



THE ROLE OF ISLAMIC FINTECH IN ENHANCING DIGITAL FINANCIAL INCLUSION: REALITY AND PROSPECTS

BEGHDAD BEY Ghali

University of Mustapha Stambouli,
Mascara, Algeria

beghdad.ghali@univ-mascara.dz

BOUKAHLA Hadja Khadidja*

University of Mustapha Stambouli,
Mascara, Algeria

hadja.boukahla@univ-mascara.dz

Send Article Date: 04-11-2025

Date of acceptance of the article: 14-12-2025

Abstract:

This study aims to highlight a crucial role of Islamic fintech in enhancing digital financial inclusion, by providing Shariah-compliant financial services accessible to underserved Muslim populations. Through tools such as mobile banking, blockchain, and peer-to-peer (P2P) financing, it provides ethical, interest-free, and accessible financial solutions for unbanked and underbanked populations. Additionally, digital zakat, waqf, and crowdfunding initiatives contribute to reduce poverty.

The study concluded that Islamic financial technology is growing and expanding significantly as an indispensable economic necessity. However, the field of using Islamic financial technology still needs to overcome many challenges that hinder its expansion globally.

Key words: FinTech, Islamic fintech, digital financial inclusion, startup, digitization.

Introduction:

In recent years, the emergence and integration of financial technology (fintech) into the financial sector have revolutionized the financial industry and transformed traditional banking frameworks. has brought forth innovative digital solutions capable of overcoming geographic and accessibility barriers, and boosting efficiency, transparency thereby enhancing digital financial inclusion. New products, services, and behaviors emerged as a result of digitization, resulting in new customers

* BOUKAHLA Hadja Khadidja.



and innovative business ideas worldwide. As financial services accelerate, it is time for the Islamic financial industry to take center stage. While many regions in developing countries are still unbanked and underbanked, despite novel advances in analytical tools and the proliferation of digital financial activities supported by the rise of smartphone usage

Digital financial inclusion has become a critical component of global economic and social development agendas, and a vital enabler in reducing inequality and poverty. aiming to provide those underserved or marginalized individuals and communities with access to essential financial services. However, many people, especially in developing countries and Islamic communities, remain excluded from traditional financial systems due to religious, economic, and infrastructural barriers. Islamic finance, grounded in Shariah principles that prohibit interest (riba) and promote ethical finance, has gained increasing interest worldwide. The advent of financial technology (fintech).

Islamic fintech emerges as a fusion of Islamic finance principles with advanced technology, offering compliant and innovative financial services that aligns with Islamic principles and value, particularly in the context of promoting ethical financial practices and inclusivity.

As digital financial inclusion becomes increasingly important in today's rapidly evolving financial landscape, Islamic fintech offers innovative solutions to address the unique needs of the Muslim population and other communities seeking ethical financing options.

Study Problem:

In light of the preceding, the following problem comes up

How Islamic fintech can enhance digital financial inclusion and facilitate access to Islamic financial services?

This issue includes the following sub-questions:

- How is technology used in Islamic finance to develop its services?
- What is mean digital financial inclusion?

- What are the mechanisms that enable Islamic fintech to enhance digital financial inclusion and access Islamic financial services to the disadvantaged group?

Study hypotheses:

In light of the main question and sub-questions, the following hypotheses can be formulated :

- The inability of Islamic fintech to reach the largest segment of the Islamic community.
- Technological advancement in the Islamic context has contributed to the development of Islamic financial services.
- Islamic fintech plays an active role in promoting digital financial inclusion.

Study objectives:

The purpose of this study is to accomplish a series of goals, which include:

- Identifying the nature of Islamic fintech and highlighting its landscape in the Islamic financial arena;
- Highlighting the basic rules for the success of Islamic financial technology in spreading financial services on a large scale.

Research methodology:

In our study, we relied on the descriptive approach to present various theoretical aspects related to Islamic fintech and digital financial inclusion, and the analytical approach to study and analyze how to promote digital financial inclusion through Islamic fintech,

SECTION I: FINTECH AND ITS APPLICATIONS IN ISLAMIC FINANCE

The Islamic fintech framework is a blend of advanced technology and Islamic ethical finance principles aimed at creating inclusive, transparent, and compliant digital financial ecosystems suitable for today's global market.

Through this axis, we aim to study the conceptual aspect of Islamic fintech, principles of Islamic sharia, financial services.



We also touch on financial services provided by Islamic fintech, drivers, opportunities and challenges of Is Fintech, finally its landscape in the worldwide.

Requirement 1: A Conceptual Framework for Islamic FinTech

Advances in technology have transformed the nature of customer interactions within the banking sector, fostering more direct and efficient communication. Both conventional financial institutions and Islamic Financial Institutions (IFIs) actively embrace the latest technologies to streamline their operations and improve interactions with customers. In this requirement will be defined. Fintech, Islamic Fintech, Principles of Islamic sharia and is fintech services.

1: Concept of Financial Technology

There are several definitions of FinTech. According to (Saad & Fisol, November 2019):

- “Financial technology” or “FinTech” refers to technology-enabled financial solutions. The term FinTech is not confined to specific sectors (e.g. financing) or business models (e.g. peer-to-peer (P2P) lending), but instead covers the entire scope of services and products traditionally provided by the financial services industry. (Arner, DW; Barberis, JN; Buckley, RP2015).
- Organizations combining innovative business models and technology to enable, enhance and disrupt financial services (Ernst&Young, 2016).

There are other definitions of Fintech:

- Financial technology (FinTech) refers to the application of technology – software, algorithms and hardware- to traditional financial services to save time, optimize cost and enhance efficiency and user experience (Marjan, 2023;P11).
- definition given by the Financial Stability Board (FSB) and adopted by the Basel Committee on Banking Supervision defines fintech as " Technology-enabled financial innovation

that could lead to new business models, applications, processes, or products with a material effect on financial markets and institutions, and the provision of financial services." (FSB, 2024).

- Fintech is the integration of technology into the financial sector, which has led to modern financial technologies like cryptocurrencies, regulatory technology, crowdfunding, peer-to-peer lending, etc..

2: General overview of Islamic Fintech

2.1 Definition of Islamic Fintech:

There several definitions of Islamic Fintech, we can address a few of them:

- Islamic Fintech appears as one of emerging issues in Islamic finance, and wraps up shariah compliance and regulatory aspects, and it's recently seen as a significant element that will make a big change in contents of Islamic financial services. (Benalkama, 2022)
- Islamic fintech refers to the use of technology to deliver financial services and solutions that comply with the shariah principles and requirements, promote the well-being of mankind, and integrate ethical elements to attain fairness and justice (Marjan, 2023;P11).
- Technologically enabled financial innovation that results in new business models, applications, processes, or products within the financial services industry, while ensuring complete adherence to the principles of Shariah (Islamic law).

2.2 The principles of Shariah (Islamic law): There are five fundamental principles on which Islamic finance is based, as stated in the Holy Qur'an and the Noble Hadiths." :

- **Prohibition of Riba (No Interest):** Transactions must not involve the payment or charging of interest. There are many



Verses in the Holy Quran on this subject, This noble verse indicates this:

﴿الَّذِينَ يَأْكُلُونَ الرِّبَا لَا يَقُومُونَ إِلَّا كَمَا يَقُومُ الَّذِي يَتَخَبَّطُهُ الشَّيْطَانُ مِنَ الْمَسِّ ذَلِكَ بِأَنَّهُمْ قَالُوا إِنَّمَا الْبَيْعُ مِثْلُ الرِّبَا وَأَحَلَّ اللَّهُ الْبَيْعَ وَحَرَّمَ الرِّبَا فَمَنْ جَاءَهُ مَوْعِظَةٌ مِنْ رَبِّهِ فَانْتَهَى فَلَهُ مَا سَلَفَ وَأَمْرُهُ إِلَى اللَّهِ وَمَنْ عَادَ فَأُولَئِكَ أَصْحَابُ النَّارِ هُمْ فِيهَا خَالِدُونَ﴾ [البقرة: 275].

- **Prohibition of Gharar(Excessive Uncertainty/Ambiguity)**

Aims to ensure fairness, transparency, clearly and mutual consent in financial transactions by avoiding contracts that are vague, speculative. We get this from the noble verse:

﴿يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَأْكُلُوا أَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ إِلَّا أَنْ تَكُونَ تِجَارَةً عَنْ تَرَاضٍ مِّنْكُمْ﴾ (سورة النساء، الآية 29).

- **Prohibition of Maysir (Gambling or Speculation):**

Financial transactions must be linked to a real underlying economic activity or tangible asset. Speculation or gambling for profit is forbidden. The noble verse provides an explanation for this:

﴿يَا أَيُّهَا الَّذِينَ آمَنُوا إِنَّمَا الْخَمْرُ وَالْمَيْسِرُ وَالْأَنْصَابُ وَالْأَزْلَامُ رِجْسٌ مِّنْ عَمَلِ الشَّيْطَانِ فَاجْتَنِبُوهُ لَعَلَّكُمْ تُفْلِحُونَ﴾ [سورة المائدة، الآية 90]

- **Ethical Investment:** Investments and financing must avoid Taking part in activities forbidden by Islam, like alcohol, gambling, pork and pornography.

- **Profit and Loss Sharing:** Islam advocates for capital investment through participation and sharing of profits and losses (PLS). Use of partnership (Musharakah) and profit-sharing (Mudarabah) models instead of interest-based lending.

2.3 Islamic Fintech services: The classification of Islamic fintech services is based on the following parameters (Marjan, 2023; P12):

2.3.1 Give and protect: Two types of services fall under the category of giving and protection: Social Finance and Insurance.

2.3.1.1 Social Finance: like zakat, waqf and sadaqah:

- **Zakat:** Zakat is an Islamic financial obligation that requires Muslims to give a portion of their wealth annually to Charitable causes based on a minimum threshold known as nisab. (Liberto, 2025). Nisab is the minimum wealth level necessary to qualify for zakat, set by the value of 87.48 grams of gold or 612.36 grams of silver- must give 2.5% of their wealth.
- **Waqf:** Waqf is a religious trust where the donated property is kept intact and its benefits are permanently used for the purposes specified by the donor. Waqf has boosted Islamic economies by reducing poverty, creating employment, and lowering government spending, and stimulates economic growth through enhanced production and consumption (Rehman, 2024.)
- **Sadaqah:** Unlike Zakat, sadaqah is voluntary and can be given at any time and in any amount. It is not limited to money.

2.3.1.2 Insurance:

- **InsureTech:** refers to technology-driven innovation in insurance to make it more efficient, personalized, and digitally accessible.
- **TakaTech:** The integration of technology into Takaful insurance services is a type of Islamic insurance in which members contribute money into a pool system to guarantee each other against loss or damage.

2.3.1.3 Save & invest: Fintech offers two services that focus on savings and investments: Wealth management, deposit & lending.

- **Wealth management:** A variety of services can be found in this field: Robo-Advisory; Personal Financial Management (PFM); Pension; Asset Management.
- **Deposit and Lending:** A variety of services can be found in this field, like: Challenger Banking; open Banking; Mortgage; Personal Finance and Student Finance.
- **Challenger Banking:** are small, innovative retail banks



that compete directly with Traditional banks, often by focusing on underserved segments or leveraging digital technology to reduce costs and improve customer experience.

▪ **Open Banking:** is a financial services framework based on blockchain technology that allows consumers to securely share their financial data with third-party providers through APIs, enabling innovative and personalized financial services.

2.3.1.4 Finance: Many services can be provided by Fintech in this regard, the most significant being:

- **Peer-to-Peer Finance (P2P):** P2P lending connects borrowers and lenders in a highly profitable way, eliminating the need for intermediaries. Borrowers can obtain financing from a variety of people. Compared to traditional banks, the process of obtaining a loan is much easier. P2P is a technology-based service that connects businesses directly with investors, through a web-based platform for a fee (DinarStandard, 2018 ;P11).

- **Crowdfunding:** Crowdfunding is a way of raising money to finance projects and businesses. It enables fundraisers to collect money from a large number of people via online platforms. Startup companies or growing businesses as a way of accessing alternative funds most often use it. It is an innovative way of sourcing funding for new projects, businesses or ideas.

They are platforms that raise money from the public to finance a specific project and are based on many types (equity-based, donation-based, reward-based, and loan-based);

- **Blockchain:** a blockchain is a mechanism based on encryption using a set of mathematical algorithms to create and verify an ever-growing data structure that takes the form of a series of "transaction blocks," to which data cannot be added, modified, or deleted except with the consent of all blocks (Natarajan, Solvej, & Helen, 2017). This technique can track and record data using a distributed digital ledger system, verifying and storing data across hundreds or thousands of computers globally (DinarStandard, 2018; P11)

Blockchain technology also allows checking compliance with legal and religious principles of money transfer. Islamic financial institutions are also involved in developing the issuance of similar smart sukuk based on blockchain technology to meet global demand for funds, it provide smart communication between a local finance company and a foreign bank, so that the foreign bank arranges blockchain for cross-border money exchange

(لمار و مجول، 2024، ص86)

- **Payments and Remittances:** The technology has been used in the field of payments and transfers through some financial applications and portals that contain mobile phones and Internet technologies in the background. Customers can use electronic cards, bitcoins and digital wallets to make purchases.
- **Islamic electronic platforms for exchanging digital currencies:** Due to the contradiction between digital currencies and digital financial and banking transactions with the principles of Islamic Sharia, as they are not a commodity in kind. Those in charge of Islamic finance thought about creating electronic platforms to exchange digital currencies that are compatible with the principles of Islamic law. "I-DINAR" was the first Islamic electronic platform for exchanging the gold-backed digital currency, which was given its launch signal on March 19, 2019, on the sidelines of the Fifth Islamic Finance Conference, whose activities were hosted by the city of Doha, under the slogan "Islamic Finance and the Digital World".

2.4 Islamic Fintech Drivers:

There is a set of drivers that propel Islamic financial technology, which are as follows (DinarStandard, 2018, P20):

2.4.1 Government initiatives: Government Enhance regulation and provide direct support; their initiatives have contributed greatly to the adoption and development of Islamic financial technology. Some of them have allocated significant sums of money to invest in them; for example, \$100 planned fund by DIFC (Dubai International Financial Center) to invest in fintech



start-ups. Bahrain and Malaysia have set up 'regulatory sandbox' for Fintech growth.

2.4.2 Consumers: Muslim consumers are younger, on average, than non-Muslims, and a large portion of the world's unbanked are Muslims. According to a Pew Research Center survey in 2011 of over 38,000 Muslims, 76.3% of Muslims consider religion 'very important'.

2.4.3 Startups: Islamic Fintech startups have represented the first line of response for providing innovative digital Islamic finance solutions, with a rapidly emerging ecosystem.

This table summarizes three important startups in the world:

TableN°1: Examples of startup builders

Countries	Organization	Description
Singapore	Islamic Fintech Alliance 	Islamic Fintech startups were launched in 2016. The IFT Alliance , to "facilitate the adoption of finance technology among Muslims".
Turkey	Al Baraka Bank 	Al Baraka Bank was founded in Istanbul in 1984 and started serving actively in 1985. It is the first participation (interest-free) bank in Turkey, and offers a wide range of financial services including profit and loss partnership accounts, consumer finance, credit cards with Islamic licenses,....etc.
UAE	Goodforce labs 	was a startup foundry/incubator based in Dubai, United Arab Emirates focused on building ethical economy startups with both strong financial and social impact.

Source: (DinarStandard, 2018, P20).

2.5 Islamic Fintech companies:

Salaam Gateway, in partnership with DinarStandard and Elipses, has released the "30 Notable FinTech's" as part of the Global Islamic Fintech Report 2024/25. These 30 notable Islamic fintech's are standout leaders in the industry, driving progress

through funding rounds, geographic expansion, consolidation, and innovation in the Islamic finance sector.

Some of them can be displayed in the following list:

Table N° 2: Islamic fintech Compagnie in some country

Compagnies	Countries	Sector	Description
 ABHI	Pakistan	Finance	ABHI established in 2021, is a Pakistani Fintech company offering suite of financial services, including earned wage access(EWA), payroll solutions, and SME financing (salaamgateway.com , 2025) .
 Hijra	Indonesia	Save & invest	Hijra formerly known as ALAMI, is a prominent Islamic fintech startup founded in 2018 and based in Indonesia. Transformed into P2P Platform in 2019. As of Decembre 2023, ALAMI has already disbursed over \$350 million to SMEs across Indonesia from more than 350000 users across their lending and banking platform.
 Du-it	Malaysia	Finance	Du-it is a Malaysia-based islamic fintech company founded in 2020, and has recently launched a crowdfunding campaign in collaboration with Ethis Malaysia, a leading global Islamic crowdfunding platform (Finextra , 2025). It is set to become the first B2B BNPL(buy Now, Pay later) platform in Malaysia and the first in the world operating in a Shariah-Compliant setting.
 Zoya.finance	United states	Save and Invest	Zoya is a mobile app that makes halal investing easy and accessible for Muslims worldwide. The company also has a B2B offering enabling businesses to access Zoya's proprietary shariah ratings through API and data licensing. Zoya. Finance was created in 2020.
 GFI Fintech LLC	Qatar	Give & protect	GFI Fintech LLC is a data tech company that specializes in behavioral analytic solutions that can be applied in various industries. It is Data tech company that specializes in analytics in finance & insurance ind. GFI Fintech LLC. This

Source: Authors' illustration

Requirement 2: Islamic Fintech landscape in the World:



Advances in technology have radically transformed Shariah-compliant financial services in the 20th century; their operations, business models, and customer interactions. The emergence of the COVID-19 pandemic has unexpectedly fueled the digital transformation and, consequently, the accelerated growth of the global Islamic Fintech ecosystem.

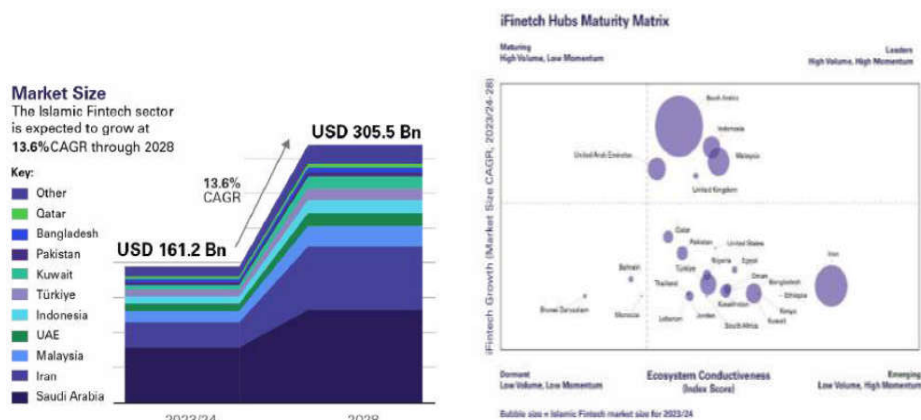
The Islamic Fintech sector is poised for continued expansion. Three trends in particular stand out (Kawsar, 2024/25 ; P5):

- **Scaling AI Applications:** Enhanced machine learning models in addition, AI agents will drive personalized banking, automated basic Shariah compliance.
- **Tokenization and Digital Assets:** This is exemplified by Capital DX has tokenized Shariah-compliant offerings for healthcare projects in Malaysia and potential expansions into other sectors.
- **Global Regulatory Harmonization:** a standardized framework for digital Islamic finance could emerge, reducing friction in cross-border transactions and fostering an integrated, ethical global financial ecosystem.

1: Evolution of global market size of Islamic Fintech transaction volume:

The Global Islamic Fintech Report 2024/25, produced by DinarStandard and Elipses, estimates the Islamic Fintech transaction volume at USD 161 billion in 2023/24. It is projected to grow to USD 306 billion by 2028, with a compound annual growth rate (CAGR) of 13.6%. This growth rate outpaces the overall global fintech industry's expected CAGR of 11.0% during the same period. The report also identifies the largest countries by estimated transaction volume. are Saudi Arabia, Iran, Malaysia, the United Arab Emirates, Indonesia and Türkiye. The number of Islamic FinTech's continues to grow despite these hurdles, with our database now including 490 firms globally (Shikoh, Basit, & Murphy, 2024/25); P4) see figure N°1.

Figure N°1: The development of the size of the global Islamic Fintech transactions market



Source: The Global Islamic Fintech Report 2024/25; P6

2: Islamic Fintech Maturity Matrix

Saudi Arabia, Indonesia, Malaysia, the UAE and the UK are Leader Hubs, but seeing their future growth rate slowing. Emerging jurisdictions show lower conduciveness to Islamic Fintech but display relatively high growth potential at the domestic level in market size.

Figure N°2. Shows the 6 largest OIC Fintech markets by transaction volume and assets subject to Islamic fintech management.

Figure N° 2: Top 6 Islamic Fintech Market Sizes 2023/24(USDBn)



Source: The Global Islamic Fintech Report; 2024/25; P8



3: Evolution of Islamic finance assets:

The global Islamic funds industry recorded moderate growth from the previous year, with total assets under management (AuM) increasing by 9.2% to USD 193.6 billion. This recovery follows a decline in 2023 and was largely supported by robust performance in global equity markets. Equities remained the largest asset class in Islamic fund portfolios, accounting for 37.5% of total AUM, followed by commodity (22.8%) and money market instruments (21.1%). The positive performance of these asset classes, particularly equities, was a key driver of the overall growth in Islamic fund assets (the Islamic Financial Services Board (IFSB, 2025;P 45).

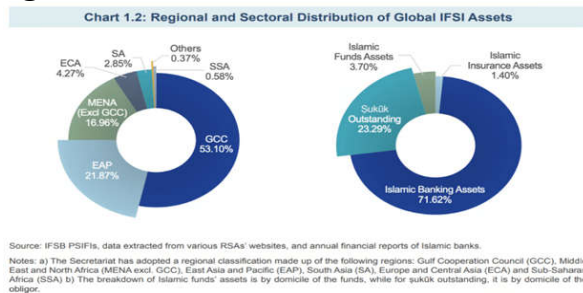
4: Distribution of global Islamic financial assets by Islamic financial technology products:

In 2024, the global Islamic financial services industry continued to expand, growing by 14.9% year-on-year (YoY) to reach US\$3.88 trillion in total assets, according to a new report by the Islamic Financial Services Board (IFSB) (the Islamic Financial Services Board (IFSB, 2025;P12):

- The Islamic banking sector has always remained the primary sector, accounting for approximately 70.21% of total Islamic financial assets in 2023, rising to 71.6% in 2024 by 17.05% marking a significant increase;
- Approximately 0.71% of the assets is contributed by Islamic insurance (Takaful) in 2023 and 1.40% in 2024;
- About 29.08% of Islamic financial assets is made up of sukuk (Islamic bonds) and Islamic funds together. Global sukuk issuances rose by a remarkable 25.6%, making it the fastest-growing segment in 2024;
- the Islamic funds industry also recorded growth, with total assets under management (AUM) increasing by 9.2%;
- The Gulf Cooperation Council (GCC) region has the highest number of global Islamic finance assets, with over 53.1%, while East Asia and Pacific have 1.9%, Middle East and North Africa (except GCC) hold 16.9%of the market, while other regions like

Europe, Central Asia, South Asia, and Sub-Saharan Africa hold smaller shares, but represent emerging growth frontiers.(see Fig5).

Figure N°3: Regional and sectoral Distribution of IFSI Assets in 2024

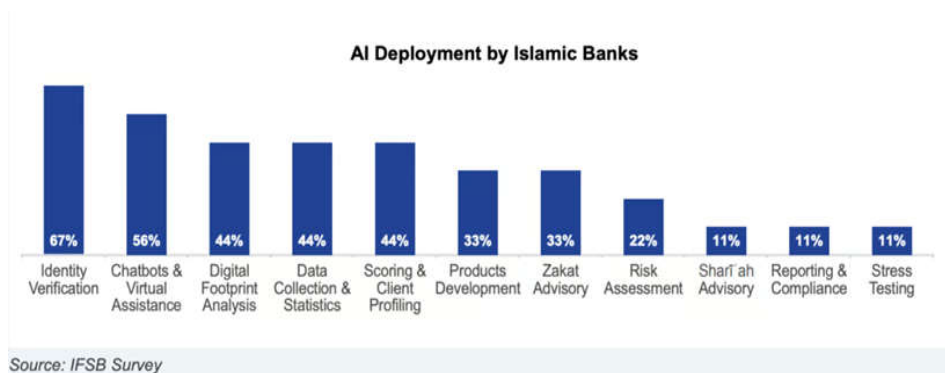


Source: IFSB, 2025, P13.

5: The rise of Islamic fintech:

Fintech is another trend that's driving structural shifts within Islamic finance, offering new avenues for growth, efficiency, and financial inclusion. For example, Islamic equity crowdfunding and P2P lending are becoming significant sources of financing through digital platforms, such as Bitcoin. The Islamic finance landscape is witnessing a rise in the popularity of cryptocurrency-related activities, which include trading, investments, and tokenization. Islamic finance is also embracing artificial intelligence (AI) as institutions increasingly use it.

Fig 5: AI Deployment by Islamic Banks



Source: IFSB, 2025, P20.



Section II: Digital Financial inclusion general Framework.

The term financial inclusion in general and digital financial inclusion in particular has aroused great interest from academics researching in the field of finance and professionals such as banking and non-banking financial institutions, governments, and international financial institutions.

Through this axis, we aim to study the conceptual aspect of digital financial inclusion, its components, drivers and index of digital financial inclusion, we conclude by the role of Islamic fintech to enhance it.

Requirement1: conceptual frame of digital financial inclusion

There are several definitions of financial inclusion and digital financial inclusion provided by researchers and international financial institutions. Additionally, digital financial inclusion consists of several elements, and there are various drivers that have contributed to its development

1: Definition of financial inclusion:

- **Financial inclusion:** means that individuals and businesses have access to useful and affordable financial products and services that meet their needs delivered in a responsible and sustainable way (European Central Bank , 2023; P3).

In this fig we summarize the definition of financial inclusion:

Fig N° 6: Getaway to financial inclusion



Source: drishtiias.com

2: Definition of digital financial inclusion:

- Refers broadly to the usage of digital financial services to advance financial inclusion. the deployment of digital means to reach the digitally financially excluded and underserved populations with such financial services (European Central Bank , 2023; P3).
- It is the digital access to and use of formal financial services, such as mobile phones (smartphones and non-smartphones) and computers (to access the Internet). This concept includes services provided by financial technology companies (Fintech) and financial institutions(41ص، 2022، بوكحلة) .

3: Essential components of digital financial inclusion:

The essential components which can create a favorable environment for the growth of access to digital finance, resulting in digital financial inclusion, are (1) digital platforms, (2) devices, (3) retail agents, and (4) additional financial services (Rahulani, 2022; P7)

3.1 digital platforms: Digital transactional platforms are essential components of digital financial inclusion, enabling customers to make or receive payments and transfers easily as well as store value electronically.

3.2 The customer interface: The customer interface in digital financial inclusion refers to the means through which customers access and interact with digital financial services.

3.3 Retail agents: They play a critical role in extending the reach of digital financial systems by overcoming barriers such as distance, lack of formal bank branches, and limited digital literacy.

3.4 Additional Financial services: is a broader range of offerings beyond basic transactions that are designed to meet the diverse financial needs of underserved populations. These services include credit, savings, insurance,...ect that are delivered through digital platforms, devices, and retail channels.

4: Drivers of digital financial inclusion:

The key drivers of digital financial inclusion are: (Rahulani, 2022; P9)



4.1 Technology and distribution networks: the growth in technology capabilities and availability-rapid growth in mobile connectivity, internet access, and well-functioning agent networks- have been the most significant drivers enabling large-scale adoption of digital financial services.

4.2 Policy and regulation: Coordinated efforts and promotion of Governments to create enabling regulatory environments that support innovation, interoperability, competition, consumer protection, and financial safety encourage broad adoption.

4.3 Open ecosystems: Collaboration between financial institutions and technology providers enhances the accessibility and efficiency of digital financial services.

4.4 Data: Utilizing digital data improves how financial risks are assessed and services tailored, enabling millions of underserved households in Kenya, Tanzania, Zambia, and Ghana to access credit.

4.5 Socioeconomic Factors: Demand and use are strongly influenced by literacy, trust in financial entities, and access to digital tools and internet connectivity.

4.6 Financial Sector Conditions: The impact of efficiency, competition, and the level of traditional financial services on how digital services fill gaps in access and usage is significant.

Requirement 2: The landscape of digital financial inclusion and the role of Islamic fintech in enhancing it

Examining the current state of digital financial inclusion (DFI) and the contribution of Islamic fintech is essential for policy formulation aimed at inclusive economic growth and financial stability. In this requirement we will get to the evolution of indicators of DFI and how can Is- Fintech enhance it.

1: digital financial inclusion indicators

Digital financial inclusion indicators are metrics that measure the degree of access to and usage of financial services provided through digital platforms.

1.1 Access Indicators: measured by:

- Number of bank branches and ATMs per population;

- Availability of mobile money accounts;
- Accessibility to the internet and mobile phones;
- Number of mobile money agents per population.

1.2 Usage Indicators:

- Account ownership rates (mobile money and bank accounts);
- Frequency of digital transactions (payments sent/received);
- Usage of online banking or mobile banking services

1.3 Composite Indexes:

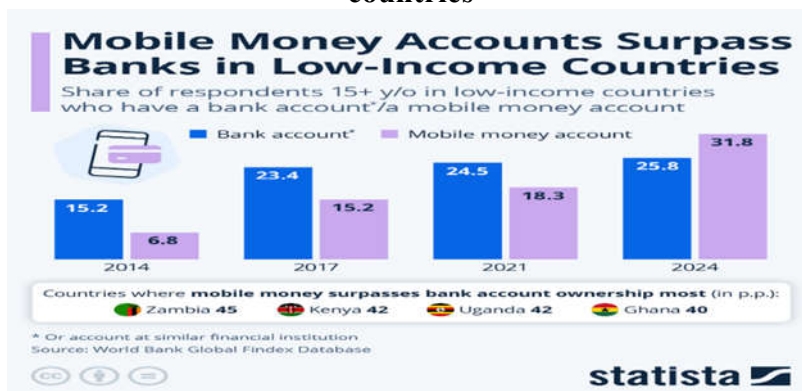
- Digital Financial Inclusion Index;
- Traditional Financial Inclusion Index;
- Comprehensive Financial Inclusion Index.

1.4 Data for some digital financial inclusion indicators:

1.4.1 Evolution of mobile money and bank accounts:

As of 2025, mobile money accounts have surpassed traditional bank accounts in many regions, particularly in low-income countries. Approximately 32% of adults in these areas have mobile money accounts, compared to 26% with bank accounts (see Fig N°7).

Fig N°7: Mobile Money Accounts surpass Bank in Low-income countries



Source: (Buchholz, 2025)

1.4.2 Data on digital transactions (payment sent/received):

Digital payments involving the likes of Apple Pay, PayPal, or Alipay are predicted to be the fastest growing payment method throughout the world. Despite such U.S. brands like PayPal, Apple Pay or Google Pay, the countries with the highest mobile



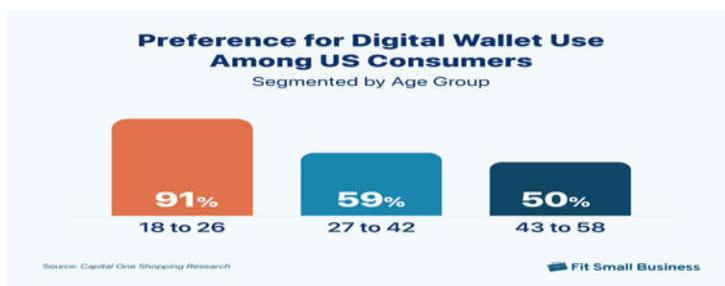
wallet adoption are located in Asia - not in Europe, or the United State.

In 2025, global digital payment transactions are projected to reach around \$13.91 trillion in volume, significantly up from \$9.46 trillion in 2023. The digital payments market is expanding rapidly, with a compound annual growth rate expected to be around 19% through 2033.

Key data on digital transactions (payments sent and received):
(Elad, 2025)

- Approximately 67% of adults globally are expected to use digital payments in 2025;
- Digital wallets are widely adopted, with over 5.5 billion users globally by the end of 2025;(see Fig 8)
- Major digital payment platforms processed huge volumes: PayPal with \$1.68 trillion, Visa \$14 trillion, Stripe \$1.4 trillion, Square \$500 billion, in payments during 2024-2025;
- Mobile payments now constitute roughly 30% of all e-commerce transactions globally in 2025;
- Global remittances via digital platforms reached around \$950 billion in 2025, with fee reductions averaging 12%;
- Peer-to-peer (P2P) payment apps like Venmo and Zelle are seeing annual growth rates of ~ 25% in 2025.

Fig N°8: Preference for Digital Wallet Use Among US Consumers



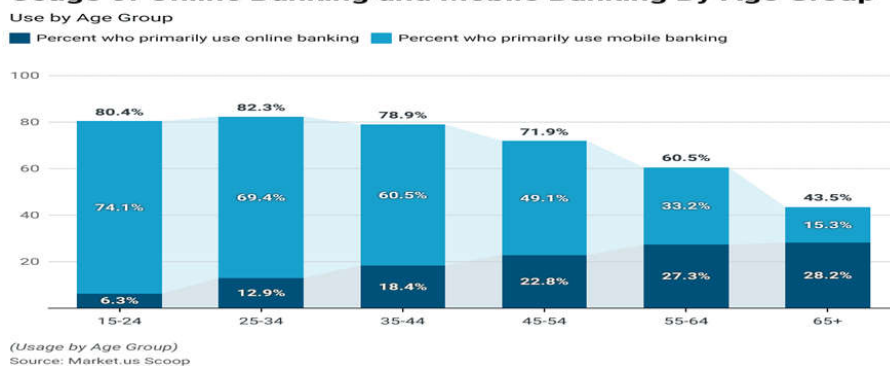
Source: (Elad, 2025).

1.4.3 Usage of online banking or mobile banking services:

In 2025, usage of mobile banking and online banking services shows distinctive trends by age:

Mobile banking is the dominant digital banking method, especially among younger users. For ages 15–24, 74.1% use mobile banking, compared to only 6.3% who use online banking. For ages 25–34, 69.4% favor mobile banking and 12.9% online banking. Nevertheless, usage of mobile banking declines with age but remains substantial: 60.5% for ages 35–44, 49.1% for 45–54, and 33.2% for 55–64, whereas older users (65+) prefer online banking (28.2%) to mobile (15.3%). (see Fig 9).

Fig N° 9: Usage of online or mobile banking services by Age group
Usage of Online Banking and Mobile Banking By Age Group



Source: (Burnett, 2025)

2: the role of Islamic fintech to enhance Digital financial inclusion

Islamic fintech is playing a powerful and transformative role in enhancing digital financial inclusion by combining Shariah-compliant financial principles with modern technology, especially in underserved communities.

There are several ways we can leverage modern innovations to enhance the delivery of financial services globally:

2.1 The Muslim digital generation Drive Digital Financial Inclusion:

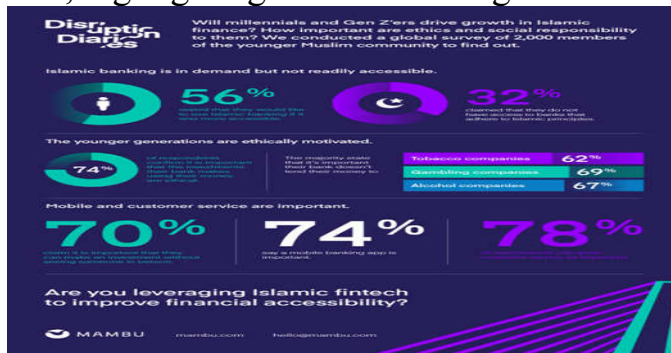
One of the Islamic fintech key drivers that enhances financial inclusion is the Young, digitally native Muslim demographic. The Muslim consumers are young and demand digital change. In



addition, 15 of the world's top 50 countries with smartphone penetration are Islamic countries. However, 72 per cent of organization of Islamic Cooperation (OIC) member countries population, which constitute the core Islamic finance market, are unbanked, in contrast to 49 per cent Worldwide. (Muneeza & Mustapha , 2021, P181).

The Muslim millennials and Gen Z are boosting digital financial inclusion by adopting faith-aligned digital financial services.

This tech-savvy, value-driven generation seeks Shariah-compliant, ethical, and transparent financial products via digital-first platforms, highlighting the need for digital Islamic banking.



Source :(<https://mambo.com>; 2021)

2.2 Shariah-Compliant Digital Platforms:

2.2.1 Crowdfunding platform for Muslim:

These platforms operate based on Islamic finance principles such as risk- and profit-sharing (e.g., murabaha, mudarabah), which excludes interest (riba) and unethical elements, fostering trust and acceptance among Muslim users who avoid conventional finance.

LaunchGood is an example of crowdfunding It is a donation-based crowdfunding platform from Saudi Arabia. Since its launch in October 2013, LaunchGood has raised over \$688 million from more than 2.1 million donors across 155 countries, funding over 35,000 campaigns. in 2025 a LaunchGood enhances digital financial inclusion by leveraging technology to enable Muslims worldwide to fund projects, support humanitarian

efforts, and foster community development in line with Islamic principles.

2.2.2 Islamic P2P financing:

P2P financing in Islamic fintech initiatives aimed at inclusion that will provide access and usage of finance for empowerment and social as well as economic development of people. (Muneeza & Mustapha, 2021; P182).

The P2P model has gained immense popularity worldwide, P2P lending market growing at a CAGR of 26.6% from 2024 to 2033. (see fig 10).

Figure N°: Peer to Peer lending Market size 2023to 2033(USDBillion)



Source: (haqq.network, 2024)

Islamic P2P lending enhances digital financial inclusion by using digital platforms to lower entry barriers, making financial services more accessible to underserved and remote populations without relying on physical banking infrastructure.

2.2.3 Blockchain Sukuk:

Sukuk is a major financial product of the Islamic capital market, with the emergence of Blockchain and linking it with the financial products and instruments, an invention was conceived known as Blockchain sukuk (Muneeza & Mustapha, 2021; P183).

Blossom Finance Blockchain: Based Sukuk, established in the US, Blossom Finance offers bitcoin-based Riba-free microfinance to the US Muslim community.

Blockchain-based Sukuk attracts more retail and small business investors compared to conventional Sukuk, due to tokenization



and fractional ownership. 60% of retail investors participate in blockchain Sukuk compared to just 30% in conventional Sukuk. Similarly, small business investors are more likely to invest in blockchain-based Sukuk (50%) than conventional Sukuk (20%). Institutional investors remain dominant in both markets but show higher participation in conventional Sukuk (85%) than blockchain Sukuk (70%), likely due to established investment frameworks (Ali, Mustafa, Shaikh, & Ullah, 2025; P62).

2.2.4 Other ways Islamic fintech promotes digital financial inclusion

Following are the Key fintech innovations:

- **Online Banking:** Also named Neobanks. These banks provide digital, Shariah-compliant financial services tailored for individuals that can be easily accessed on smartphones or computers. We expect a rise in the quantity of Islamic neobanks worldwide by 2025.
- **Online Payments:** Online payment allows quick and secure payment methods with the help of gadgets.
- **Robo-Advisors:** They are automated investment assistants that deliver financial guidance and management with minimal human intervention.

As the digital transformation of Islamic banks continues, fintech will be instrumental in reaching more people, offering solutions that are ethical, accessible, and inclusive-reshaping the future of online Islamic banking for millions worldwide.

Conclusion:

Islamic fintech refers to the integration of technology into financial services that comply with Islamic law (Sharia). This sector includes a range of products and services such as digital banking, like, crowdfunding platforms, peer-to-peer financing, Blockchain based Sukuk,.....ect; solutions that adhere to principles like profit-sharing and risk-sharing, avoiding interest (Riba) and unethical investments.

Digital financial inclusion refers to the use of digital technologies to provide individuals and businesses with access to affordable and convenient financial services. The goal of digital financial inclusion is to bridge gaps in access to financial resources, enabling more people to participate in the formal economy.

The main objectives of Islamic fintech are to enhance digital financial inclusion by providing Shariah-compliant alternatives to support underserved Muslim populations. It combines digital technology with Islamic finance principles to offer accessible, ethical, and interest-free financial solutions, thus attracting users who avoid conventional banking due to religious concerns.

the research concludes these following results and recommendations.

1. Results (Findings):

- Islamic fintech boosts efficiency and diversifies Shariah-compliant products, cutting costs while meeting evolving regional consumer needs;
- Islamic fintech significantly improves financial inclusion by expanding affordable, Shariah-compliant services to unbanked Muslim populations;
- Young, digitally native Muslim demographic, it is considered one of the key factors that promote digital financial inclusion, because the Muslim consumers are young and demand digital change;
- Islamic fintech is rapidly expanding worldwide due to increased online banking, AI use, and improved digital access,
- transparency, and inclusivity, setting the stage for significant future growth.

2. Recommendations:

- Develop a harmonized, Shariah-compliant regulatory and
- Legal framework across regions to support cross-border growth and scalability of Islamic fintech;
- Implement advanced digital Shariah oversight for rapid,



- credible validation, ensuring trustworthy Islamic fintech market expansion;
- Invest in technology infrastructure particularly in under-banked regions, to ensure reliable to fintech services;
- Promote digital financial Literacy to enhance user awareness moreover, understanding of Islamic fintech products;
- Develop scalable human capital initiatives addressing high market demand by integrating Islamic finance with digital technology expertise;
- Expand digital platforms for Islamic social finance tools like Zakat and waqf to integrate charity and community welfare into broader financial inclusion efforts.
- By implementing these recommendations, stakeholders can further enhance the role of Islamic fintech in promoting digital financial inclusion. Ultimately leading to greater economic equity and development.

Bibliography list:

1. Book Chapters

- Boukahla, A. Kh. (2022). The Role of Digital Financial Services in Expanding and Enhancing Digital Financial Inclusion in Algeria: The Post-COVID-19 Pandemic Period. In *The Book of the First National Virtual Forum "The Digital Economy in Algeria: Between Opportunities and Challenges"* (pp. 37-59). Mascara, Algeria: SME Research and Innovation Laboratory.
- Muneeza, A., & Mustapha, Z. (2021). "Islamic FinTech and Financial Inclusion." In M. M. Billah, *Islamic FinTech*. (Published by Springer Nature)

2. Journal Articles

- Ali, M., Mustafa, G., Shaikh, S., & Ullah, A. (2025). "Blockchain Technology and Its Impact on Sukuk Structuring in Islamic Finance." *Dialogue Social Science Review (DSSR)*.
- Benalkama, M. (2022). "The Islamic Fintech Ecosystem- Malaysian Experience-." *Journal of Economics and Human Development*.

- Marjan, M. (2023). "Islamic Fintech: Accelerating the Financial." *NOMURA JOURNAL OF ASIAN CAPITAL MARKETS*.
- Saad, M. A., & Fisol, W. M. (2019). "FINANCIAL TECHNOLOGY (FINTECH) SERVICES IN ISLAMIC FINANCIAL." *International Postgraduate Conference 2019*.

3. Reports

- DinarStandard. (2018). "ISLAMIC FINTECH REPORT : CURRENT LANDSCAPE & PATH FORWARD." (Industry Report)
- Financial Stability Board (FSB). (2024). "Financial Innovation and Structural Change / Financial Innovation." (Institutional Publication/Web Page)
- Kawsar, N. H. (2024/25). "Global Islamic Fintech Report." (Industry Report by DinarStandard and Elipses)
- Natarajan, H., Solvej, K., & Helen, G. (2017). "Publication: Distributed Ledger Technology and Blockchain." (World Bank Report)
- Rahulani, A. (2022). "Digital financial inclusion trends study." (Official Report by FSCA, South Africa)
- Reference: Medjoul, L., & Lemar, R. (2024, July 31). The Role of Financial Technology in Developing Islamic Financial Services – Reality and Challenges –. *Algerian Business Performance Review (ABPR)*, 13(1).
- Shikoh, R.-U., Basit, A., & Murphy, C. C. (2024/25). "Executive Summary of "Global Islamic Fintech report"." (Report Executive Summary)
- the Islamic Financial Services Board (IFSB). (2025). "Navigating Shallow Waters: Addressing Structural Vulnerabilities and Shoring Up Resilience to Global Shocks". (IFSB Stability Report)

4. Online Articles

- 8. European Central Bank. (2023). "Digital financial." (Institutional Web Page/Publication from ecb.europa)
- Buchholz, K. (2025). "Financial Inclusion:Low & Middle-Income Countries: Mobile Money Elevates Savings." (Online Chart/Statistical Article from Statista)



- Burnett, S. (2025). "Banking Statistics 2025: Global Trends, Digital Banking Rise, and Economic Impact." (Online Statistics/Article from coinlaw.io)
- Elad, B. (2025). "Digital Payment Infrastructure Statistics 2025: Rapid Surge Exposed." (Online Statistics/Article from coinlaw.io)
- haqq.network. (2024). "islamic-finance-framework-p2p-lending." (Blog Post/Online Article)
- Liberto, D. (2025). "Understanding Zakat: Rules, Obligations, and Benefits for Muslims." (Online Financial Article from Investopedia)
- Rehman, A. F. (2024). "ROLE OF WAQF IN SOCIO-ECONOMIC DEVELOPMENT." (Online Article/Forum Post from albaraka)