Economics and Management
ISSN: 2683-1325
Volume: XXI, Issue: 1, Year: 2024, pp. 139-151
DOI: 10.37708/em.swu.v21i1.9

WAYS TO SUPPORT THE ISLAMIC FINANCIAL INDUSTRY THROUGH THE ADOPTION OF FINTECH

Habiba Moussouni [1]

Received: 20.11.2023, 202X, Accepted: 20.04.2024

Abstract

Based on the role of Islamic financial technology in advancing the Islamic financial, this study came with the aim of addressing the issue of financial technology in Arab Islamic banks, as this sector has constituted, during the past few years, a revolution in the field of global and Arab financial systems. Using a descriptive and analytical study of a sample of Arab countries to show the reality of the Islamic banking sector in light of contemporary digital financial applications through numbers, it has been shown that Financial technology development has an impact on a wide range of financial services and helps drive the expansion of both conventional and Islamic finance, reaching $3.7 trillion by 2022 compared to $3.44 trillion in 2021 and $3.14 trillion in 2020 the size of assets compatible with Islamic Sharia. Regarding sukuk, it has experienced remarkable growth in recent years, particularly following the global financial crisis of 2008, reaching approximately $1.42 trillion by the end of 2020 before increasing to $1.6 trillion in 2021,considered the highest value of global sukuk issuances (IFSB. 2022).

Keywords: *financial technology; Islamic financial; Islamic banks; Arab Islamic banks; Islamic Sharia;*
JEL Codes: O12

Introduction

The banking system is the main artery and the main engine of economic life. The degree of economic development of any country is measured by the level of development of the banking system and its ability to finance various development processes.

The existence of a sound and healthy banking system has become one of the urgent necessities that impose itself on any country, on the one hand, and on the other hand, it will create great and high confidence in the state’s economic and social policy and enable it to carry out its various tasks. However, the banking sector, locally and globally, is

[1]Lecturer, University Abu Baker Belkaid- Tlemcen, Algeria. ORCID ID: https://orcid.org/0009-0008-6642-8604, Email:moussouni.h13@gmail.com

facing many challenges. The strong points, variables, and factors that push it towards adopting the performance evaluation process with the aim of identifying weaknesses and deficiencies and trying to address and mitigate them, as well as identifying strengths and trying to enhance them, so that the banking sector can continue its activity and achieve the best retuns.

Among the financial institutions that make up the banking system, we find traditional (commercial) banks and Islamic banks, which represent the backbone of economic activity, and are among the external sources in financing the economy. The experiences and practices performed by them, i.e. accepting deposits from clients and granting loans against interest, as for Islamic banks, the positive role they play cannot be ignored. They provide various forms of financing and investment in various financial, economic and social activities in line with the principles of Islamic Sharia. They were able to impose themselves today to become a difficult figure in the composition of the financial and economic cycle in the world. The evidence for this is that since its inception, it has achieved great success and widespread as it crossed the borders of Islamic countries and established its presence in all parts of the world, and despite its recent existence compared to the experience of traditional banks, its annual numbers and shares of banking markets are constantly increasing, whether at the local level or in the market global banking in general. Based on the foregoing, the following problem can be posed:

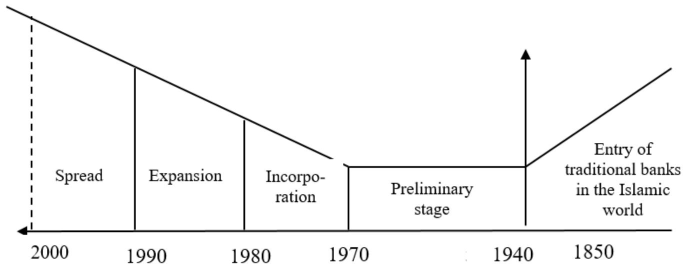
"What is the contribution of financial technology to the advancement of the Islamic banking sector in light of the rapid developments that the technological sector knows?"

To answer this question, we will divide our work into two axes: the first one: Islamic finance and the emergence of Islamic banks in the Arab world. The second one: financial technology and its relationship to Islamic financial services.

The First Axis: Islamic Finance and The Emergence of Islamic Banks in The Arab World.

The idea of the emergence of Islamic banks came in response to the society's desire to find a formula for banking dealing away from usurious dealings, as the results of the conferences of the Islamic Research Academy in Al-Azhar came to one opinion that "interest on all types of loans is forbidden". Based on this and on many studies and extensive research, it was necessary to establish a non-interest-based banking system (Obaid, 2019). The emergence and development of Islamic banks can be summarized in five stages as shown in the following figure.

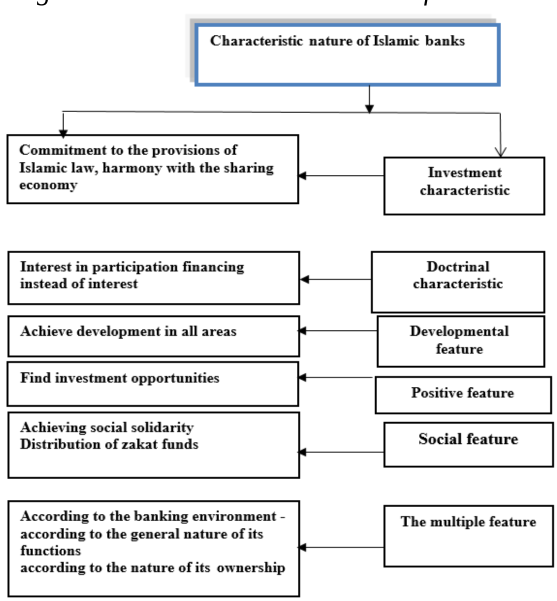
Figure no. 1 The stages of the emergence and development of Islamic banks



Source: Rami Youssef Obaid, The Impact of Islamic Financial Services on Financial Inclusion in Arab Countries, Arab Monetary Fund, United Arab Emirates, 2019, p. 04

The history of the emergence of Islamic financial institutions or Islamic banks goes back to 1940 in Malaysia, where interest-free savings funds were established. In 1950, the idea of adopting financing formulas that adhere to the provisions of Islamic Sharia was transferred to the state of Pakistan. But serious attempts in the modern era to establish banks that provide services and banking activities consistent with the provisions of Islamic Sharia began in 1963 until 1970 through the experience of local savings banks that appeared in Upper Egypt, Dakahlia city hail. Until it became widespread starting in the year 2000, especially after the last major global crisis in 2008.

Figure no. 2 The distinctive nature of Islamic bank



Source: Ben Mostafa for Basel 3 Standards, PhD thesis in Economic Sciences, Abu Bakr Belkaid University, (2017-2018), p. 10

Islamic finance has many institutions. There are Islamic banking and non-banking financial institutions, and there are also supporting financial institutions. Islamic banking is based on foundations and principles derived from the provisions of Islamic Sharia that differ from those principles on which the traditional banking system is based. The work of Islamic banks is distinguished from other banks in contributing to investments and sharing in profits and losses. Accordingly, they do not deal with interest or speculation. They also contribute to achieving social solidarity and distributing zakat funds. This is on the one hand, and on the other hand, Islamic banks do not finance projects other than morally or socially beneficial, such as financing a tobacco project of all kinds and alcohol.

Formulas of financing in Islamic banks.

Islamic banks witnessed a breakthrough: Renaissance and spread in various Islamic and non-Islamic countries of the world, where the latter worked on building their pillars and delving into various types of banking work that are compatible with the provisions of Islamic Sharia. An Islamic frame that agrees with procedure that far from debt and usury produced by traditional banks, where Islamic banks provide financing according to Islamic financing formulas.

Figure no. 3 Funding formulas in Islamic banks

Source: Created by researcher

There are several financing formulas and methods specific to Islamic banks, the most prominent of which we will summarize as:

1. Equity-Based Financing Forms:

- *Share*: It is a contract between two or more people to work for gain by means of money, business or prestige, so that the sheep will be fined between them according to the agreement (Mahdawi, 2016, p. 32) .

- Speculation: It is an agreement between two parties in which one of them exchanges his money and the other exchanges his effort and activity, provided that the profit between them is according to what they stipulate (Khadija, 2017, p. 75).

- *Farming*: It is a partnership between two parties, one of whom has fixed capital represented in the land and may present with it a circulating asset such as seeds, and the second exerts effort and work on the planted, provided that they share a common part of the resulting crop.

- *Musaqat:* It is a person taking care of another person's land planted with trees or plants in exchange for a share of the fruit or plants as agreed upon. (Hachan, 2019)

2. Debt-based financing formulas:

✓ *Murabaha*: It is one of the trust sales in Islamic law, where the sale price is determined based on the cost of the commodity plus a profit agreed upon between the seller and the buyer. (Bin-Mustafa, 2016)

✓ *Istisna'a:* It is a contract concluded by a manufacturer, whereby it undertakes to manufacture a commodity according to certain conditions imposed by the Islamic bank, and when the deadline comes, the manufacturer presents his product "accepted by the bank if the required conditions are met," after which the bank sells it as a "locally manufactured" special commodity, with interest. The bank is the amount in excess of the total cost of the commodity, which is determined by the bank itself. The "made" good is prepared according to demand: buildings, machines, or devices, consumer or production goods...and so on. (Hammadi, 2016, p. 64)

✓ *Salam*: It is called immediate sale, present price for the goods, in which the bank obtains the price of the goods from the customer and it is delivered at a later date. (Zaytouni, 2018)

✓ *Lease sale*: It is an unconventional financing method where Islamic banks together with the recipient of the financing purchase the equipment required for the projects, for example, for the bank to lease it to the beneficiary for a period of time and under specific conditions. Final purchase. (Issawi, 2014)

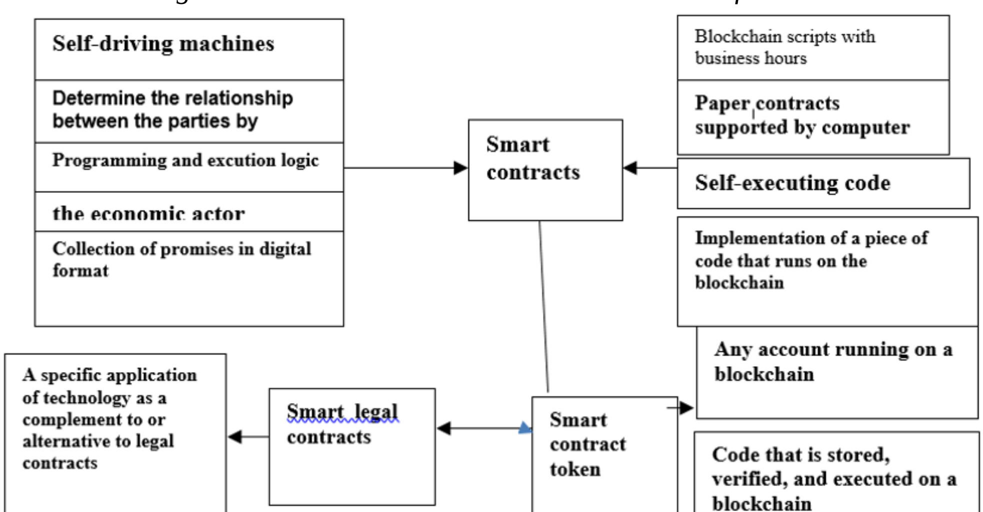
✓ *Sale in installments:* It is called sale for a specified period, and it means delivery of the appraiser and delaying the price, which is based on enabling the buyer to possess the commodity and benefit from it, provided that he pays its agreed value in specific installments over a certain period of time, then the seller always becomes the buyer at the sale price (Houhou, 2017).

3.Technologies used in financial technology:

Cryptocurrencies: The encrypted currency is a virtual unit of dealing, which exists in an encrypted electronic form, and is characterized by the absence of a physical sup

- *Bitcoin*: Bitcoin is defined as a virtual currency based on cryptography in its issuance and circulation, decentralized, and not backed by the government or any other legal entity, and cannot be exchanged for gold or any other commodity.
- *Wealthtech*: Wealth Technology brings the words “wealth” and “technology” together to create a new generation of fintech companies creating digital solutions to transform the investment and asset management industry. Wealthtech has changed how advisors and consumers interact.
- *Insurance Technology*: According to a report prepared by (KMPG), insurance technology is: “Emerging insurance companies are creating new ways and technologies for underwriting”.
- *Cloud computing*: It is simply the use of the Internet to provide computer services, and it is called the cloud because the cloud is the symbol of the Internet.

Figure no. 4 Smart contracts and their various definitions



Source: Pedro J. Bustamante, et all (2019), “A Collaborative Enforcement Mechanism for Spectrum Sharing Using Blockchain and Smart Contracts: An application for the 1695-1710MHz band, p.8

Digital and technical development is one of the most important pillars of the future of the financial and banking sector, as banking transactions are carried out through electronic applications and smart solutions. Financial technologies (FinTech) have a high potential to change the structure and procedures of traditional financial services, except at the level of the banking sector or the financial sector in general.

The Second Axis: Financial Technology and its Relationship to Islamic Financial Services.

1. Basic concepts about financial technology

The term financial technology in its current sense appeared after the global crisis of 2008, and spread and became used globally, and refers to the use of modern technologies in the provision of financial services, as well as the entry of start-up companies that are not specialized in providing these services.

2. Definition of financial technology (financial technology)

It has been defined by the Basel Committee on Banking Supervision as any financial technology and innovation that results in a new business model or product that affects financial markets and institutions (Harfouche, 2019). The FSB also defined financial technology as: “financial innovations using technology that can create new business models, applications, processes or products, and have a material and tangible impact on financial markets and institutions, and on the provision of financial services.” (union of Arab Banks, 2018)

From it, financial technology can be defined as the use of the latest technologies and technological innovations in the provision of financial services, whether by traditional banks or from emerging companies, which raises the efficiency and quality of financial service and reduces its cost with speed and access to larger segments of society (Stanoevska et.al., 2023).

The banking service is characterized as intangible and can only be evaluated after its consumption. There are wide differences between traditional banking services and digital banking services. The latter is characterized by rapid development in various countries of the world and has become the presence of global centers, and even the investments are very active and billions of dollars have been pumped.

Table no.1 - Islamic Fintech Startups

Main activity	**Country**	**The name of the Islamic financial technology company**	**Number**
Real estate investment in accordance with the provisions of Islamic law Crowdfunding platform.	Indonesia	Invesproperti،id	1
First Islamic Crowdfunding Platform Investment property.	Singapore	Ethis	2
An Islamic crowdfunding platform focused on small and medium enterprises.	Singapore	KapitalBoost	3
First equity crowdfunding platform in Malaysia.	Malaysia	ATA Plus	4
Big data and analytics using artificial intelligence for Islamic banks.	Malaysia	MyFinB	5
Sharia-compliant online peer-to-peer lending platform via.	Pakistan	InvoiceWakalah	6

Source: Rashedul HasanM،,Kabir H,SirajoAl,(2020), Fintech and Islamic Finance: Literature Review and Research Agenda, p13.

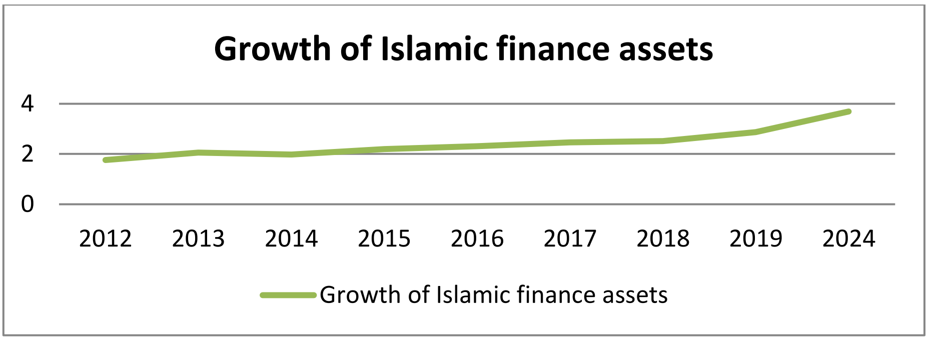
We note that there are several start-up companies that provide different digital or technological services with economic and social goals that are compatible with Islamic Sharia. Islamic finance offers many banking solutions that suit the needs of various projects. According to the "IFN FinTech report for the year 2020, which is a global network that represents the Islamic part of the financial technology industry, Islamic financial technology institutions are growing at a high pace with 142 companies around the world, and the United Kingdom comes at the foirst place. The United States has 27 companies, then Malaysia has 19 startups, followed by the UAE with 15 companies, Indonesia with 13 companies, and finally Saudi Arabia and the United States with 9 companies.

3.The concept of Islamic financial technology.

It is defined as the collection of applications from financial technology products that are compatible with Islamic law and are approved in Islamic financial and banking institutions (Mustafa, 2020). As a result, it can be said that Islamic financial technology is all financial technology innovations that are compatible with Sharia, and are used in Islamic financial services.

The total assets of Islamic banks operating in Arab countries by the end of 2017 amounted to about $603 billion, which represents about 20 percent of the total Arab banking assets. The ratio of the assets of the Islamic banking sector to the gross domestic product reached about 25 percent at the end of 2017. The size of the assets of Islamic banks operating in the Gulf Cooperation Council countries reached about 542 billion dollars at the end of 2017. That is, it constituted 90% of the total assets of Arab Islamic banks.

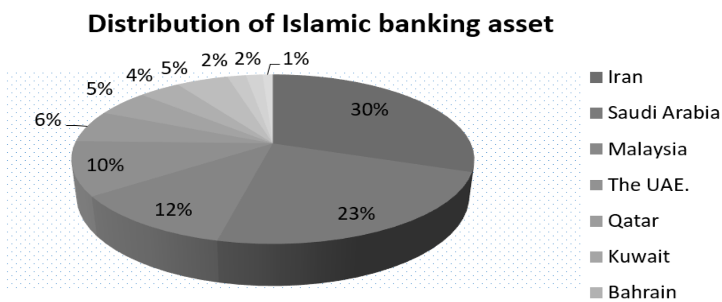
Figure no. 5 Growth of Islamic finance assets (in billion US dollars) between 2012-2024



Source: ICD REFINITIV 2020

Islamic banks are witnessing an increasing growth in the proportion of Islamic financial assets during the period 2012-2024, where they recorded 1.761 trillion US dollars, rising to 3.693 trillion US dollars in 2024.

Figure no. 6 Relative distribution of Islamic banking assets in various countries of the world in 2017



Source: World Bank Group 2017

The previous figure shows that there is a large concentration of banking assets in the countries of the world, with the Arab countries owning 50% of them. Iran is at the forefront of these countries with a percentage of 30.4%, followed by Saudi Arabia with 23.4%, and reaching Pakistan with the lowest percentage of 1.0%. These percentages indicate the expansion of confidence in The Islamic banking industry at the level of all parts of the world.

4.The difference between fintech and Islamic fintech

Both fintech and Islamic fintech share a similar definition, but the main point is that Islamic law (Islamic law, specifically the branch that deals with transactions in the economy) must be taken into account in the latter. For example, fintech is permissible and acceptable in Islam, and is not permitted. unless there is clear evidence that it contravenes the basic rules of Sharia. It should only be used if there is clear evidence that it contradicts the basic rules of Sharia, and it should be noted that from an Islamic perspective any commercial activities, including financial technology, are permitted, unless there is a clear text prohibiting it.

The main types of services offered in Islamic Fintech are:

Peer-to-peer (P2P) lending, crowdfunding, money transfer, mobile payments and trading platforms.

For example, the areas of application of Islamic financial technology in financial services can be listed as:

Table no. 2 - Application areas of Islamic financial technology in financial services

Islamic financial technology	**Islamic financial services**	**financial services**
AmalPay (Malasyia	Investment accounts Payment and collection operations and liquidity management in accordance with the principles of Islamic Sharia	Deposits
-Ethis Crowd – Singapore, Indonesia, Malaysia, Australia - Blossom Finance	Financing by Murabaha/Mudaraba / Musharaka/ Salam / Istisna / Ijarah and Islamic Finance	Financing

Source: World Bank Group 2020, p.24

In order to keep pace with financial technological developments, the establishment of the first Islamic Financial Technology Union was announced on December 13, 2017, as part of the activities of the 24th session of the World Islamic Banking Conference, by the three largest Islamic banks (Al Baraka Banking Group, Kuwait Finance House Bahrain, and Bahrain Development Bank). This union was known as Alco Bahrain (Algo Bahrain).

The Islamic Financial Technology Consortium, ALCO Bahrain, aims to achieve the following goals:

a. Finding innovative banking solutions that are compatible with the provisions of Islamic Sharia. Innovate and implement low-cost and rapid financial technology solutions, as it enjoys full strategic, operational and financial independence to innovate financial solutions that suit the digital economic system.

b. Restoring the growth of global Islamic banking by enhancing financial inclusion, creating new job opportunities, and directing new investments to critical economic sectors in finding innovative banking solutions that are compatible with the provisions of Islamic Sharia.

c. Innovate and implement low-cost and rapid financial technology solutions, as it enjoys full strategic, operational and financial independence to innovate financial solutions that suit the digital economic system.

d. Restoring the growth of global Islamic banking by enhancing financial inclusion, creating new job opportunities, and directing new investments to critical economic sectors in the GCC countries and emerging markets.

e. Reducing the cost of innovation for banks while accelerating their ability to market, which will have a direct impact on improving the profitability and growth of banks in the GCC countries and emerging markets.

f. Reducing the cost of innovation for banks while accelerating their ability to market, which will have a direct impact on improving the profitability and growth of banks.

g. Introducing 15 financial technology platforms in the banking sector until the year 2020, and helping achieve this goal is the joint force based on knowledge of the market, customer base and financial resources, as the union is concerned with innovation for social impact.

h. Create a convenient and fun crowdfunding platform for businesses that will boost the growth of the SME sector.

i. Providing an opportunity to invest outside borders.

Fintech innovations in the GCC countries have the potential to significantly enhance market access and profitability of banks. As a starting point, participatory banks can implement a bold funding management strategy that includes advanced data analytics, robotic process automation, cloud technologies, artificial intelligence and blockchain technology.

Conclusion

According to the World Financial Development Report for 2017, the percentage of the adult population who own bank accounts in 25 countries out of 48 member states of the Organization of Islamic Cooperation (OIC) is less than 20%, and the reason for this is the voluntary exclusion of Muslims from interest-based financial services. In this case, adopting financial technology in the field of Islamic finance to enhance financial inclusion represents a major challenge.

Through the foregoing, it is clear to us that financial technology has a great ability to provide tremendous opportunities to bring about a digital transformation in various financial services, which has greatly helped to develop and modernize these financial services, which have become a competition for financial services provided by traditional financial institutions, at the lowest cost, efficiency and speed. In addition, this transformation has become a necessity for countries after it was an option for them in light of the outbreak of the Covid 19 virus, which resulted in the global economy stopping due to health measures such as closure and social distancing.

As both traditional financial institutions and fintech startups face regulatory challenges in capital requirements, anti-money laundering, privacy and security laws, and with regulatory changes lagging innovation in the industry, fintech companies need to be more alert to potential changes and find ways to deal with these changes (Bogdanova, 2022). The regulatory and supervisory authorities should take these issues and challenges into consideration in order to support the development of a strong and sustainable system.

We conclude from the above that according to the Global Competitiveness of Islamic Banks Report (2016), the number of Islamic banking clients around the world has approached 100 clients. However, 75.12% of the potential client base for Islamic finance is still untapped, and the sector still has a large capacity that can accommodate More Arab and international customers, as soon as the Islamic banking sector is able to face the challenges that stand in the way, which can be divided into internal and external challenges.

It now meets many needs and provides services in the financial field in advanced ways that largely compete with traditional financial services in terms of speed and cost. It was concluded through this study that Islamic banks' adoption of Islamic financial technology may currently be just an option, but the technological developments that have occurred in order to ensure continuity and development have made it imperative for Islamic banks to support the innovation of digital products, in line with Islamic law.

REFERENCES

Bogdanova, M. (2022). Globalisation and the impact of new technologies on the economy and the labor market. *Economics and management,19(2),21-26. DOI: 10.37708/em.swu.v19i2.3*

Bustamante, P., Gomez, M., Weiss, M., Znati, T., Das, D. & R. Stephanie. (2019). A Collaborative Enforcement Mechanism for Spectrum Sharing Using Blockchain and Smart Contracts: An Application for the 1695-1710MHz Band. TPRC47: The 47th Research Conference on Communication, *Information and Internet Policy*, http://dx.doi.org/10.2139/ssrn.3427469, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3427469

Hachan, A. H. K.(2019). General Provisions for Islamic Banks. *Journal of the Legal and Political Research and Studies Department-Information of Constitutional Institutions and Political Systems,* Issue 6, p. 103, https://www.asjp.cerist.dz/en/article/132148

Hasan, R., Hassan, M. K. & Aliyu, S. (2020). Fintech, Blockchain and Islamic Finance: Literature Reviewand Research Agenda. *International Journal of Islamic Economics and Finance*, 3(1), 75-94. DOI: https://doi.org/10.18196/ijief.2122

Hammadi, M. (2016). The Islamic Banking System in the Face of Global Financial Crises, -Challenges and Prospects- Case Study, *Economic Sciences. Doctorate,* p 64-72. https://bibfac.univ-tlemcen.dz/bibcentrale/opac_css/index.php?lvl=author_see&id=27522

Harfouche, S. (2019). Financial technology is a promising industry in the Arab world. *Horizons Scientific Journal*, p.4. https://www.asjp.cerist.dz/en/article/96371

Houhou, F., I. S. (2017). Evaluating the Efficiency of Algerian Islamic Banks Using Financial Performance Indicators. *Journal of Economic and Financial Studies* , 10 (1), p. 266, https://www.asjp.cerist.dz/en/article/37113

Issawi, L. (2014). Islamic Banks: A Distinguished Financial Reality. *Journal of Communication in Economics, Administration and Law*, 38, p. 44. https://www.asjp.cerist.dz/en/article/41781

Khadija, S. (2017). The problem of applying the capital adequacy standard in banks according to the requirements of the Basel Committee - a case study. *Doctorate*, p75.

Mahdawi, H. (2015/2016). Islamic banking finance as an alternative solution to the global financial crises. *Thesis submitted for obtaining a Ph.D. in economic sciences*, p. 32.

Mustafa B, A.,Q. (2016). Islamic Banks and their Response to Basel 3 Standards: An Applied Study on the Countries of the Gulf Cooperation Council Saudi Arabia, *Kuwait, UAE - for t=he period 2013-2016*. Doctorate. p 50

Mustafa, R. & al (2020). FinTech, Blockchain and Islamic Finance: An Extensive Literature Review, *International Journal of Economics and Business Administration*, 2(7), pp. 65-86, https://www.researchgate.net/publication/339573432_FinTech_Blockchain_and_Islamic_Finance_An_Extensive_Literature_Review

Obaid, R. Y. (2019). The Impact of Islamic Financial Services on Financial Inclusion inArab Countries. *Arab Monetary Fund, United Arab Emirates*, p. 4. https://www.researchgate.net/publication/363173937_alshmwl_almaly_fy_aldwl_alrbyt_aljhwd_walsyasat_waltjarb

Stanoevska, E., A. Danevska, L. Sadiku, S. Dimitrieska. (2023). Development of fintech solutions in the macedonian banking sector. *Economics and management*, 20 (1), 78-105, DOI: 10.37708/em.swu.v20i1.6

Union of Arab Banks. (2018). Financial technology and artificial intelligence in the financial and banking sectors, *Journal of the Union (454), p. 1*-8. https://uabonline.org/ar

Zaytouni, K.M. (2018). Financial transactions in Bank: A Comparative study between Islamic Banks and commercial banks. *Al-lhya Journal*, 11, p.243.