



Vol. 06 No 01 (2024).

P. 527-449

***Financial technology innovations and their role in developing  
the performance of Islamic banks***

***- a realistic study to explore the future -***

*Maache kouider <sup>\*(1)</sup>*

*Dallal Chattouh <sup>(2)</sup>*

*maachekouider2@gmail.com*

*dallal\_gestion2007@yahoo.fr*

*Université of djelfa  
(Algeria)*

*Center University Cherif Bouchoucha  
Aflou, (Algeria)*

*Khalffalah Benyoucef <sup>\*(3)</sup>*

*b.khalffalah@cu-aflou.edu.dz*

*Center University Cherif Bouchoucha  
Aflou, (Algeria)*

*Received:25/01/2024*

*Accepted :24/02/2024*

***Abstract***

This study aims to identify financial technology, its most important innovations and the services it provides, and to shed light on Islamic banks and their attempt to keep pace with financial technology innovations, as well as to identify the success factors and basic keys to employing Islamic financial technology and the opportunities and challenges that stand in the way of adopting financial technology in providing Islamic

This study concluded that the global trend towards adopting Islamic financial technology requires Islamic banks to keep pace with developments and enhance financial services with modern innovations that allow these banks to develop their performance. Among the most important factors for the success of financial technology in banks are excellence in

*\*Corresponding author: maach kouider*

efficiency and community service, compatibility between government policies and legislation, and Among the challenges of Islamic financial technology are the lack of a trained workforce in this field, and the risk of electronic attacks.

✓ **Keyword:** Islamic financial technology, Islamic banks, innovations.

## 1. INTRODUCTION

After Islamic banks achieved many successes in financial management methods and mobilizing financial resources with the aim of advancing development in various economic sectors in many Arab Islamic countries and even European countries in accordance with the rules of Islamic Sharia. It was able, in a very short period, to seize a position for itself in the financial markets as a result of the quality and type of financial services provided to investors and traders in the markets. In the same context, it cannot be denied some violations in application and mistakes in this experiment. It was necessary for these banks to keep pace with developments in the field of financial technology in order to benefit from their various innovations to develop their performance and provide the best services to their customers with the most accuracy and quality, which enables them to ensure their survival in the competitive market. Also, the technologies promoted by financial technologies are very diverse. This allows for the availability of technological solutions that are compatible with Islamic Sharia, especially in the field of crowdfunding, peer-to-peer lending, wealth management, regulatory technology, and others, and with the availability of blockchain technology, which enables an increase in speed in Transactions at the lowest cost with security, in addition to cryptocurrencies.

**The problem of the study:** Based on the above, the following problem can be raised: **What is the reality and prospects of using financial technology innovations in developing the performance of Islamic banks?**

**Importance of the study:** The importance of this study is to shed light on the role of financial technology in developing the performance of Islamic banks through the necessity of using it in the various services provided by Islamic banks, with the aim of keeping pace with developments and modernizing the working methods in these banks, as Islamic banks are the most economic institutions. Influenced by and use of technology, given the nature of the activities you carry out.

### **Objectives of the study:**

- Identifying financial technology, its most important innovations and the services it provides;
- Shedding light on Islamic banks and their attempt to keep pace with financial technology innovations.
- As well as identifying the success factors and basic keys to employing Islamic financial technology, and the opportunities and challenges that stand in the way of adopting financial technology in providing Islamic banking services.

### **2. The theoretical foundation of the study:**

Through this element, we will address the intellectual background of financial technology and the most important basics about Islamic banks, in addition to an attempt to clarify the most important effects of financial technology innovations on the performance of Islamic banks.

#### **2.1. Intellectual background of financial technology:**

**2.1.1. Definition of financial technology:** There are several definitions of financial technology, including:

- Wamda and Pyfort Lab report definition of financial technology: "Financial technology is those products and services that adopt technology to improve the quality of traditional financial services. This technology is characterized by being faster, cheaper, easier, and accessible to a greater number of individuals. In most cases, these services and products are developed by Start-up companies "(Kroush & others, 2020, p. 118).
- Definition of the Digital Research Institute in the Polish capital: "Financial technology is the modern technological inventions and innovations in the field of the financial sector. These inventions include a set of digital programs that are used in the financial operations of banks, which include transactions with customers and financial services such as money transfer, currency exchange, and calculating ratios Interest and other banking transactions (Saleh, 2022, p. 251)".

**2.1.2.Characteristics of financial technology:** Financial technology has a set of characteristics that are as follows (Redha & others, 2019, p. 129):

- It represents a set of knowledge, skills, methods, and financial and banking methods that enable banks to meet the special needs and desires of customers;
- Financial technology, in its various concepts, is not a goal in itself, but rather a means used by financial and banking institutions to achieve their goals of employing technology innovations to meet the needs of individuals and companies ;
- The application of financial technology is not limited to the performance of financial and banking services, but extends to various administrative methods ;
- Enables banks to develop banking services in accordance with the development in technology and make them suitable for the work of companies and individuals ;
- Creating huge customer databases that enable them to obtain other banking services without the need to use traditional routine means of applying for services.

**2.1.3. Financial technology users:** Financial technology is used by four main categories (Hayat, 2019, pp. 41 - 42):

- **Banks:** Financial technology helps banks create new financing products and raise money;
- **Business clients of banks:** Financial technology helps businessmen obtain financing in a short time and pay their dues in record time.
- **Small companies:** they can benefit from direct borrowing in a short time;
- **Consumers:** Individuals can pay their bills and transactions via applications available on smartphones.

#### **2.1.4. The importance and objectives of financial technology:**

- **The importance of financial technology:** The importance of financial technology can be limited to the following points (Ali & Bahlin, 2022, p. 50):

- It works to cover a large number of financial services, such as crowdfunding operations and international money transfers, as well as payments made via smart mobile phones, in addition to online financial portfolio management tools, which is what many banking institutions have been unable to provide to a large number of their customers;
- It aims to change the structure of financial services provided in general, in addition to changing the methodology and mechanism of providing them to customers (clients) in particular, in order to make them faster, less expensive, more secure and more available;

- It works to improve the quality of financial services provided so that they are available at any time and place.
- It contributes to helping financial institutions and financial technology companies achieve a competitive advantage.

- **Objectives of financial technology:** Financial technology aimed to address the shortcomings in the banking system by achieving the following (Rabeh, 2023, p. 55):

- Providing financial services in a different, new and fast way that is compatible with the technological developments the world is witnessing;
- Accelerating and facilitating governments' goals in achieving financial inclusion;
- Helping global economies, especially the economies of developing countries, in reaching the digital economy goals that they have adopted in their development agenda ;
- Financial technology aims to reduce the cost of financial services and provide more privacy by providing customers with personalized services, while providing the ability to compare and thus choose the appropriate service according to the customers' desire.

**2.1.5. Financial technology innovations:** The integration of modern technology and financial services has resulted in many innovations, the most important of which are (Amer & others, 2022, pp. 44 - 45):

- **Mobile payment:** It is the use of a mobile phone to transfer money and fulfill financial requirements, where the cash value is stored electronically in a mobile wallet by an agent specialized in that. (Sometimes it is a financial institution).

- **Crowdfunding platforms:** They are specialized sites on the Internet to finance projects by collecting money - sometimes in small amounts - from a large number of the public, which puts a large number of individuals at the heart of the investment and financing decisions for these projects.

- **Cryptocurrencies (crypto currencies):** They are the unit of commercial exchange that only exists in an electronic form. They are encrypted, decentralized, and operate on a peer-to-peer system. They are completely managed by their users without any central authority or intermediaries, via electronic media only such as computers and smart devices, such as devices. Mobile phone, electronic boards, etc. to purchase in-kind goods or various benefits. It can also be defined as digital assets designed to act as a means of exchange, and cryptography is used to secure their transactions, control the creation of additional units, and verify the transfer of assets and values in a non-

copy manner. Most of them are based on a technology called the Chain of Trust (Chain Block), which ensures transparency, speed and trust. In transportation, these currencies are produced and ensured by a community known as miners.

- **Blockchain:** Blockchain is the largest distributed and open digital record that allows the transfer of ownership assets from one party to another at the same time (real time) without the need for an intermediary, while achieving a high degree of security for the transfer process in the face of attempts to Fraud or manipulation, and all individuals around the world participate in this record. Blockchain can currently be considered the largest database distributed globally among individuals. It is also a base that uses the encryption mechanism (cryptography) to build a decentralized electronic ledger that is linked to data in a historical order that cannot be modified or tampered with. It is characterized by transparency, speed, and ease in conducting operations. It also provides the possibility for the parties concerned to participate in it in building it, ensuring its authenticity, and maintaining it according to Standardized self-operating systems and instructions for use. The first practical application of this technology is encrypted currencies, led by Bitcoin. According to technical experts, not a single case of hacking this technology has been proven since its activation in 2008, even though it is still in its infancy and in the development stage, which is considered a major achievement in the information security sector. For these and other reasons, there is a global trend by countries and major institutions to adopt it in many sectors, including the finance and financial intermediation sectors, property registration, and documentation of transactions.

**2.1.6. Financial technology services:** Financial technology services are as follows (Hanan, 2022, pp. 110 - 111):

- **Payment services:** These are the most active and flexible banking activities that Fintech offers to many customers, providing them with a range of payment methods, the most important of which are: mobile payment, financial transfers abroad at the lowest cost, Wise Transfer (reducing the costs of international money exchange), Kantox exchanges currencies at no cost, manages payment flows available for e-commerce, and facilitates online payments, which includes innovative payment methods, simplifying payment processes between individuals.

- **Banking services directed to individuals:** It includes simple banking services directed to individuals via the Internet, without any physical presence of the agency and at low costs. It also includes solutions for budget management as well as various tools for personal financial management.



- **Investment and financing:** Fintech attracts individuals' savings by providing simplicity in the offers granted; Providing crowdfunding platforms for companies, whether in the form of loans, equity investment, or donations; Providing online consultation to help individuals manage their savings, analyze risks, and provide the client with various proposals in financial investments.

- **Services provided to banks on the basis of a large data base:** It provides solutions directed to the banking sector by collecting and analyzing a large database of data, which will improve the management of the relationship with the customer (purchasing behavior, saving, customer career paths, financial solvency). It also works in the field of cybersecurity, through early detection of any fraud in customer behavior, such as determining the geographical location of smartphones, or encrypting data and sensitive information. Fintech also analyzes risks and provides tools that help in making decisions about managing financial portfolios. And facilitating the preparation of regulatory reports.

- **Services directed to banks and companies:** Financial technology provides many solutions in order to improve the management of companies. We find some of them directed to banks, such as "Blocketch" technology, which develops solutions based on "Blockchain" technology with regard to recording transactions. As for companies, FinTech also provides solutions such as Information processing programs, as well as procedures for controlling information systems, risk management, tax management, etc.

## **2.2. Basics about Islamic banks :**

**2.2.1. Definition of Islamic banks:** There are many definitions of Islamic banks, but the content is the same. An Islamic bank can be defined as a banking financial institution based on providing services and products in accordance with Islamic Sharia, under the supervision and control of Sharia supervisory bodies specializing in financial transactions that study the bank's basic system, then verify all Instructions, studies contracts, defines what is permissible and what is forbidden, and provides guidance on how to adhere to what is required (Nazih, 2007, p. 362).

**2.2.2. Characteristics of Islamic banks:** Islamic banks have many characteristics, among which we mention the following (Osama, on September 28 and 29, 2022, p. 05):

- Applying Islamic values and ethics in banking;

- Excluding usurious interest from all its banking transactions;
- Commitment to the characteristics (developmental, investment, positive) in its investment and banking transactions;
- Providing banking services in accordance with the provisions of Islamic Sharia in all its transactions;
- Applying the method of sharing profits and losses, which is the basis on which transactions in the Islamic bank are based;
- Providing a group of activities that are not provided by traditional banks, such as: the Qard Al-Hassan activity, reviving the zakat system and adopting it within its banking activity, banking cultural activities;
- Linking economic development to social development;
- Directing all efforts towards halal investment;
- These banks do not contribute and have a direct impact on the inflation that occurs in cash.
- Facilitating and stimulating trade exchange between Islamic countries.

**2.2.3. Foundations of Islamic banks:** Islamic banks are based on a number of foundations, which are the following (Karim, 2021, p. 14):

- Commitment to ethical and legal controls and the prohibition of any contract that leads to usury, fraud (which is deficiency and deception in transactions) and deception (exposing oneself or one's money to danger without knowing), and that the philosophy of Islam This is considered a basic condition for fair competition ;
- Real investment, not fictitious, as money does not generate money unless it is associated with an activity or work that takes into account the principles of Islamic Sharia and the sharing of risks arising from real investment between the investor and the user of the money;
- Controlling and directing investments towards necessary projects of public benefit through the development of societies while developing funds in a way that contributes to achieving the purposes of Islamic law in preserving religion, reason, soul, and money;



- Financing that ends with ownership, as it encourages small project owners through their participation in these projects and thus ownership of the entire project by the owners of the project idea, which means achieving both economic and social goals;
- The economic feasibility of projects through studying investment projects to protect all parties dealing in financing instruments, such as partners, shareholders, investors, merchants, customers, and sellers.

**2.2.4.The importance of Islamic banks:** The importance and status of Islamic banks is evident in a number of aspects, which we mention (Umama & Bashkir, 2022, pp. 249 - 250):

- Satisfying the desires of Islamic societies to create opportunities for banking transactions away from the use of interest rates;
- Islamic banks introduced principles for dealing between the bank and the customer based on sharing profits and losses, as well as sharing the effort on the part of the bank and the customer.
- Islamic banks have created systems for investment dealing in all economic sectors, which are investment formulas of an Islamic nature, which are unique to Islamic banks from traditional ones.
- Its pioneering role in developing solutions to the banking and financial crises that struck the capitalist system.
- Islamic banks are socially important, given their great role in serving society and the surrounding environment, by supervising the Zakat Fund and providing interest-free loans.

**2.2.5.Objectives of Islamic banks:** Islamic banks seek to achieve many objectives that lead to achieving the mission of the Islamic bank, and achieving the desired change that mobilizes energies, whether human or material. The most important of these objectives are the following (Al-Jabri, 2016, p. 13):

- Providing the necessary funds to meet the needs of various sectors, through ... Attracting and developing deposits, which are the main source of funds in Islamic banks;
- Contributing to the application of Sharia rules in economic and Islamic transactions in general, by investing the funds of shareholders and depositors in the best available

investment channels, and providing distinguished banking services in accordance with the provisions of Islamic Sharia;

- Achieving profit, which is one of the most important goals, and without it the bank cannot continue or survive, as profit is important for both depositors and shareholders as well.

- Developing human cadres' ability to invest money, and the ability to understand the nature of the work of Islamic banks and train them in a way that raises the level of banks' performance for the better.

### **2.3.The impact of financial technology innovations on the performance of Islamic banks:**

**2.3.1.Definition of Islamic FinTech:** It means the fusion of technology and Islamic finance, which means that any product or service created from FinTech must adhere to the rules derived from Islamic Sharia. Sharia-compliant financial products and services are provided through innovative digital channels. Its activities include creating new technology-based business models to advance economic, environmental, financial, and social goals, which include providing better services through Islamic financial products, and achieving broader benefits such as financial inclusion, poverty alleviation, and social justice (Aliwi & Mohamed, 2022, p. 91).

**2.3.2.Types of Islamic financial technology services:** The main types of services provided in Islamic financial technology are (Muhajibiya & Rabeh, 2022, pp. 99 - 100):

- **Peer-to-peer (P2P) lending:** These are platforms that bring together surplus and deficit owners in a decentralized manner that allows ease of financing and investment at very affordable costs;

- **Crowdfunding:** They are platforms that collect money from the public to finance a specific project and are based on many types, (share-based, donation-based, reward-based, loan-based) ;

- **Money transfer and payments via mobile phone:** This is the most common sector . Many financial institutions and even emerging institutions provide these services;

- **Trading platforms:** such as stock trading platforms, this reduces the costs of dealing on the stock exchange and eliminates the costs of intermediaries such as brokers ;

- **Wealth management:** By combining technology and wealth to manage wealth with the latest technologies;

- **Insurance:** By applying different techniques in providing insurance services.

**2.3.3. Factors for the success of financial technology in Islamic banks:** The success of financial technology in Islamic banks primarily means the necessity of shifting from searching for ways and mechanisms to implement what others (non-Muslims) have achieved in Islamic banks, and working to adapt their products in accordance with Islamic law and the principles of financial work. Islamic banking, searching for the actual needs of Muslim financial and economic clients who are seeking financing and looking for investment opportunities, and working to satisfy them by finding new financial tools or practical and procedural solutions to existing problems, or at least searching for opportunities to benefit from the best findings of innovation in Islamic banks. Without compromising the principles of Islamic financial work, this will only be achieved by taking into account a number of the following basic factors (Al-Helou, 2022, p. 147):

- **Getting out of the jurisprudential dispute:** The Islamic economy in our present world needs to reconcile the jurisprudential schools of thought and the disputed banking positions, due to many factors such as the lack of intellectual unity among the Islamic community as a whole. Therefore, the strategies presented regarding the financial innovations that are presented to clients must be Free from jurisprudential disagreement.

- **Excellence in economic efficiency:** through fair competition between Islamic and conventional banks. The financial products and services provided by Islamic banks in a flexible manner work to eliminate several negative phenomena related to inflation, unemployment, and poor distribution of wealth.

- **Compatibility between government policies and legislation:** When any country sets its government policies and legislation, it seeks to achieve two main goals: first, achieving the customer's interest in all banking transactions, and second, compatibility of society's interest with the customer's interest. Therefore, according to this strategy, all innovations must serve both of them, as achieving the customer's interest rather than society leads to an imbalance in improper planning.

- **Excellence in community service:** The Islamic economy consists of two sectors: a utilitarian sector and a charitable sector. The utilitarian sector maximizes benefit through profitable businesses, as it is shared between the capitalist and Islamic

economy, while the charitable sector maximizes other benefits, and this goal is indispensable for a Muslim; This is why Islamic banks must introduce financial innovations that meet their needs, and thus be distinguished in their services to the Muslim community.

- **Staying away from structure and complexity:** costs and procedures increase, as complexity may lead to entering into transactions that are, in depth, within the forbidden. Shariah formulas should not be distorted by structure and complexity, but rather be clear.

**2.3.4. Prospects of financial technology in Islamic banks:** Islamic banks are working to confront the challenges created by global financial markets, especially with regard to accelerating financial technological innovations, as many Islamic banks are seeking to adopt advanced electronic systems in order to facilitate financial services as well as increase the level of efficiency and effectiveness of performance. Islamic Bank.

The 2021 Global Islamic FinTech report, published by research firm Standard Dinar and financial digitization firm Ellipses, stated that the global Islamic fintech market will have a transaction volume of approximately \$49 billion in 2020. It is expected to grow to reach \$128 billion by 2025, with a compound annual growth rate of 21% until 2025, which is higher than the expected growth rate of 15% for the business of traditional financial technology companies during the same period (Aliwi & Mohamed, 2022, p. 88).

In addition to the development witnessed in banking services and the areas of Islamic finance, technology has become a major enabling factor for financial and commercial services in the future. However, this sector, despite its lack of modernity, has not achieved the expected attraction of interest from regulators, participants in the Islamic financial industry, and consumers alike except since 2014. It is clear through the combination of Islamic finance and financial innovations, that Islamic finance now needs to play a more effective role within this sector, as Islamic financial innovations provide the Islamic finance sector and provide the opportunity to be more applicable to clients from the Muslim public, and emerging Islamic companies have witnessed within the field Innovations and financial technology increased and developed during the year 2018, and the institutions concerned with Islamic financial innovations had a high focus on making financing for consumers and businesses more easily, which included and addressed sixty-six companies, while providing the opportunity to access it at the same time for corporate and individual investors, as it

was estimated at Nearly one hundred companies as of the end of February 2018, and nearly 70% of these companies were active in providing financial services, for example (money transfer, crowdfunding, and digital banking services), and the other 30% are now working in technical infrastructure, for example (information technology, artificial intelligence, and robotics). 46% of these companies have focused on the Asian continent, 24% of them in the European continent, and 23% in the Middle East. 78 % of bank users in the Arab Gulf region want banks to improve their electronic services by adopting more digital technology programs to include more services, as statistics indicate that 40% of financial technology (FinTech) programs used in these countries are (Solutions Payments), i.e. They are electronic payment programs, and for Islamic banks, financial innovations can constitute a key to the success and distinction of these banks, as despite the many successes they have achieved on the ground, these rapid and advanced innovations represent a new means for the banking system, which can help it to introduce its products and services and thus represent... An urgent necessity and strategic policy for these banks.

Despite what was previously mentioned, innovation in financial technology in the Islamic financial services sector has not yet reached its peak, despite the availability of capabilities, especially the availability of strong incentives directed towards responsible investments by banks and investors who aim to search for alternative ways to invest their money. Since the global financial crisis, the Islamic financing option has gained popularity, and not only in countries with a large number of Muslim individuals in the Middle East, Southeast Asia, and Africa (Ali & Bahlin, 2022, p. 54).

**2.3.5.Opportunities and challenges of Islamic financial technology:** Islamic financial technology has great opportunities and challenges, especially with the expansion of the Islamic financial industry. We summarize them as follows (Rabeh, 2023, p. 64):

- **Islamic FinTech Opportunities:**

- Islamic FinTech companies can greatly help new startups;
- Islamic fintech companies can offer a wide range of innovative products and services;
- Provides an option for customers to use both traditional financial services as well as new and innovative services;
- It can provide a cost-effective solution for financial services and will give a lifeline to traditional Islamic banks to go digital and provide financial services at a low cost;

- Islamic financial technology is transparent, accessible, easy to use and can gain customers trust
- Technology brings more ease;
- It can be linked to cryptocurrencies, blockchain and other areas such as cross-border payments;
- The trust of Muslim investors can easily be gained in accordance with the rules stipulated in Sharia.
- **Challenges of Islamic financial technology:**
  - Lack of good and real research in the Islamic financial technology sector;
  - The development of Islamic financial technology has been due to the lack of trained human resources and a clear policy from the government;
  - Educational axioms must bring good research and provide trained staff and academic researchers must provide good research;
  - Islamic financial technology needs to keep pace with the rapid development witnessed in the world of traditional finance ;
  - Islamic financial technology must maintain stability and must protect investors and institutions from fraudulent business practices;
  - Banks are exposed at all levels of transparency ;
  - Islamic financial technology is still new and investors are unable to be sure how much investment is worth investing in.

### 3. Previous studies to support the answer to the problem raised

This element includes a brief presentation of the objectives and most important conclusions reached by previous studies that are related to the subject of the study to support the answer to the problem raised.

#### 3.1. Local studies :

<b>- (Kroush &amp; others, 2020) : “The Future of the Islamic Banking Industry in Light of Financial Technology Developments”</b>	
Objectives of the study	This study aimed to identify the various opportunities that technology provides for Islamic banking, the challenges that stand in the way of adopting financial technology in the areas of the Islamic banking industry, and to determine whether the Islamic banking industry is ready to keep pace with financial technology developments in order to benefit from its advantages and opportunities and reduce threats. And the risks resulting from it.
Most important conclusions	<ul style="list-style-type: none"> <li>- Islamic finance witnessed rapid growth, reaching about \$2,438.6 billion in 2019, an annual growth rate of 7.59% ;</li> <li>- Financial technology developments require Islamic banks to create a kind of balance between risk avoidance and the global</li> </ul>



	<p>trend towards financial and digital technology innovations, as well as ensuring that new technological innovations do not turn into tools for fraud, piracy, and money laundering and do not threaten financial stability ;</p> <p>- Financial technology can open new horizons for growth and enhance the security of transactions. Block chain technology can also help Islamic banks conduct their operations in a safer manner, and with regard to compliance requirements with regulatory regulations and Sharia rulings, they can benefit from the availability of regulatory technology.</p>
<p><b>- (Aliwi &amp; Mohamed, 2022) : “Islamic financial technology and its role in promoting the growth of Islamic finance”</b></p>	
Objectives of the study	<p>The objectives of this study are to identify Islamic financial technology and the most important fields it supports, to identify the reality of Islamic finance in light of the digital revolution, to highlight the drivers of the new Islamic financial technology and its role in promoting the growth of Islamic finance, and to propose solutions that would highlight the status and role of Islamic financial technology in Islamic financial industry.</p>
Most important conclusions	<p>Various statistics indicate the continued growth of the Islamic finance industry locally, regionally and globally. The study also indicated that there are radical and structural changes that have occurred in the traditional business models in providing financial services in general, including those that are compatible with the provisions of Islamic Sharia in particular, and this coincides with the increasing digital acceleration that the world is experiencing today, which has led to the reduction of geographical barriers between countries, as well as Intensifying competition to attract new customers and share markets. In light of these developments that indicate an increasing trend in adopting Islamic financial technology in various Islamic countries in particular, the future of financial technology in Islamic finance appears promising.</p>
<p><b>- (Rabeh, 2023) : “The Role of Technology “Finance in the Development of the Islamic Financial Industry”</b></p>	
Objectives of the study	<p>This study aimed to demonstrate the role of financial technology in developing the Islamic financial industry, by using its techniques to improve financial products and tools. This is done by: trying to</p>

	clarify everything related to financial technology with its most prominent technologies and its most important uses in the financial industry; Determine the current reality of the Islamic financial industry globally and locally; List the most prominent experiences of various Islamic financial technology companies and Islamic banks in using modern technologies in providing their Islamic products. Learn about the opportunities and challenges of Islamic financial technology; Taking stock of the efforts of the countries of Saudi Arabia and Malaysia in adopting financial technology, and highlighting the reality of financial technology in Algeria and the extent to which it can be applied, with the efforts made by the main drivers of this sector.
Most important conclusions	<p>- Financial technology is the use of technology in providing financial services, and its most prominent sectors are finance and payments, which was the first sector to use financial technology, and asset management. There are many financial technology technologies, and the most common technology is encrypted digital currencies. These currencies are simply an encrypted number on the Internet that is traded via Blockchain technology, which is considered the basis of transformation in this sector by eliminating double spending of currency and exchanging it decentralized with great speed and safety and at a cost of almost be insignificant compared to the value of the currency;</p> <p>- Financial technology is an important tool that has enabled the improvement of the Islamic financial industry by reducing the cost of transactions and facilitating the delivery of services to broad segments of the population quickly and easily. Financial technology technologies are those that can be used to develop the Islamic financial industry, as there are technologies that do not conflict with Sharia, such as blockchain and wealth technology because they are just a means, and there are technologies that can be adapted to Sharia, such as crowdfunding and cryptocurrencies.</p>

### 3.2. Arabic Studies :

**- (Redha & others, 2019) : “Financial Technology and its Role in Achieving Sustainable Development: A Exploratory Study of a Sample of Employees of the Iraqi Commercial and Trade Bank of Baghdad”**

Objectives of the study	Studies This study aimed primarily to clarify the role of financial technology as a modern financial experience in the banking sector and its role in enabling this sector to achieve economic and social development by enabling various social groups to acquire electronic services and benefit from them to meet their needs, in addition to analyzing the extent of the Baghdad Banks' response. Iraqi commercial and foreign trade for the idea of financial technology and achieving sustainable development processes
Most important conclusions	Through its innovations, financial technology has contributed to meeting the diverse needs and desires of customers that have evolved with the development of the economic and technological reality. This has enabled the banking sector to enter into diverse markets of a local, international and global nature at the same time. - Financial technology innovations have contributed to providing banking services and processing various banking operations at very low costs compared to their traditional counterparts, in addition to the excellence of electronic services with high quality unlike traditional ones, and this is according to what the sample members see; - The Iraqi banking sector still lacks the infrastructure and technical tools that enable financial technology to achieve its goals. Creating these requirements requires high costs that must be borne by banks to make financial technology successful and benefit from its innovations, in addition to society's lack of the technological culture necessary to obtain technological services. - The statistical results demonstrated that there is an influential relationship between the possibility of applying financial technology by Iraqi banks and the opportunity to achieve sustainable development.
<b>- (Al-Helou, 2022) : "The Role of Financial Technology in Attracting Customers in Islamic Banks - A Study Applied to the Palestine Islamic Bank -"</b>	
Objectives of the study	The study aimed to define the concept of financial technology, identify the factors affecting its growth, identify its reality in Palestinian Islamic banks, determine the impact of its application on attracting customers in those banks, as well as highlight the size of the difference between Palestinian Islamic banks and traditional banks when they apply financial technology to attract customers.
Most important conclusions	Financial technology is a term that refers to the ability of the Palestine Islamic Bank to provide modern and innovative financial services and technologies to customers on a large scale. These

	<p>services are characterized by convenience and reasonable prices. The factors affecting the growth of financial technology are the efficiency of financial engineering, the efficiency of banking marketing, and the efficiency of financial technology. Liquidity management, risk and profitability; - The reality of financial technology in Palestinian Islamic banks. This has become clear through the arithmetic averages of the study sample's response to the questionnaire areas, as the first area: financial technology services in the Palestinian Islamic Bank has an arithmetic mean of (3.51) and a standard deviation of (0.80) with a large degree of agreement, and the second area: The customer experience at the Palestine Islamic Bank has a mean (3.93) and standard deviation (0.84) with a high degree of agreement. - And also in the third area: the role of financial technology in attracting customers in the Palestine Islamic Bank, with an arithmetic mean (3.54) and a standard deviation (0.85) and a large degree of agreement; Finally, the results showed that there is a difference between Palestinian Islamic banks and traditional banks when they apply financial technology to attract customers, and this appeared in the theoretical framework of the study.</p>
<p><b>- (Ali &amp; Bahlin, 2022) : “Financial Technology Services and Tools in Islamic Banks,”</b></p>	
Objectives of the study	<p>The main objective of this study was to identify the impact of employing financial technology in improving the profitability of Islamic banks, in addition to identifying financial technology, its tools and services, and its role in supporting the banking sector, and to shed light on Islamic banks and their attempt to keep up with financial technology innovations, as well as identifying success factors. The basic keys to employing financial technology, the obstacles facing Islamic banks, and the impact of financial technology on the work of Islamic banks.</p>
Most important conclusions	<p>- Despite the many advantages resulting from financial technology for the work of financial institutions, including Islamic banks, and customer experience, the expansion of innovation cannot be done at the expense of the safety and robustness of the financial and banking sector, as well as at the expense of customer protection. Islamic banks must quickly realize the necessity of dealing with financial technology services and tools.</p>

### 3.3. Foreign studies :

**- (Uddin & others, 2017) : "Comparisons of Financial Performance of Islamic Banks and Conventional Banks in Bangladesh"**

Objectives of the study	This study aimed to measure and compare the financial performance of Islamic banks and conventional banks in Bangladesh, and to find out whether Islamic or conventional banks operate efficiently.
Most important conclusions	Researchers compare the financial performance of selected Islamic banks and conventional banks operating within the country using financial data from 2010 to 2014. The results show that there is no significant difference between the two types of banks except for the quality of management. The trend analysis also shows that the management qualities and asset characteristics of conventional banks are better than those of Islamic banks. On the other hand, the capital adequacy and liquidity position of Islamic banks is better than that of conventional banks. Each study has scope for further study. This study was conducted on 5 Islamic banks and 5 conventional banks based in Bangladesh. To get a better understanding, it would be interesting to analyze similar objectives by including all banks operating in this country. This will at the same time increase the sample size which will provide a more detailed view of the performance of the two banking systems.

**- (Alshater & others, 2022) : "Fintech in Islamic Finance Literature: A Review"**

Objectives of the study	This study depicted a comprehensive development of the literature on Islamic FinTech and its sources from the Scopus databases covering the period from 2017 to 2022. The study identified four streams that dominated the discussion of Islamic FinTech literature based on content analysis using the SLR-PRISMA approach in detail, FinTech, visualization. The customer towards Islamic financial technology, the development of Islamic financial technology and its impact on Islamic finance, blockchain, financial inclusion, Islamic financial technology and lending, and crowdfunding.
Most important conclusions	- Financial technology in Islamic finance has tremendous potential in raising the level of social and economic development, especially for backward society, unbanked people, and small or medium-sized businesses; Adopting financial technology in Islamic finance will support the government in improving financial inclusion, confronting financial crises and achieving sustainable development goals.



**- (Khan & others, 2023) :“Islamic Banking: Past, Present and Future”**

Objectives of the study	This study aimed to examine the active and influential elements in research in terms of (countries, scientific institutions, specialized journals, researchers and experts, and the most influential research); Identifying the most important areas of knowledge included in the Islamic banking literature, and presenting research proposals on topics that are still fertile.
Most important conclusions	The study revealed the effective and influential elements in the specialization, and carried out a detailed discussion of the overall and sub-research paths into which the literature of previous studies is divided, namely: (Islamic banks: general views, growth issues, and the legal framework for Islamic banks; performance of Islamic banks and risk management practices; Islamic banks from a customer and marketing perspective: Efficiency dynamics in Islamic banks.

**3.4. Comment on previous studies:** Through what the above-mentioned studies addressed, it is clear that researchers have agreed on one opinion about the important role that financial technology plays as an important tool that enables improving the performance ability of Islamic banks to provide modern and innovative financial services and technologies, as these services are characterized by suitability and prices. Reasonable prices and facilitating the delivery of services to wide categories of customers quickly and easily. This enabled the Islamic banking sector to enter into diverse markets of a local, international and global nature at the same time.

However, despite the many advantages resulting from financial technology for the work of financial institutions, including Islamic banks, and customer experience, the expansion of innovation cannot be done at the expense of the safety and robustness of the financial and banking sector, as well as at the expense of protecting customers, so the challenges and risks resulting from the use of innovations must be taken into account. Financial technology in providing services by Islamic banks into consideration.

## 4. CONCLUSION

For this success, they must keep pace with development, keep pace with progress and use contemporary innovations in various activities. Islamic banks are part of a global system governed by factors of supply and demand and limited by the rules of competition. They have achieved successes despite their short lifespan, and to maintain and benefit from programs and programs in a way that ensures their survival and continuity. In competitive markets.



**4.1. Results:** In light of what was discussed in this study, the following results were reached:

- The global trend towards adopting Islamic financial technology requires Islamic banks to keep pace with developments and enhance financial services with modern innovations that allow these banks to develop their performance by providing high-quality services. It is less expensive and risky, and contributes to increasing its competitive capabilities.
- It is expected that the global Islamic FinTech market will grow to reach \$128 billion by 2025, at a compound annual growth rate of 21% until 2025, which is higher than the expected growth rate of 15% for the business of traditional FinTech companies during the same period;
- The main service types of Islamic FinTech are peer-to-peer (P2P) lending, crowdfunding, mobile money transfer and payments, trading platforms, wealth management and insurance;
- Among the factors for the success of financial technology in Islamic banks are the emergence of differences in jurisprudence, excellence in efficiency, compatibility between government policies and legislation, excellence in community service, and avoiding structure and complexity in transactions ;
- Islamic financial technology faces great challenges, the most important of which is the lack of a trained workforce in this field, the risk of electronic attacks, fear and lack of investor confidence.

**4.2. Recommendations:** Through the results reached, the following recommendations can be suggested:

- The necessity of establishing clear laws and regulations before starting to apply any technology in the field of finance and investment to avoid and reduce risks;
- Working to train specialized employees capable of framing the process of incorporating financial technology into Islamic banks;
- The necessity of digitizing Islamic banks' financial services in order to maintain their market share, ensure continuity and quality in transactions, and reduce costs;
- Different advertising methods must be adopted to inform customers about the new financial services on which modern technology in Islamic banks depends and the extent of their safety and ease of dealing with them.

- The necessity of benefiting from the experiences of Islamic banks that have applied financial technology innovations in providing their services and identifying the factors for their success, especially the experiences of countries such as: Malaysia, Indonesia, and the Arab countries.

## 5. Bibliography List :

- 1- Al-Helou, I. F. (2022). "The Role of Financial Technology in Attracting Customers in Islamic Banks - A Study Applied to the Palestine Islamic Bank -". International Journal for Publishing Scientific Studies , 13 (02).
- 2- Ali, H. A., & Bahlin, M. R. (2022). Bahlin Mustafa Rasoul, "Financial Technology Services and Tools in Islamic Banks". Human Development University Journal , 08 (03).
- 3- Aliwi, A. K., & Mohamed, T. M. (2022). "Islamic financial technology and its role in promoting the growth of Islamic finance". Al-Imtiaz Journal for Economics and Management Research , 06 (01).
- 4- Al-Jabri, K. M. (2016). "Islamic banks versus commercial banks". International Journal of Islamic Economics , Part Two (54).
- 5- Alshater, M. M., & others. (2022). "Fintech in Islamic Finance Literature: A Review ". Journal Pre-proof .
- 6- Amer, Z. B., & others. (2022). "The Future of Traditional Services for Banks and Financial Institutions In light of the innovations of financial technology companies". Journal of Business and Trade Economics , 07 (01).
- 7- Hanan, B. F. (2022). "The Role of Financial Technology in Developing the Performance of Islamic Banks, A Presentation of the Experiences of Leading Countries". Al-Bashaer Magazine. Al-Eqtisadiyah , 08 (02).
- 8- Hayat, B. b. (2019). "Technology startups in the Middle East and North Africa - between drivers of creation and barriers to sustainability". Journal of the Arab Academy in Denmark , (23).
- 9- Karim, M. K. (2021). "The Reflection of Adopting the Standards Issued by the (AAOIFI) on the Measurement and Accounting Disclosure of Financing Instruments in Islamic Banks and Their Auditing Procedures (Applied Research in Al-Nahrain Islamic Bank - a Public Company and the Islamic Advisor for Investment and Development - a Private Joint Stock Company)" . unpublished doctoral thesis, Higher Institute for Accounting and Financial Studies: University of Baghdad, Iraq .
- 10- Khan, A., & others. (2023). "Islamic Banking: Past, Present and Future". Journal of College of Sharia and Islamic Studies , 41 (01).
- 11- Kroush, N. E.-D., & others. (2020). "The Future of the Islamic Banking Industry in Light of Financial Technology Developments". Journal of Advanced Accounting and Financial Studies , 04 (02).

- 12- Muhajibiya, N., & Rabeh, B. (2022). "Using Financial Technology Technologies in Industry Islamic Finance - A Case Study of Organization of Islamic Cooperation Countries -". Annals of Guelma University of Social Sciences and Humanities , 16 (02).
- 13- Nazih, H. (2007). "On the Jurisprudence of Contemporary Financial and Banking Transactions" (éd. first edition). Damascus: Dar Al-Qalam.
- 14- Osama, T. (on September 28 and 29, 2022). "Financial Technology as a Mechanism for Developing... Banking financial services in light of the Covid-19 crisis - a case study of Al-Salam Bank Algeria -". a presentation within the first virtual international forum on: Financial technology as a mechanism for enhancing digital financial inclusion in light of the Corona crisis. Algiers.
- 15- Rabeh, B. (2023). "The Role of Technology "Finance in the Development of the Islamic Financial Industry", unpublished doctoral thesis, specializing in Finance and Banking, Faculty of Economic, Commercial and Management Sciences: University of Blida 2 Lounissi Ali, Algeria.
- 16- Redha, M. S., & others. (2019). "Financial Technology and its Role in Achieving Sustainable Development: A Exploratory Study of a Sample of Employees of the Iraqi Commercial and Trade Bank of Baghdad". University Journal Cihan - Erbil for Humanities and Social Sciences , 04 (02).
- 17- Saleh, T. (2022). "Contributions of Financial Technology Applications to the Development of the Islamic Financial Industry - Finance Platforms Islamic Groups as a Model -". Journal of Economic Notebooks , 13 (02).
- 18- Uddin, M. S., & others. (2017). "Comparisons of Financial Performance of Islamic Banks and Conventional Banks in Bangladesh". ABC Research Alert , 05 (02).
- 19- Umaina, J. B., & Bashkir, A. (2022). "The shift towards Islamic finance to integrate the Islamic banking industry into Algerian traditional banks - an applied study on the National Bank of Algeria in the Chlef Agency". North Economics Journal Africa , 18 (29).