Bekkouche Chaima ¹	Bouadou Fatima	
Laboratory of Industry Organizational	Laboratory of Modern Economics and	
Development of Institutions and Innovation	Sustainable Development	
University of Tissemsilt (Algeria)	University of Tissemsilt (Algeria)	
bekkouche.chaima@univ-tissemsilt.dz	note22@hotmail.fr	

Received: 29/02/2024

Accepted: 08/05/2024

Published: 30/06/2024

Abstract:

This study aimed to understand the reality of financial technology in Islamic banks and its contribution to enhancing financial inclusion. To achieve the study's objectives, a descriptive approach was adopted by elucidating the theoretical frameworks of financial technology and financial inclusion in Islamic banks. Additionally, an analytical approach was employed through a study of Bahrain Islamic Bank over the period extending from 2019 to the year 2022.

The study concluded that Bahrain Islamic Bank relies on innovative financial technology by employing various digital financial services and products, leading to an elevation in the level of financial inclusion. Consequently, financial technology is considered one of the most important mechanisms for implementing and enhancing financial inclusion in Islamic banks.

Keywords: Financial Inclusion; Digital Services; Financial Technology; Islamic Banks.

Jel Classification Codes : G21, G23.

¹ Corresponding author: Bekkouche Chaima ; bekkouche.chaima@univ-tissemsilt.dz.



Introduction

The world is currently witnessing a qualitative leap in the face of a set of challenges posed by the digital transformation amid what is known as the Fourth Industrial Revolution. Financial technology has become one of the prominent outcomes of the digital revolution in the global financial economy. Many Arab countries have begun to keep pace with this rapid evolution of financial technology, which has managed to dominate various sectors. The banking sector was not far from this development, as it introduced numerous innovative banking solutions and services. Therefore, it has become essential to create a conducive ecosystem for this banking transformation, given its significant impact on achieving sustainable development, ultimately leading to the enhancement of digital financial inclusion.

Bahrain Islamic Bank, like other banks, relies on advanced financial technology to activate Sharia-compliant financial inclusion. Consequently, it was imperative to conduct an analytical study of this bank, considering it is one of the leading Islamic banks that relies on cutting-edge technologies and innovative means in providing financial services, whether for individuals or businesses. This has helped attract all categories and marginalized segments, especially those who diligently seek to avoid financial products that do not comply with Islamic Sharia. Thus, it has expanded the scope of financial inclusion and reduced the level of financial exclusion within guidelines and standards derived from Islamic Sharia.

Study problem

The problem of this study can be formulated in the following main question:

How does financial technology contribute to expanding the scope of financial inclusion in Bahrain Islamic Bank?

Study Hypothesis

This study proceeds from the following two hypotheses:

- Financial inclusion can become a strategic goal pursued by Islamic banks and their regulatory authorities.
- The application of financial technology in Islamic banks can contribute to expanding the scope of financial inclusion.



Study Objectives

The main objective of the study is to provide a clear picture of the various changes that have occurred in financial inclusion in light of the developments in contemporary technologies. This includes:

- Understanding financial technology and its application areas.
- Defining the concept of Islamic banks and their relationship with financial inclusion.
- Identifying the significant changes that have occurred in financial technology at Bahrain Islamic Bank.
- Determining the impact of financial technology on the level of financial inclusion at Bahrain Islamic Bank.

Study importance

The research gained importance due to the significant role played by financial technology in elevating levels of financial inclusion to keep pace with developments in all fields. This study is also highly significant for Islamic banks in finding effective ways to leverage Sharia-compliant financial technology.

Study Approach

A descriptive approach was adopted to describe the theoretical frameworks of financial technology and the relationship between Islamic banks and financial inclusion. Additionally, an analytical approach was used to analyze and study the contribution of financial technology to enhancing financial inclusion at Bahrain Islamic Bank for the period from 2019 to 2022.

Study Structure

To address the research problem, the study was divided into three main axes summarized as follows:

- 1) The theoretical framework of financial technology.
- 2) Islamic banks and their relationship with financial inclusion.
- 3) The impact of technology on financial inclusion at Bahrain Islamic Bank during 2019-2022.



I. The Theoretical Framework of Financial Technology

Financial technology, or FinTech, is considered a form of financial innovation generated by technological advancements. It has proven its efficiency in various areas, bringing about significant changes in the banking sector by introducing numerous innovative financial solutions.

1. Definition of Financial Technology

The Oxford Dictionary defines financial technology as: "An industry composed of companies that use new financial technologies, such as computer programs and modern technologies, to provide digital financial services (Nicoletti, 2017, p. 12)."

It is also defined as: "A set of technologies, applications, or new business models in the financial services industry, usually involving more than one complementary financial service, and delivered as a comprehensive process online (Alam & Nazim Ali, 2021, p. 02)."

From the above, it can be said that financial technology facilitates financial transactions through the application of modern technology techniques. This allows consumers and financial companies to expedite and simplify financial transactions due to their ease and the significant role they play in facilitating transactions.

2. Characteristics of Financial Technology:

The key characteristics of financial technology can be outlined as follows:

- Technology, in its various concepts, is not an end in itself but rather a set of advanced techniques used by financial institutions to achieve their objectives (Zawawid & Hajjaj, 2018, p. 66).
- Financial technology services are characterized by quality and speed. FinTech companies complete transactions in record time, often within a few minutes, leveraging data based on algorithms (Zaykh & Younesi, 2022, p. 750).
- Flexibility and cost-effectiveness are distinguishing features. Financial technology offers a range of offers and benefits for payment against goods and services that suit various customers on a daily or monthly basis (Sayihi & Ben Aqlama, 2018, p. 92).
- Access to all users is facilitated through the application of digital technologies, or by redesigning products to suit customers with low or limited income (Falaq



& Sharfi, 2020, p. 302).

- The application of financial technology is not limited to the domain of banking and financial services but extends to administrative methods (Manasiriyah, 2022, p. 402).

3. Areas of Financial Technology Activities

Technology has brought forth a wide range of financial products and services known for their simplicity and ease of use. The most important sectors of financial technology can be summarized in the following table:

Financial Technology Operations	The services provided by financial technology	
Market Support: (Abo, 2023, p. 174)	include several services, including smart contracts, ledger technology, blockchain, data analysis and programming, cloud computing, mobile applications, and artificial intelligence, the ecosystem, infrastructure, customer identity, documentation, and other services.	
Payment and Transfer Operations: (Amroush & Schnitt, 2023, p. 102)	Providing services for transfers between companies and consumers. Electronic payments allow for the flow of electronic financial transactions, e-commerce, and various electronic applications in a short time and at a lower cost. A widely used global service for easy transactions, trusted by	
Finance and Investment: (Shushan & Amaroush,	customers for its security and protection during money transfers. Improving financial markets by listing companies and executing investments. Providing solutions that help regulatory bodies supervise regulated	
2023, p. 534) Personal Finance: (Balqla, 2021, p. 440)	companies. Monitoring spending, savings, credit, and providing a customer database.	
Lending Technology: (Qamish, 2023, p. 333)	Determining tax obligations through technical services. Encompassing all companies that provide financial services, including crowdfunding, money circulation, direct lending, and loan comparison platforms.	
Crowdfunding Platforms: (Salaheddine, 2022, p. 412)	Crowdfunding involves collecting funds from the public to finance a specific project and it comes in various types (equity donation	
Insurance Technology: (Belharsh, 2022, p. 534)	Identifying and mitigating risks by collecting and analyzing big data, then determining solutions and processing methods. Improving customer-oriented services, in addition to simplifying and expediting insurance contract management.	
Asset and Wealth Management: (Wahiba & Awaqasim, 2019, p. 355) Digital Cryptographic	Distribution of wealth and investment management services for individuals through platforms. Consultation and advice: Offering algorithm-based proposals, in addition to portfolio management. Robo-Advisors: Providing automated consultations in place of traditional advisors. Blockchain: Digital representation of a value transferred, stored, or	
Operations: (Bin Hassan & Bin Fadda, 2020, p. 117)	traded electronically. Based on a series of data sets, not necessarily related to virtual currency. e researchers based on the references mentioned above	

Table 1. Areas of Financial Technology Activities

Source: Compiled by the researchers based on the references mentioned above.



II. Islamic Banks and Their Relationship with Financial Inclusion

Islamic banks are considered a necessity of the modern era, representing an effective and tangible reality. They are also known as the pillars of contemporary banking due to their reliance on profit and loss sharing principles, all in accordance with Islamic Sharia, to enhance and support financial inclusion.

1. Definition of Islamic Banks and Their Functions

Islamic banks have distinctive characteristics that set them apart from traditional banks. Hence, we will present the key definitions and functions associated with them.

1.1. Definition of Islamic Banks

Scholars and researchers in the field of Islamic banks have provided various definitions due to the diversity of perspectives regarding Islamic banking. Among the definitions presented are:

"A financial institution that conducts banking transactions in accordance with the rules and regulations of Islamic Sharia, aiming to preserve Islamic values and ethics, and achieve the maximum economic and social returns for the realization of a noble life for the Islamic nation (Boumod, Mutrif, & Shawi, 2020, p. 399)."

"A financial banking institution that is committed, in all its transactions and investment activities, to gather funds and optimize the use of its various resources. All its actions are in accordance with the principles of Islamic Sharia and its overall objectives, linking its goals to the objectives of the Islamic society in building an Islamic solidarity community (Shaheen, 2017, p. 328)."

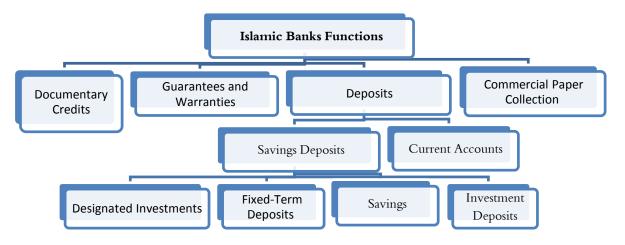
Islamic banks can be defined as the activity or banking system that complies with the principles of Islamic Sharia. The main principle in Islamic banking is the prohibition of interest or its use for commercial purposes, with the fundamental standard behind its principles being profit and loss sharing.

1.2. Functions of Islamic Banks

Islamic banks engage in various operations and activities. It is evident that the activities of Islamic banks involve obtaining funds and then operating them, in addition to providing banking services such as accepting deposits, collecting commercial papers, letters of guarantee and bank guarantees, documentary credits, and bank transfers. All of these activities are conducted in accordance with the principles of Islamic Sharia (Khalifa & Al-Obaidi, 2018, p. 86).



Fig.1. Functions of Islamic Banks



Source: Compiled by the researchers based on the above.

2. Definition of Financial Inclusion and Its Dimensions

Financial inclusion aims to provide financial services to all segments of society, making it an economically and socially effective tool. Therefore, it is essential to understand financial inclusion and its dimensions.

2.1. Definition of Financial Inclusion

Financial inclusion is defined as the ability of individuals and companies to access a complete range of financial products and services at a low cost that adapts to their needs (transactions, payments, savings, credit, and insurance). These services are provided in a documented manner (Abbes & Sadi, 2018, p. 9).

2.2. Dimensions of Financial Inclusion

The leaders of the G20 agreed with the Global Partnership's recommendation on three main dimensions of financial inclusion:

a. Access to Financial Services

Refers to the ability of customers to use financial services from official institutions by determining levels of access to opening and using a bank account by analyzing various barriers (Qamish, 2023, p. 333).

To measure this dimension, some indicators must be available (Boutalb & Safari, 2023, p. 794):

- The amount of deposits in commercial banks and credit institutions per 100,000 adults.



- Services provided through modern means such as mobile phone accounts.

b. Usage of Financial Services

Indicates the extent to which customers use financial services provided by banking institutions. This requires collecting data over time periods (Saigi, 2023, p. 41).

This data includes (Farhoul, 2023, p. 234):

- Adults who own an official account, including deposits and credit, or have international financial transfers.
- The number of small and medium-sized enterprises with official accounts and phone payment accounts.

c. Quality of Financial Services

This dimension is of great importance as it has a direct relationship with customers. It reflects the importance and quality of the financial service provided to them. Since this dimension is intangible, it is influenced by various factors such as:

- Ability to bear costs: This indicator applies to all categories, especially those with low incomes, measuring the cost of account retention, such as credit transfer costs, annual fees, and average monthly costs (Bouri & Birahimi, 2023, p. 328).
- Market and consumer behavior: An indicator reflecting the existence of official entities for settling internal and external disputes, such as complaint resolution, system flexibility allowing the customer to obtain reasonable rates (Alali & Teniou, 2022, p. 511).
- Other factors: These include market competition transparency, effectiveness of compensation mechanisms, consumer protection services, financial guarantees, and moral factors such as consumer trust (Ousyaf & Shawi, 2021, p. 68).

3. Role of Islamic Banks in Achieving Financial Inclusion

Islamic banks play an effective role in achieving financial inclusion, and this role can be identified in the following points:

- Expansion in the Islamic banking sector's financial services is considered one of the most important strategies and programs pursued by most



countries to achieve high levels of inclusion, especially as Islamic finance has become more flexible in facing various financial crises (Yasmina & Bashkir, 2023, p. 619).

- Establishing Islamic banking windows in several banks and financial institutions allows for an increase in demand for Islamic banking services, thereby contributing to increased financial inclusion (Falaq, 2021, p. 288).
- Innovation of modern financial products based on savings and insurance, in addition to expanding banking service networks by increasing the number of ATMs, which, in turn, attracts new segments of society (Haji, 2023, p. 398).
- Islamic banks have become leaders in economic development by offering Sharia-compliant financial solutions with economic impact, contributing to an increase in access to banking and financial services for large segments of society. This has a significant impact on improving levels of financial inclusion (Lafifi & Boghazi, 2023, p. 124).

III. Impact of Technology on Financial Inclusion in Al Salam Islamic Bank in Bahrain during 2019-2022

This aspect aims to understand and measure the relationship between the study variables, considering Al Salam Algerian Bank as one of the most important Islamic banks operating in Algeria. Therefore, we will conduct an analytical study of Al Salam Bank from 2019-2022 to determine the impact of financial technology on financial inclusion.

1. Introduction to Al Salam Bahrain Bank

Al Salam Bahrain Bank was established on January 19, 2006, in the Kingdom of Bahrain with a capital of 318 million US dollars. The bank began its actual operations on April 17, 2006. It is considered one of the fastest-growing banks in the Islamic banking sector because it works to minimize risks and respond immediately to market trends. Additionally, it offers a variety of multi-functional and digital services that rely on modern financial technology to meet the needs of its contemporary and evolving customers, all in accordance with Islamic principles.



Fig 2 Market Share in Al

2019-2022		Salam Bank Bahraini	
Years	Net Profits	8,00%	
2019	56 million US dollars		
2020	24 million US dollars		
2021	56 million US dollars	92,00%	
2022	88 million US dollars	Bahrain Market Share	

Source: prepared by the researchers based on (Al Salam Bank, 2022)

As seen in the above figure, Al Salam Bahrain Bank holds the largest market share among Islamic banks in Arab countries. This is attributed to the bank's policy of relying on an information technology infrastructure that utilizes the highest levels of advanced technology. Regarding net profits, it is evident that Al Salam Bahrain Bank achieves high profits, significantly increasing from year to year, especially in 2022. However, in 2020, profits decreased to 24 million US dollars compared to 56 million US dollars in 2019 due to the spread of the COVID-19 pandemic. Despite this, the bank continued to operate in the challenging market conditions and managed to achieve profits.

2. Principles of Al Salam Islamic Bank in Bahrain

Table 2 Net Profit Evolution from

Al Salam Islamic Bank relies on a set of values and financial principles derived from financial technology compatible with the framework of Islamic Sharia in providing its banking services and products. These principles and their application areas can be clarified in the following table:

The principles	Scope of Application
Leading bank in Islamic banking	Providing innovative banking products and services in compliance with Islamic Sharia principles.
industry	Establishing a leading brand in several countries worldwide.

Table 3. Principles of Al Salam Islamic Bank in Bahrain



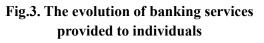
Study of Dumanie Duma for the Ferror (2019 2022);			
Relying on financial technology	Offering a comprehensive range of innovative financial products and services that adhere to Islamic Sharia.		
Building relationships with customers	Providing innovative solutions to its customers to help them achieve their financial goals efficiently and easily.		
Digitization as the foundation of their work	Utilizing smart and efficient banking services, adopting a cutting- edge digital mindset to meet the banking needs of its customers.		
Achieving financial inclusion	Cultivating a culture of integrity and fairness within the bank, along with achieving financial and social well-being and a sense of responsibility. This positively reflects on raising levels of financial inclusion for all segments of society, particularly the impoverished.		
Innovation and excellence	It motivates its employees for creativity and excellence by providing a stimulating work environment that supports growth and development to achieve its desired goals.		

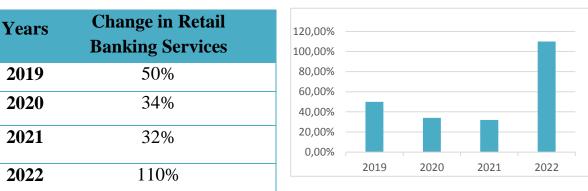
Source: Compiled by the researchers based on reports provided by (Al Salam Bank, 2019-2022)

3. Banking Services Provided to Individuals

Al Salam Bank offers a wide range of services for individuals based on modern digitization, which, in turn, has led to an increased demand for these services. This can be illustrated in the following table:

Table 4. Services d	levelopment for the period
2	2019-2022





Source: Compiled by the researchers based on reports provided by (Al Salam Bank, 2019-2022)

Through the table and the above chart representation, it is evident that the products offered to individuals are continuously changing. Al Salam Bank has consistently achieved tangible growth in its individual banking services over several years. However, the notable change occurred in 2022, where there was a



110% increase compared to 2020. This is attributed to the opening of two branches in 2022 with the aim of serving customers by providing fully innovative paperless electronic banking services, inspired by the digital transformation. It represents the digital roadmap of Al Salam Bank in Bahrain, aligning with technological advancements to ensure the achievement of strategic goals, whether directed towards customers or related to the institution's expansion. In 2022, Al Salam Bank was awarded the Best Bank for Retail Banking Services in Bahrain.

4. Evolution of Financial Technology Services at Al Salam Bank Bahrain from 2019-2022

In recent years, Islamic banks have experienced rapid development in services provided to consumers and businesses, keeping pace with technological advancements. These advancements have introduced new forms and models of work that meet various needs and services related to various financial operations in diverse and innovative ways. Al Salam Bank has actively embraced this technological evolution to maintain the significance of its role.

Years	Technological developments in Al Salam Islamic Bank for the Kingdom of Bahrain		
	Conversion of all credit and prepaid cards for contactless payments, completing transactions within seconds.		
2019	Organizing a computer hackathon to explore new and innovative financial technology platforms to enrich the banking experience and achieve greater customer satisfaction.		
	Introducing an innovative service that allows customers to schedule appointments electronically before visiting branches, reducing crowding by scheduling appointments in advance.		
2020	Launching a new account through the mobile application that enables customers to grant additional accounts and debit cards to all family members.		
	Enhancing digital channels by offering banking services via WhatsApp to enable customers to inquire at any time.		
	Providing cloud-based services to increase productivity during the lockdown period resulting from the spread of the COVID-19 pandemic.		
	Launching the new version of the Danat savings program, which attracted 4000 new customers.		
2021	Creating non-paper-based PINs through the ATM network and activating or deactivating the card through voice response.		
	Providing an electronic platform for small and medium-sized enterprises without the need for paper documentation.		
2022	Introducing an advanced self-service platform, utilizing biometric customer identity verification technology known as "Know Your Customer" electronically.		

Table 5.	Principles	of Al Salam	Islamic Bank	in Bahrain
----------	------------	-------------	--------------	------------



Al Salam Bank entering into a strategic partnership with Bahrain Live platform to provide cardholders with exclusive offers and discounts, in addition to offering the Apple Pay service.

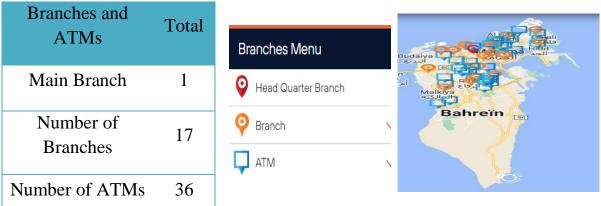
Enabling young people aged 10 to 18 to open savings accounts to support nonpaper instant accounts.

Source: Compiled by the researchers based on reports provided by (Al Salam Bank, 2019-2022)

5. Branches and ATMs of Al Salam Bank Bahrain

Al Salam Islamic Bank in Bahrain provides an extensive network of branches and ATMs in various regions of the country to meet the needs of its customers. This is illustrated in the following table and figure:

Table 6. Number of branches and ATMs for AlFig.4. Branch and ATMSalam Banklocations



Source: prepared by the researchers based on (Al Salam Bank, 2024)

Table and Figure above illustrate the wide and extensive distribution of branches and ATMs in the Kingdom of Bahrain. Despite being one of the smaller Arab countries, the bank has 17 branches and 36 ATMs. This widespread presence signifies that Al Salam Bank Bahrain has implemented financial technology leading to a broad geographical coverage, represented by branches and ATMs in key economic areas of the country. This contributes to the financial inclusion efforts of Islamic banks.

6. Impact of Financial Technology on the Reality of Financial Inclusion at Al Salam Bank for Various Sectors

Financial technology in Islamic banks has become the primary driver for performing various daily tasks and services, catering to individuals, companies, and even specialized services. It aims to provide a wide range of innovative banking services to enhance financial inclusion and improve the efficiency of



service delivery that meets the needs of customers. The table below summarizes the key services provided by Al Salam Bank across various sectors:

Type of Services Provided	Type of Technology	Advantages
Services Provided for Individuals	Youth Account	Encouraging youth savings, such as providing them with gifts through Danat accounts, recurring monthly transfers without fees.
	Credit Cards	Specially designed to meet all needs and better organize expenses. Among these cards are the Platinum and Signature (contactless) cards, and the more you use the card, the more you earn.
	Self-service Terminals	Aiming to make banking services convenient for customers by opening or managing accounts, issuing new cards, and more.
	Private Banking Services	Providing specialized wealth management services, offering diverse financial solutions and banking services to enter the global investment field.
Services Provided for Individuals	Visa Infinite Credit Card	Exclusive offers for hotels and flights with no subscription fees, secure online shopping, without usury or acceptable interest worldwide.
	Visa ATM Card	Travel insurance for trips (health insurance), globally accepted smart chip car rental service at ATMs.
Corporate Services	Corporate Cards	Facilitating digital company expense management through platforms like purchase cards, travel cards, and virtual cards.
	Electronic Banking Services	Remote money management such as downloading trade finance agreements, salary transfers, quick payments, and extracting account statements.
	Salary System for Payroll	Highlighting innovative solutions that provide financial transactions for the unbanked. Electronic employee management, maintaining work hours efficiently.

Table 7. Financial Technology Provided for Various Sectors at Al Salam Bank

 Bahrain

Source: prepared by the researchers based on (Al Salam Bank, 2024)

IV. Conclusion

This study has highlighted the role of financial technology in enhancing financial inclusion in Islamic banks through an analytical study of Al Salam Bank in Bahrain during the period 2019-2022. Financial technology has created a new field that blends financial knowledge with technological skills, providing a conducive environment and contemporary financial services that align with the evolving needs of customers. This has modernized the banking sector and boosted its competitive capabilities, resulting in an overall improvement in financial inclusion.

Bahrain has successfully introduced financial technology into Islamic banking, keeping pace with its rapid developments. This is evident in the assets, profits, and types of services offered by Al Salam Bank.

Study Results

The study yielded several results, summarized as follows:

- Services provided to individuals and companies by Al Salam Bank through features like the contactless credit card, Visa Infinite credit card, significantly increased the efficiency and reach of financial services, positively impacting financial inclusion.
- Al Salam Bank in Bahrain experienced a qualitative leap in financial technology by offering advanced banking services such as Apple Pay and self-service platforms, leading to increased customer interest and bank profits.
- The bank implemented incentives to attract new customers, including a digital gifts program, resulting in 4,000 new customers.
- Al Salam Bank Bahrain received the Best Bank for Retail Banking Services award in 2022 for its achievements in financial technology and digital transformation.

Recommendations

Based on the findings, the following recommendations are proposed as solutions for Islamic banks:

- Encourage collaboration among Islamic banks in financial technology to uplift the Arab economy, aligning with customer needs and building trust between Islamic banking and customers for advanced financial inclusion.



- Promote digital technology awareness through advertising, especially targeting illiterate and low-income groups who may struggle with adapting to innovations and changes.
- Benefit from successful global experiences in financial technology, such as implementing blockchain applications.
- Reduce fees and costs for services and products to make banking services accessible to all segments of society, promoting broader adoption.
- Address legal and regulatory frameworks hindering the development of Islamic banks in financial technology and digitize Islamic financing formulas to enhance financial inclusion levels.

V. Bibliography List

- 1. Abbes, M. A., & Sadi, K. (2018). Construction of a Financial Inclusion Index for Member Countries of the Organization of Islamic Cooperation (OIC). *Journal of economics and applied statistics*, 15(1).
- Al Salam Bank. (2019-2022). Al Salam Bank Announces Financial Results for 2019-2022. Retrieved 01 24, 2014, from BAHRAIN BOURSE: https://bahrainbourse.com/File%20Attachments/12022023123132/12022023123132 File1.pdf
- Al Salam Bank. (2022). Al Salam Bank Announces Financial Results for 2022. Retrieved 01 24, 2024, from BAHRAIN BOURSE: https://bahrainbourse.com/File%20Attachments/12022023123132/12022023123132_File1.pdf
- 4. Al Salam Bank. (2024). *Branch & ATM Locator*. Retrieved 01 24, 2024, from Al Salam Bank: https://www.alsalambank.com/en/Pages/Branch---ATM-Locator.aspx
- 5. Alali, S., & Teniou, K. (2022). Study the impact of financial culture in promoting financial inclusion. *Al- Mountada Journal for Economic Studies and Research*, *6*(2).
- 6. Alam, N., & Nazim Ali, S. (2021). *Fintech, Digital Currency and the Future of Islamic Finance*. Switzerland: Palgarve Macmillan.
- 7. Boumod, I., Mutrif, A., & Shawi, S. (2020). Financial technology innovations and their role in developing Arab Islamic banks. *Economic Visions Journal*, *10*(1).
- 8. Bouri, S., & Birahimi, A. (2023). Financial technology as a mechanism for implementing and enhancing financial inclusion: a field study on a sample of clients of the National Bank of Algeria (BNA). *Al-Bashaer Economic Journal*, 9(1).
- 9. Boutalb, A., & Safari, A. (2023). Financial technology as a pillar for enhancing financial inclusion in the Arab region. *Journal of Finance, Investment and Sustainable Development, 8*(1).
- 10. Falaq, S. (2021). Activating the Islamic financial industry as an entry point to enhancing financial inclusion in Algeria. *Al- Mayar Journal, 12*(01).
- 11. Falaq, S., & Sharfi, S. (2020). The role of the financial technology industry in promoting financial inclusion Bahrain's experience -. *Journal of Social Sciences and Humanities*, *21*(01).
- 12. Farhoul, M. (2023). The reality of financial inclusion through the possibility of electronic payment in Algeria. *Shuaa Journal of Economic Studies*, 07(02).
- 13. Haji, A. (2023). The role of the Central Bank and commercial banks in supporting the pace of financial inclusion a study of some Arab experiences -. *Journal of Economics and Management Research*, 04(01).



- 14. Khalifa, A.-A., & Al-Obaidi, A. (2018). The problem of financing banking services in Islamic banks. *Journal of Administrative and Financial Sciences*, 02(02).
- 15. Lafifi, D., & Boghazi, W. (2023). The contribution of Islamic banks to enhancing financial inclusion: The case of Jordanian Islamic banks for the period (2014-2020). *Journal of Economics and Business Administration*, 07(01).
- 16. Manasiriyah, K. (2022). Financial technology in light of the Corona pandemic: opportunities and challenges. *Academy Journal for Social and Human Studies*, *6*(02).
- 17. Nicoletti, B. (2017). *The Future of Fintech Integrating Finance and Technology in Financial service*. London: Palgrave Macmillan Cham.
- 18. Ousyaf, A. Y., & Shawi, S. (2021). Financial inclusion as a strategy to rehabilitate the Algerian banking system: reality and obstacles. *Communication Journal*, 27(العدد خاص).
- 19. Qamish, K. (2023). The development of financial technology and its role in enhancing financial inclusion India case study -. *Journal of Economics and Mining Research*, 04(01).
- 20. Saigi, M. (2023). The role of financial technology in promoting digital financial inclusion a case study of the United Arab Emirates -. *Journal of Economics and Mining Research*, 4(2).
- 21. Salaheddine, A. (2022). Algeria's Crowdfunding Challenges and Prospects. *Revue Le Manage*, 09, pp. 393-426.
- 22. Sayihi, Y., & Ben Aqlama, Y. (2018). The role of financial technology in supporting the financial and banking services sector. *Al-Ijtihad Journal for Legal Studies and Economics*, 7(3).
- 23. Shaheen, M. (2017). *The role of Islamic banks in economic development* (Vol. 4 المجلد). Egypt: Dar Hamithra for Publishing and Distribution.
- 24. Yasmina, Q., & Bashkir, A. (2023). The reality of financial inclusion in Islamic expenses an analytical study for a group of Arab countries -. *Journal of Economics and Management Research*, 04(01).
- 25. Zawawid, L., & Hajjaj, N. (2018). Financial technology the financial payment revolution reality and prospects. *Al-Ijtihad Journal*, 7(03).
- 26. Zaykh, M. A., & Younesi, M. (2022). The role of financial technology in enhancing inclusion in the Arab world the experience of the Kingdom of Saudi Arabia -. *Scientific research notebook Journal*, *10*(01).

