of competition (Ghannadian & Goswami. 2004);
- the lobby of traditional banks is also the cause that holds back the marketing of these new products and the entry of new Islamic banks;
- lack of political push after an initial euphoria of financial operators;
- lack of skills and training in the sector;
- Marketing is not preponderant compared to other business units of the bank, which does not help with the development ambitions of these activities.

The government attempted to develop training programs and partnerships with various international bodies specialized in supervising and regulating participation in the finance sector and promoting international management standards and specific best practices. It has also eased the tax burden since 2010 for Islamic financial products with the concept of tax neutrality.

Despite these actions, they still lack traditional finance economies of scale, and Islamic banks prefer to finance their customers through sales and leasing contracts. In this way, they can limit the risks incurred to the risk of customer insolvency. Partnership instruments are generally reserved for customers with a proven track record and repayment capacity, effectively restricting the pool of potential customers.

Morocco, thus, still lags behind other Gulf Arab countries in terms of participatory banking. These Islamic financial products have failed to convince the majority of Moroccans, and their presence has been limited by a lack of awareness, knowledge, communication difficulties and the absence of a regulatory framework. As proof of this, only a few European banks offer Sharia-compliant products in Morocco with Islamic product windows, and few have organized themselves as participatory banks. Spanish banks, for example, do not provide Sharia-compliant products, and Credit Agricole has only set up a participative branch out of the French banks.

The heavy backlash of the last international economic and financial crisis 2008 and consumers’ desire for Islamic-compliant banking services are forcing Moroccan financial institutions to face a reorganization to present a banking service compatible with the expectations of those seeking Sharia-compliant products.

We find that there is also an issue related to the dualism of the mission of Islamic banks.

Indeed, participatory banks play two primary roles in Moroccan society: charitable organizations and economic entities with profit motives, selling goods and financial services.

Finally, the participatory bank in Morocco has a dual commercial and financial vocation; this new bank in the local market participates in project creation, transformation, commercialization and wealth.

Boularas Nabil, in “The Impact of Religion on the Banking Sector in the Morocco Case of Participatory Banks”, proposes the variables that influence consumers’ choices concerning the participatory financial system (Nabil, 2019). In his article, we find two variables in choosing an Islamic bank: personal and psychological.

Personal variables are:



- Age and life cycle: a participatory bank is so innovative and creative that it attracts young customers.
- Occupation and social position: sources of knowledge, such as occupation and hierarchical position, can also influence the decision process.
- Personality: psychological characteristics generate a regular and stable response pattern for certain people. Psychological variables are:
  - Motivation: The choice of a participatory bank would be for a Muslim as much as a religious act as a simple transaction or service. For Muslims, the choice of a participatory bank or service is directly dependent on their Islamic values.
  - Beliefs and attitudes: the degree of religious favor and practicality strongly influences a Muslim customer's choice of a bank or participatory service.

Islamic banks of Morocco need to focus on better communication and promotion based on effective market segmentation to attract the attention of Muslim and non-Muslim customers—information campaigns through symposiums and conferences. At the same time, these participatory banks must offer new services through FinTech to meet customers' expectations and needs.

Despite what can be improved in the institutional framework for the diffusion of Islamic finance, Morocco has a reasonable basis for disseminating these financial instruments. Indeed, as the authors Rhanoui and Belkhoutout recall, Morocco has several strengths to accommodate Islamic banks in its country, such as a Muslim population, a perfect geographical location, and a favourable economic environment (Rhanoui and Belkhoutout, 2017).

Thus, after the launch of the first Islamic finance products known as alternative products, the monetary authorities expected to attract many customers interested in this type of product. Still, the expected results have not been seen in the Moroccan market. Six years after the launch of these products, they have even declined over time (Zahid and Ibourk, 2014).

The causes of this failure are different and are investigated by the Moroccan financial literature:

Bank Al-Maghrib, in collaboration with the Professional Group of Moroccan banks (GPBM), has drafted a “tutorial” that sets out the guiding principles of communication on these products and insists on the prohibition of religious mentions, as well as the language adopted by customer service staff.

These actions and restrictions confirm the Moroccan monetary authorities' sensitivity to these new forms of banking.

It is a strict condition that hampers the marketing of alternative products that could hardly be sold without this “halal” label. Furthermore, advertising to promote alternative Islamic bank products has been insufficient or almost rare, lacking brochures, posters and billboards. Moreover, the media did not report on them (El Omari Alaoui and Maftah, 2012).

Similarly, the distribution of these Islamic products was through the structure of conventional banks with an Islamic window, which in turn were not in favor of selling them under their brand, perceiving such products as a threat to their business (Zahid and Ibourk, 2014).

Another issue regarding Islamic windows in Morocco is the moral perception of the Islamic branch. Even banks with conventional Islamic product windows are identified by Moroccan customers as usurious banks. Therefore, any product launched by these entities is perceived as not complying with Sharia law, so a certain customer does not trust them. Thus, strengthening both the banks' communication and the Ulamas' committee and control would be interesting in improving the reputation and name of traditional banks offering Islamic product windows.

Murabaha is considered the product with the most significant scale and success since these Islamic financing methods were launched in Morocco. In terms of value-added tax (VAT), the Murabaha contract is subject to a 20% rate applicable to both the repayment of principal and the profit margin and thus treated as a commercial transaction instead of the reduced 10% rate applied only to interest on conventional loans granted by traditional banks (Attak, 2018). The Murabaha product is also subject to a double taxation of 4% when the bank purchases the asset and resells it to its customers (Attak, 2018). Moreover, the recovery of credit (VAT) from the bank is also a problem for the latter. The bank buys the product at the rate of 20% and transfers it to its customers at 10%. This difference represents a tax credit for the bank that the government should return to; however, since the government is a “bad payer”, the bank always finds it difficult to recover (Nghaizi, 2013).

This lack of tax neutrality towards alternative products is one factor that has led to the high cost of these products. Islamic products are two to three times more expensive than conventional products.

In Morocco, the Islamic financial sector has not been supported by a clear position of (SCU) members on the proposed financing solutions. The issue of the compliance of alternative products with Sharia law has created a divergence of opinions and divided the members of the (SCU) into two clans: moderates and strictest. On the one hand, the former seek to follow contemporary socio-economic changes that require adaptation and flexibility in applying religious principles (Nghaizi, 2013). They rely on basic financial rules to justify their choice. On the other hand, more orthodox Ulamas argue that even if the



structure of these products is Sharia-compliant, they cannot be considered *halal* from a religious point of view since their sources come from conventional banks that do not comply with Sharia rules. Only four banks (Banque Populaire du Maroc (PB), Banque Marocaine du Commerce Extérieur (BMCE), Banque Marocaine du Commerce et de l'Industrie (BMCI) and Attijari WafaBank (AWB), have accepted the marketing of alternative products, and these same banks do not market all authorized alternative products (Mallouli & Sassi, 2020)

Changes in the political environment with the arrival in government of a more Islamic values-oriented political party called the Justice and Development Party (JDP) have brought a new spring to Islamic finance in Morocco. Indeed, the Islamic political formation has expressed willingness to authorize and push the creation of Islamic banks in Morocco. As a result, several foreign requests from renowned banking groups have been addressed to the Moroccan authorities to negotiate the establishment of their services to benefit Moroccan customers.

Participatory banks in Morocco have been operating for two years despite the lack of this type of insurance. Only in August 2019 was Law No. 87-18 published, amending and supplementing Law No. 17.99 on the Insurance Code and introducing *Takaful* insurance. *Takaful* insurance is an Islamic contract to which people subscribe and agree to pay a joint contribution. If a risk occurs, the sum of these contributions, called the "members' fund", will be used to compensate victims. The insurance company *Takaful* manages these funds in return for a management fee. All products part of a *Takaful* insurance contract must comply with the Sharia and thus be validated by the Supreme Council of Ulama.

After the 2012 study by Islamic Finance Advisory and Assurance Services (I.F.A.S.) 2012, which found that 97% of Moroccans are interested in Islamic finance, (Boulahrir, 2018) conducted a study on the prospects of establishing Islamic banks in Morocco. His study covers 581 people from different demographic and professional categories.

He conducted a field survey to quantify the potential Moroccan market and the prospects for establishing Islamic banks. For Boulahrir to carry out his study to identify strengths and weaknesses, opportunities and threats, the interviews took place face-to-face in 17 towns across the kingdom, and the questionnaire consisted of 47 questions. This will give an initial idea of the market's potential and capacity to welcome participative banks.

On the one hand, this study reveals that 36 per cent of the sample does not bank due to religious convictions, while 34 per cent cannot bear the costs exerted by the conventional banking system. On the other hand, Moroccan consumers do not seem to be satisfied with the bank loans offered by traditional banks. Indeed, in addition to religious beliefs that prohibit the use of interest, consumers are limited by the high transaction and practical activation costs, complicated administrative procedures, necessary guarantees or even the long credit disbursement times. This last point was also affirmed by (Aaminou and Aboulaich, 2017), who confirmed that convenience in terms of prices, proximity of branches and quality of services are essential for adopting Islamic financial institutions.

Due to the high transaction and practical activation costs, complicated administrative procedures in Islamic banks are "being asked to develop more rigorous risk identification and management systems" (Drissi and Angake, 2019).

#### 4. Description of the Moroccan banking market and services offered by traditional and Islamic banks

Because of the specificity of Islamic finance in a context like Morocco, the resources of banks and participatory branches have evolved significantly since their introduction in the country to date. Indeed, customers' demand deposits (including *Hamish Al Jiddiya*) increased from 671 million dirhams at the end of 2017 to 1.665 billion dirhams at the end of 2018, an increase of 148% in one year. These deposits reached 2.8 billion dirhams at the end of December 2019. As of March 2020, these deposits decreased slightly and amounted to 2.7 billion dirhams.

Customers' investment deposits at these institutions increased from 23 million dirhams to 335 million dirhams between June and September 2019 and then to 478 million dirhams in March 2020.

Between 2000 and 2015, the Moroccan banking sector went from 21 banks in 2000 to 16 banks in 2006 and to 19 banks in 2015, returning to 21 today, as reported by the "Moroccan Deposit Insurance Corporation", which is responsible for protecting customers in the event of credit institutions' difficulties (19 those with permanent establishments reported by central banks). Mergers and acquisitions, new licenses and changes in ownership structure characterized this period. On the whole, thanks to the policy of de-compartmentalization of banking activities, which began in the 1990s, Moroccan banks have adopted a new "universal bank" business model. Similarly, the state's share in the banking sector decreased following the sale of part of its stakes in *Crédit Agricole du Maroc* and *Crédit Immobilier et Hôtelier* and all of its commitments in the capital of the *Banque*



Centrale Populaire in favor of new foreign equity investments in Moroccan banks. At the end of 2015, the Moroccan banking sector comprised seven banks with a majority of foreign capital and five with a majority of public capital.

The central bank, Bank Al-Maghrib, also called on Moroccan banks to adopt rules for syndicating loans exceeding a certain threshold to pool risks and reduce loan concentration.

Consequently, the analysis of banking competition also calls for examining the barriers to entry into banking, particularly the conditions for granting authorization, transparency of banking practices and information on loans.

We have analyzed the Moroccan banking system in detail, coming up with the following evidence about its peculiarities, which we list below. This analysis was done systematically by comparing the banks' services, ownership, and materials made available by the banks.

The Moroccan system consists of 19 banks in the Morocco Central Bank annual report on its website, as indicated in Table 1.

|   |  | 2021      | 2023      | 2023      |
|---|--|-----------|-----------|-----------|
| <b>Banks in Morocco</b>                         |  | <b>19</b> | <b>19</b> | <b>19</b> |
|   | Banks with predominantly foreign capital | 7         | 6         | 6         |
|   | Banks with mostly public capital         | 5         | 5         | 5         |
| <b>Participatory banks in total</b>             |  | <b>5</b>  | <b>5</b>  | <b>5</b>  |
| <b>Participatory banks with foreign capital</b> |  | <b>3</b>  | <b>3</b>  | <b>3</b>  |

Table 1. *Banks in Morocco: The table is elaborated on from the Moroccan Central Bank (Bank Al-Maghrib) data.*

At the time of the paper's elaboration, we found a strong French presence with BNP Paribas and Société Générale. There is a lot of competition from neighbouring countries. There are several foreign groups: French and Spanish, but also from Arab countries (figure 2).

## Banks with majority of foreign capital in Morocco

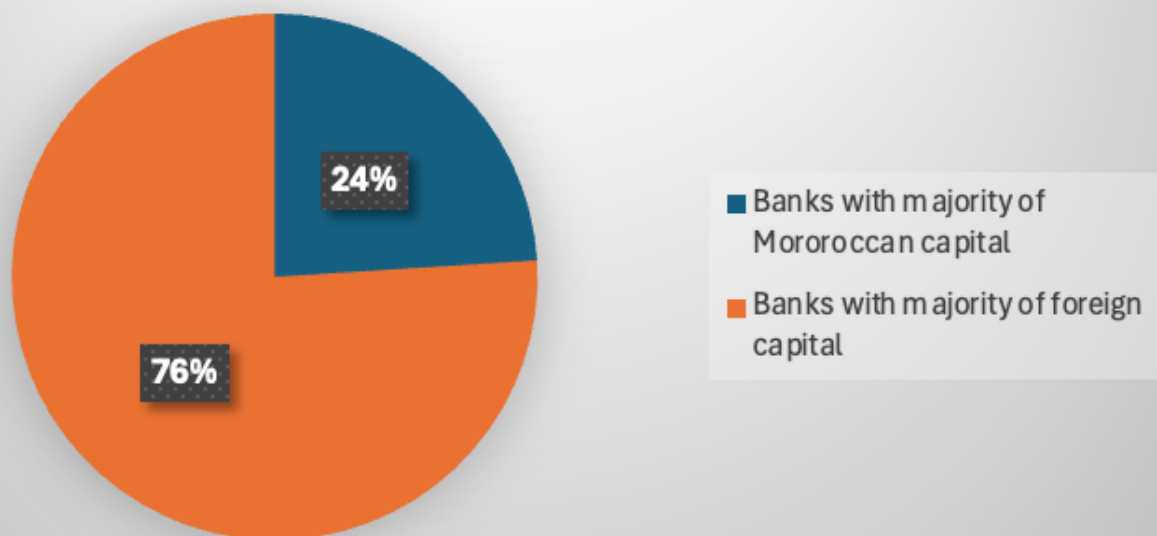


Figure 2 Banks with the most foreign capital in Morocco in 2023 (24%).

There is a well-differentiated Islamic and traditional offer. Communication from banks is in standard Arabic, vernacular Arabic and French (as a business language) but also, to a lesser extent, Spanish (for Spanish banks) and English, specifically for investment banking. Compared to other mapped countries, the system offers a more significant presence of foreign groups and Islamic and traditional products. Morocco also shows more significant aggregation among banking institutions, such as Banque Populaire and the Islamic bank Banque Assafaa. The presence of foreign groups from the Gulf, Jordanian, and American, but mainly French and Spanish, are involved in traditional and Islamic finance, and they use different licenses to operate. Foreign groups offer two distinct brands for Islamic and traditional products: one offers traditional services, and another offers Islamic products, e.g. BMCI (BNP Paribas) and Najmah Islamic Bank.

We found that traditional banks offer the following services: loans, investments, current accounts, overdrafts for SMEs, home insurance, health, capital goods and supplementary pensions. Moroccan merchant banks offer investment, fund management or advice to the government and large Moroccan or foreign companies such as Citibank. French is often used for traditional banks' loans, investments, and pensions. French and, to a lesser extent, English remain the languages of Moroccan merchant banks. The pervasiveness of Arabic also applies to marketing, especially for Islamic banks. Still, French is always present on websites, and communication of services is also offered in French for Sharia-compliant products.

Given the presence of an Islamic offer in Morocco, it could be interesting to involve those segments of the population that are still refractory to the financial system; this comparator could involve legal experts such as the Ulama to include an Islamic certification of financial products.

The main contributions of the topic of our paper in terms of literature are the surveys provided on the diffusion of Islamic finance in Morocco. As reported by (Chihab et Al., 2019), surveys such as the one carried out by Islamic Finance Advisory and Assurance Services (I.F.A.S.) in 2012 found that 97% of Moroccans are interested in Islamic finance. In the same year, 2012, the government of Morocco issued a legislative act to regulate Sharia-compliant products by creating a central Sharia board that can operate nationwide.





El Mezouari et Al. (2013) affirm that a minority of Moroccan banks have an Islamic window or a licence for selling Islamic products. Furthermore, they state that the marketing campaigns of these Islamic products have failed to break out of a market niche. In their analysis, which we share, the main reasons mentioned are:

The considerable cost of the double transaction of the purchase contract by the bank and the resale to the customer, as mentioned in our analysis;

The lack of competition and concurrency for new Islamic banks;

Lack of political push after an initial euphoria of financial operators on Islamic banks;

In some markets like Europe, the sector lacks skills and training (Dewa and Zakaria, 2012).

The main practical contributions come from (Chihab and Lakhyar, 2019), who affirm that there is a low percentage of people (9%) who have no bank account of their own for religious reasons, and 31% would be willing to move from a conventional bank to an Islamic oriented one. The results show that over 30% of clients are eager to switch to a genuinely Islamic bank under certain conditions.

Another similar study from Boulahrir's, published in 2018, reveals that 36% of the sample does not bank due to religious convictions, while 34% cannot bear the costs exerted by the conventional banking system (Boulahrir, 2018). The changes in the two studies do not depend on a simple temporal evolution but rather on the fact that from 2012 to 2018, the legislative framework on Islamic finance in Morocco has profoundly changed, as we pointed out in the literature review.

Banks themselves fear the reputation of Islamic banking products, and some potential customers feel Islamic Windows are not fully compliant with Sharia since it is the same financial institution that deals with traditional and Islamic banking products.

#### 4.1. Overview of FinTech in Morocco

We decided to systematically analyse innovative FinTech services in Morocco in both traditional and Islamic banks for the first time in the literature to map the modernity of the Moroccan banking system.

The central bank, Bank Al-Maghrib, is also involved in promoting and monitoring FinTech techniques. For Bank Al-Maghrib, Islamic finance is a matter of stability and regulation, managing traditional finance and new FinTech techniques. For the Treasury, this type of finance represents a financing challenge insofar as *Sukuk* Islamic financial certificates offer a way to diversify its funding sources for weak or unbanked groups and an adequate means to meet its liquidity needs.

In Morocco, "Transformations related to digital technology are initially of three orders: automation for the mechanical reproduction of a sequence of actions using a program, dematerialization for the replacement of material media by computer files, and disintermediation for the elimination of intermediaries made possible by digital technology" (Ait Ouhammou, 2019). Islamic finance is part of this veritable perpetual evolution that FinTech is experiencing today, particularly in Southeast Asia, Malaysia, and Indonesia. Consequently, "conventional" FinTech and Islamic FinTech share a similar definition. The main difference is that Islamic FinTech must follow Sharia guidelines. Islamic FinTech's size is quite limited compared to the conventional FinTech landscape (Kharrat et al., 2024).

The Islamic version of FinTech can be seen as the provision of Islamic finance products with the use of technology or, in simpler terms, the digital provision of advanced Islamic finance products. The difference between Islamic FinTech and FinTech lies in Sharia. Islam accepts any innovation if it does not break the ethics and principles of Sharia, as explained in (Alfawzan et Al. 2024). This positive effect of innovation is consistent with the view that the Prophet had said: "The person who tries to make a permissive innovation in Islam is rewarded as well as that person's followers until the Day of Judgment" (Al-karasneh and Saleh, 2010). This Hadeeth is the basis for the role of permissive innovation in Islam. Furthermore, innovators frequently require faith in developing and generating ideas throughout innovation. It is important to recall that innovation often involves belief in the supernatural and the need to present exceptional ideas (Walter et al., 2011).

The second link between religion and innovation is network building, which is vital for effectively functioning communities and societies (Maillat and Lecoq, 1992). Even the most critical scholars, such as Ercanbrack, who critically considers attempts by Sharia scholars to square these innovations with traditional conceptions of Sharia law, suggest that innovations will continue to be developed within the permissible channels of Sharia authenticity but concedes that this is a somewhat strained interpretation of classical Sharia (Ercanbrack, 2015). Moreover, religious communities constitute a primary marketplace for exchanging ideas and creating partnerships and associations. These elements support innovation (Dakhli and De Clercq, 2004). There is also to consider that globalization is a favorable context for unfolding Sharia's ordaining ambitions (Aluffi, 2022).



Although Islamic FinTech is still very limited in number, scale and size compared to traditional FinTech, it may grow better with this technology, especially in areas where Islamic banks are present. Concepts such as blockchain, cryptocurrency, crowdfunding, and peer-to-peer are increasingly penetrating the common language of the banking business; even Islamic finance is affected by this revolution (Biancone et al., 2019). An example of these principles is that any FinTech product or service is permissible and acceptable in Islamic finance if it is established that it does not violate or contradict any principle prescribed by Sharia. In other words, any technology is welcome in Islam if no clear evidence prohibits it.

As Mohd Haridan et al. reported, Sharia or Islamic law never limits companies from introducing a new financial product as long as it fulfils all the Sharia principles and criteria. It is essential to consider the benefits of FinTech in enabling the current system and business functions to operate faster and in real time. FinTech is a medium that can fill the social gaps (human needs) and enhance the Islamic economy (Mohd Haridan et Al., 2023). Miroslav Kamdzhlov provides one example of filling the social gap through Islamic FinTech: “Good application of the blockchain could also be observed in Zakat administering. Zakat is one of the main pillars of the Islamic economy and the basic principle of distribution of social goods. It relies on both approaches - voluntary in the form of alms and obligatory, to tackle poverty and social inequality” (Kamdzhlov, 2020).

The benefits of FinTech applied to Islamic finance have also been studied in Kazakhstan, showing that the market needs new players with new financial products and technologies. As reported in the paper, “In general, according to the interviewees, in the long term, the development of the Islamic finance market will be determined by new financial technologies, the Islamic FinTech industry. But in the short term, it is necessary to open Islamic windows in conventional Kazakh banks that significantly expand the client base, increase awareness and demand for Islamic finance among businesses and the population” (Nagimova, 2023). Fintech enables a mobile user experience via smartphones that is fast (e.g. instant payments), automated and personalized, and accessible virtually anywhere with 4G-LTE cellular coverage.

The services provided by both Islamic and traditional banks mainly concern payments and account control.

The Moroccan Capital Market Authority (AMMC) or *Autorité Marocaine du Marché des Capitaux* (AMMC) in the FinTech portal attaches great importance to financial innovation and devotes a significant place to it in its strategic plan. In this context, AMMC is interested in Fintech and the transformations it implies in modern financial markets.

The AMMC in the FinTech portal on its website also provides a forum for the dialogue - between the Authority and Moroccan financial institutions and any financial intermediaries - concerning new FinTech services through an electronic window.

The services we have mapped regarding Moroccan FinTech are transversal to traditional and Islamic banks, as shown in Figure 3:

- creating electronic wallets for Postman’s payments, telephone top-ups, merchant payments, etc.
- development of applications: bank-to-bank transfers, real-time balance enquiries, chequebook orders, contact with advisers, finance simulations, bill and tax payments, advisor, finance simulations, bill and tax payments.

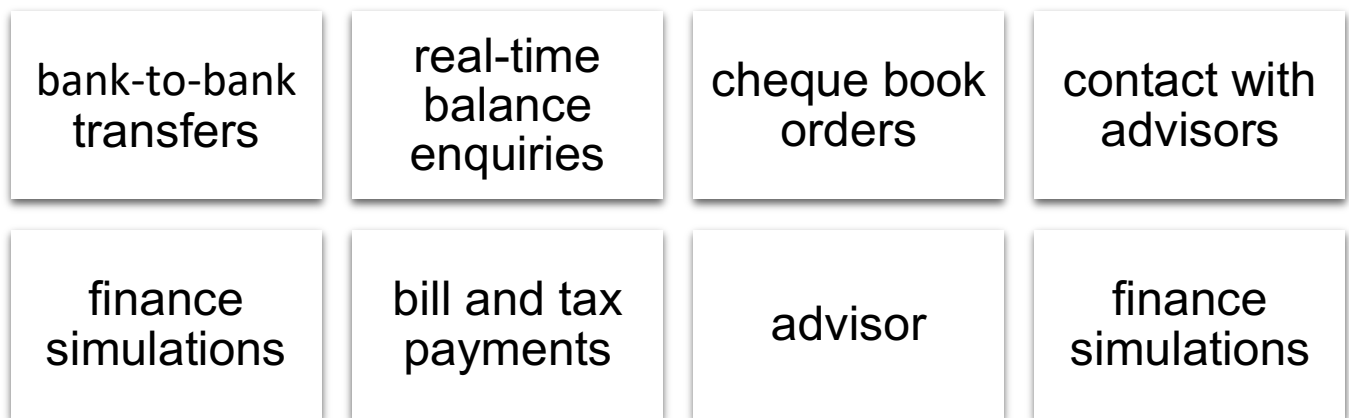


Figure 3. Fintech applications in Morocco

Source: Re elaboration of data provided by our mapping of FinTech services provided by Moroccan banking - through Moroccan banking institutions' websites.

These new services make it possible to reach geographically remote customers, secure digital transactions, and secure e-commerce. It should be noted that French branches of Moroccan banks have implemented advanced fintech services entirely French from those of French banks. Even nationally controlled banking groups have not lagged in the technological implementation of financial services.

## 5. Discussion

Automating processes through more efficient technology also lowers costs, enabling cheaper and faster customer services suitable for the younger generation. The advantages of modern financial technology and traditional financial service providers can be combined through cooperation with start-ups. For instance, while banks provide capital and customers, FinTechs can offer faster, modern service quality and innovative products.

FinTech for Moroccan banks mainly includes online loan applications, home, app banking, chatbots and fast payments. The FinTech services are focused on home banking, equity crowdfunding, app banking, and rapid payments for Islamic banks.

For cost reasons, Moroccan-owned banks tend to aggregate to provide FinTech services as the Banque Populaire group has done—the level of financial digitalization of indigenous banks as FinTech services is on par with French banks. Mobile payment services, financial information portals and innovative online banking services demonstrate the ability of FinTech companies to present the voice of modern financial services to major players in the sector. Banks of Morocco are also opening up to “open banking” to offer customers a new user experience via apps, as banks open up some of their data to third parties via APIs, e.g. payments or reward programs.

Morocco faces significant challenges to achieve a better and more efficient digital transformation. Start-ups and big techs are revolutionizing the world of finance and developing innovative and disruptive banking and financial services. Digitalization is, therefore, a strategic priority and must be so in particular in a demographically young market where remittances play an essential role as Morocco does. Suppose the institutional system, the Moroccan financial ecosystem, cannot keep up with this wave. In that case, the government needs to create regulations so that traditional FinTech and specifically ‘Islamic’ FinTech can be developed, a sector that the authorities can broadly develop. A push in this direction will be needed from the central bank and the Ulama’s council.

As we have seen, religion in Morocco is an essential component of the Country’s culture. Islam is certainly not an obstacle to the development of technology in finance and the modernization of the Moroccan financial system. Products related to the



use of FinTech are always allowed if we think about the underlying information technology. In particular, Morocco's domestic and Islamic offerings focus on payments and money transmission transactions.

Moroccan banks are not lagging in offering digital services, which is a relevant fact. Some Moroccan banks, even state-owned ones, are at the same level in digital finance as French groups such as Credit Agricole. Moroccan banks offer a comprehensive portfolio of products ranging from traditional ones, i.e. loans and payments, to participatory windows and pension and insurance plans on capital goods and special life events. These include purchasing capital goods, weddings, children's education, health insurance and supplementary pension financial products.

The services of Moroccan banks are provided in French and Arabic language. In English, they mainly deal with institutional entities. There is a lack of customer interaction through the Berber language in its Moroccan variant in traditional services and FinTech.

The regulatory issue for central innovation features broad offers but is challenging to compare.

While FinTech services per se, understood as the use of advanced technology to make financial transactions more efficient and faster, are always allowed, this is not the case for financial products that benefit from FinTech.

It is worth noting that despite the government's push for the emergence of an Islamic financial sector, Islamic banks do not exceed five units, a sign that there are still ample regulatory steps to be taken to make the industry attractive to both customers (or prospective customers who are now unbanked due to religious beliefs) and financial investors.

It is not only the government that will have to insist more on participatory finance, but the banks themselves will have to find new channels and attractive applications through marketing to engage customers.

Interestingly, several traditional banks, including French banks, have been willing to try the route of selling Islamic financial products. These banks have both an Islamic window of products but maintain a preponderance of traditional offerings.

Our contribution shows a strong French presence with BNP Paribas and Société Générale. There is a lot of competition from neighbouring countries. There are several foreign groups: French and Spanish, but also from Arab countries.

There is a well-differentiated Islamic and traditional offer.

Communication from banks is in standard Arabic, vernacular and French (as a business language) but also, to a lesser extent, Spanish (for Spanish banks such as Caixa Bank) and English, specifically for investment banking.

Compared to other mapped countries, the system offers a more significant presence of foreign groups and Islamic and traditional products.

## 6. Conclusion

In Morocco, there is a complete offer at the financial level. However, there is still room for improvement in the transparency of the offer, especially in its accessibility, concerning Islamic finance products.

In European countries, banks want to meet customers' needs for transparency and comparison between traditional and new Islamic finance products.

As Islamic banks lack transparency, customers are unsure how ethical their investments are. The Bank needs to ensure that all stakeholders are correctly and adequately protected, that corporate governance is adequate to the status of Islamic banks and that it is not mitigated. Hence, unlike conventional counterparts, Islamic financial intermediaries bear a heavy moral burden to ensure that banks run their affairs with complete transparency. This attention to customers' ethical needs ensures that they are aware that these financial institutions pay full regard to the above basic principles and that financial institutions do not cheat them. It is precisely the attention to the ethical needs of customers that reassures them and prevents them from having doubts and suspicions, as described by (Faizullah, 2009).

Aioanei explained that Islamic banking in Europe has challenges to be met in terms of compatibility with local banking markets, product development and strict anti-money laundering rules; acting as European banks, newly established Islamic banks, as newcomers, will have to face criticism about their possible link with terrorism support and money laundering (Aioanei, 2007).

Belouafi and Belabes underline the necessity in European markets such as the UK and France of some key points about governance and transparency:

- The role of the Sharia advisory board and if it is going to interfere and overlap with that of the managerial committee, the shareholders and the general assembly of the institution;
- Standardization of products and accounting information;



- Transparency, clarity, information disclosure and the promotion of products and services (Belouafi and Belabes, 2010).

Also, Masiukiewicz underlines the shortage of qualified Sharia scholars and the unsatisfactory standardization of Islamic financial products and accounting policies. International Islamic finance institutions (incl. AAOIFI and IFSB) play a significant part in overcoming them (Masiukiewicz, P. 2017).

The transparency and comparability of products with those existing in European markets are essential for the significant development of Islamic finance in Europe.

Regarding Italy, although we do not even have Islamic finance legislation, there seems to be a potential demand for Islamic financial and banking activities (Gimigliano, 2016).

Numerous benefits and opportunities for Italy could be generated to attract Arab sovereign funds to invest in Italy.

That is a huge opportunity; the liquidity that could be generated is of great importance, besides creating employment opportunities that could derive from Arab funds.

Another positive impact would be on the immigrants' integration policies by providing them with a Sharia-compliant financial system on the one hand and benefiting from their funding liquidity on the other hand (Biancone, P., & Radwan, M. 2014).

Another author, Opromolla, states that inspiration could be found in the solutions set forth by the legal system of other European countries, referring specifically to banking and investments. Practitioners and academics should not forget that a dedicated banking law and regulation regarding Islamic finance products is still missing in Italy and that the current Italian legal banking framework is not yet suited for fully harmonized Islamic banking. Nevertheless, there are no insurmountable barriers to establishing an affiliate of an EU Islamic bank in Italy, thanks to EU regulations. Using EU regulations could be the concrete way to foster the entry of Islamic Finance into the Italian context (Opromolla, 2012).

The growing importance of the Halal market and the Islamic banking and finance sector makes the theme treated a theme of extraordinary topicality. As has been pointed out in the paper, the study of the challenges - but especially of the opportunities offered by the opening of this market - do not only (or not so much) contribute to strengthening the safeguard of Muslims by guaranteeing them access to the financial and banking sector by Islamic principles, but also and above all contribute to providing Western economic systems with the tools to know and exploit the growth potential offered by Islamic finance. This is especially true for Italy. Although Italy provides a fertile and flexible legal environment, *de facto*, Islamic banks have not yet been established in the Italian territory due to the lack of dedicated banking laws and regulations. Further research on reconciling Islamic banking with EU regulations and the Italian banking system is needed. Implementing regulation regarding Islamic finance opens the opportunity to create automated compliance systems by design.

Despite fully-fledged legislation, our mapping of services of Moroccan banks also shows that only a minority of banks in Morocco have decided to open an Islamic window or a full-fledged Islamic bank. The only ones that have taken up this challenge are two very well-capitalized French institutions such as Société Generale (which is, however, getting rid of its activities in Morocco) and BMCI (BNP Paribas). On the other hand, consumers of Morocco do not seem to be satisfied with the bank loans offered by conventional banks. Indeed, in addition to religious beliefs that prohibit the use of interest, consumers are limited by the high transaction and practical activation costs, complicated administrative procedures, necessary guarantees or even the long credit disbursement times. This last point was also affirmed by Aaminou and Aboulaich in 2017, who confirmed that convenience in terms of prices, proximity of branches and quality of services are essential for adopting Islamic financial institutions.

The literature also demonstrates that due to the high transaction and practical activation costs, complicated administrative procedures in Islamic banks are “being asked to develop more rigorous risk identification and management systems” (Drissi and Angake, 2019).

Improving services and risk identification could be a booster for Islamic fintech to include unbanked people for religious reasons and fill the poverty and financial inclusion gap through the technology applied. It also reduces the transaction cost because Islamic banks are asked to develop more rigorous risk identification and management systems.

In some Asian markets like Indonesia and Malaysia, it is demonstrated that Zakat is one of the main pillars of the Islamic economy. The basic principle of distribution of social goods is a valid application of Islamic Fintech and particularly a good application of blockchain to monitor transactions and “ tackle poverty and social inequality” (Kamdzhlov, 2020).

The benefits of FinTech for Islamic finance have also been studied in Kazakhstan, showing that the market needs new players with new financial products and technologies. As reported in the paper, “According to the interviewees, in the long term, the





development of the Islamic finance market will be determined by new financial technologies, the Islamic FinTech industry.” (Nagimova, 2023).

There is excellent potential for the diffusion of Islamic banking and FinTech in EU countries with flourishing Islamic communities, such as France and Italy. Although according to the literature (Belouafi and Belabes, 2010), France is ahead in expanding the Islamic finance market. However, it's a complex matter to adapt a financial Islamic system to the EU's rules.

Based on the analysis (Ferrari, 2002) concerning law and religion, the question of the legal status of Islam in Europe is linked to multiculturalism and identity.

Our analysis explained how Morocco's peculiarities in legislation and the spread of innovative services could propel Islamic finance in Europe. Mapping Moroccan financial institutions and technologically advanced services such as those related to fintech represents a novelty compared to the literature.

The limitation of our study is that we have not yet implemented a sample into Moroccan banks because it is necessary before taking such action to conduct a preliminary exploration of this topic. Creating a sample and a purpose that investigates the preferences of the client, especially individuals and SMEs, about banking and fintech offers in Morocco but potentially in EU's Muslim clients could show new business opportunities to digitize services and automate compliance in Islamic banking. Another limitation of the study is that, as pointed out earlier, the exportation of Morocco's results and, thus, good practices in disseminating Islamic finance to serve Muslim customers in Europe has limitations. The first and most significant limitation is the entirely different legislation between the other countries.

All results would necessarily have to be adapted to the local context, especially about legislation. However, as in Morocco, Muslim communities may be receptive to even technologically advanced Islamic financial products such as those provided through FinTech.

As we have expressed and emerged from the literature (Drissi and Angake, 2019), a further limitation to the diffusion of Islamic finance is the lack of stricter risk controls and the necessity of complete client identification. This is one of the reasons why Islamic finance is not at its full potential in Morocco. We would therefore like to propose a solution based on modern technologies to overcome this problem through the implementation of RegTech, Regulatory Technology. So, technology could be - as it is in Europe - adapted to automatize regulation compliance through AI, helping with risk management and the client onboarding process. RegTech does not directly provide new revenues, as FinTech payment services do, but saves costs and time for the incumbent and only indirectly for the customer (Battanta and Magli, 2023) by automating the onboarding and identification processes.

RegTech could also face risk management and compliance issues in Italy (Battanta et Al., 2020). We also think that the expansion of Islamic finance to include Muslim communities in European countries financially could be accomplished through the innovation provided by FinTech and RegTech. This is a possible development in terms of future research that we are also examining, not only to improve transparency and develop more rigorous risk identification and management systems in the Moroccan system but also for markets that do not have a developed Islamic offer. To improve risk management and compliance, financial institutions could be equipped with a comparator of bank offers and bank web pages as a traffic light for Islamic compliance.

In our vision, such a traffic light regulating Islamic compliance with financial products would be inserted in banks' apps and websites. It could differentiate financial products by applying different colors: red = *non-compliant*, yellow = *critical*, and green = *compliant*. The automated system could then propose Islamic-compliant alternatives, thus improving the accessibility and transparency of the financial system through RegTech technology. Implementing such a traffic light could be helpful in terms of risk management regarding Islamic finance products and automated verification of Islamic compliance with financial products via exploiting the machine learning and artificial intelligence inherent to RegTech.

This technological implementation within the Islamic banking sector could help banks reduce cost risks and improve their marketing. Such technology could be a potent tool for Islamic finance regulatory authorities to enhance the inclusion of Muslim citizens in Europe and the MENA region and improve risk management and client profiling.



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