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# FINTECH IN ISLAMIC FINANCE

*Theory and Practice*

Edited by UMAR A. OSENI AND S. NAZIM ALI

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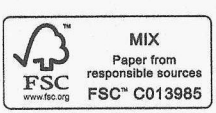


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# FINTECH AND ISLAMIC FINANCE

## Setting the Sharī'ah parameters

*Mohamad Akram Laldin and Hafas Furqani*

### Introduction

Fintech is a new way of finance by providing innovative products that would improve existing practices and facilitate consumers' experiences in transactions in an efficient and effective way. The application of fintech in Islamic finance is a welcome development but such fintech solutions must observe the principles and rules of the Sharī'ah. In principle, Sharī'ah allows any innovation in financial practices provided the practices observe the prohibitions such as interest (*riba*), gambling (*maysir*), uncertainty (*gharar*), harm (*darar*), cheating (*tadlis*), etc. Such solutions should also observe the rules in contract under the Sharī'ah, namely the pillars (*rukn*) and conditions (*shurut*). Above all, the fintech solutions should observe Islamic ethics in transactions, and aim at achieving the objectives of Sharī'ah.

This chapter aims at elaborating on the Shariah parameters for fintech solutions in Islamic finance. To achieve this objective, three major dimensions are taken into consideration, namely fintech and innovation in Islamic finance, Sharī'ah compliance and *maqāṣid al-Shariah* (objectives of Sharī'ah) realisation in fintech application.

### Sharī'ah and financial innovation

Finance is one of the important aspects in human life that help in fulfilling various needs as well as in enhancing the quality of life. Finance assists economic development by allocating funds within society from those who have extra funds to those who need the funds to fulfill their needs. In line with human progress and technological advancement, financial practices have evolved from simple transactions into complicated and sophisticated arrangements. Throughout the

history of mankind, financial innovations have attempted to assist human beings in their financial arrangement in an efficient and effective way. Financial innovations involve all aspects, from the design, development and implementation of innovative financial instruments and processes and the formulation of creative solutions to problems in finance (World Economic Forum, 2012).

Fintech is a new way in providing financial services. Fintech offers product innovation by structuring financial products that are new or significantly improved and enhanced with respect to their characteristics or intended uses. Hence, fintech is simply defined as the application of technology within the financial industry in a more friendly and efficient manner. Lately, the term fintech has been popularised in the financial industry and the widespread adoption of fintech in the industry covers a wide range of activities including financing, payments, operation and risk management, data security and monetisation and customer interface as well as other related areas.

Fintech has been adopted in the Islamic finance industry as a new way in delivering core Islamic finance solutions. Islamic law holds a principle that the basic rule in business transactions (*mu'amalah*) is permissibility (*ibahah*), except when there is a clear text which prohibits it. The permissibility principle provides a flexible room for innovation and new practices in business and financial transactions. All innovations in *mu'amalah* are considered permissible and are generally encouraged. Innovations only become impermissible if there is clear evidence that there is conflict with the fixed (*thawabit*) rules of Sharī'ah.

Sharī'ah is also very rich with the resources and methods that would encourage innovations in financial practices and guide them in proper direction, such as *usul al-fiqh* (the study and critical analysis of the origins, principles and sources of Islamic jurisprudence), *qawa'id al-fiqhiyyah* (the study of legal maxims that are used in Islamic law), *'ilm tarikh tashri'* (the study of the history of Islamic legislation), *falsafah al-tashri'* (the study of the philosophy of Islamic law and its legislation) and *'ilm maqāṣid al-Shari'ah* (the study of the meaning and objectives of Sharī'ah), which recently gained interest among scholars to respond to the changes and development in human civilisation.

Therefore, Islamic finance should be proactive rather than reactive to financial innovations. In the past four decades, the Islamic finance industry has been more reactive by following the advance development of conventional finance practices and simply adopting such market practices with some modification. Though not inherently wrong, the approach to replicate the conventional products in a Sharī'ah-compliance mould has been extensively done in structuring Sharī'ah-compliance products. The approach is described by Saeed (2004: 114) as pragmatic, whereby the concern is in innovating Sharī'ah-compliant product structure by changing the conventional product structure to follow the criteria and principles of the Sharī'ah.

The replication of conventional financial products and structures is done by adjusting the interpretation of financial principles in Islamic law to accommodate and provide the same types of services and investment mechanisms as the

dominant conventional financial system based on the needs of society. In practice, the approach is done in three general steps, namely, the negative screening of prohibited elements in conventional structure, applying Islamic principles/contracts in different types of conventional finance and adding new features based on Sharī'ah contracts. In the adaptation approach, *hiyal* (legalistic trickery to find justifiable ways of Islamic law application) and *makharij* (finding solutions for application of Islamic law) are necessary within certain Sharī'ah parameters and in fact are inevitable to a successful adaptation of conventional finance products (Laldin and Furqani, 2016).

Nevertheless, Sharī'ah contracts utilised in Islamic finance should not be restricted to the replication approach to suit the features of conventional finance products. Innovation through fintech should be explored to emphasis the value proposition of Islamic finance such as how to use technology to ensure minimal risk in the *musharakah* and *mudarabah* models of financing or how *istisna'a* and *salam* can be operated and optimised using fintech. In other words, fintech should open a new chapter in Isalmic financial products and services whereby the industry can witness the application of various Sharī'ah contracts using fintech solutions to facilitate the needs of society.

While we cannot ensure the elimination of *hiyal*, *makharij* and *dhara'i* (the legal principle of blocking the means to evil) in dealing with fintech, it is important to note that the emergence of fintech should trigger innovations among the Islamic finance industry players and promote creativity by providing new perspectives and practices in financial transactions. Sharī'ah scholars and industry players in this regard must work together to produce innovative Sharī'ah-compliant products that fulfil the needs of society and help in realising the objectives of Shariah (*maqāṣid al-Sharī'ah*).

## Fintech and Sharī'ah compliance

From the Sharī'ah point of view, the adoption of any supporting services or solutions in Islamic finance is very much encouraged and is within the permissible areas of development in Islam. Sharī'ah compliance in fintech solutions is similar to traditional Islamic finance. Fintech solutions should be guided by the broad principles of Sharī'ah by avoiding the prohibited elements in transactions, such as interest, gambling, uncertainty, harms, cheating, etc.

On the question of change in technology as offered in fintech, it should be noted that changes in technology shall accommodate the fixed principles of Sharī'ah (which are very few and mainly the prohibitions mentioned earlier). As for the other rules which can change with the change of time and place as well as technology, Sharī'ah can accommodate such rules. In order to ensure proper Sharī'ah compliance, there should be a synergy between IT and finance experts and Sharī'ah scholars in the product development process.

In addition, as earlier mentioned, transactions carried out using fintech solutions should also follow the rules of contract (*'aqd*) under the Sharī'ah by

observing the pillars (*rukn*) and conditions (*shurut*) in the contract. Besides, fintech solutions should observe Islamic ethics such as transparency, fairness and justice, and avoid cheating, fraud, misrepresentation and other actions that would create mistrust and unhappiness among the users (Kamali, 2012). These values would not only protect customers and the public at large, they would also promote the smooth allocation of resources and fair dealings in transactions that Islamic law aims to achieve. According to Abtani (2007),

> Islamic law cannot be separated from its moral, ethical and religious principles; otherwise, its rules will be useless. In other words, the Islamic system cannot be secular. This is because all Islamic rules, including economic and political, are connected with the faith, beliefs and worship of Islam.

In addition, fintech solutions should also aim at achieving the objectives of Sharī'ah (*maqāṣid al-Shariah*), namely to realise the benefits (*maṣlaḥah*) and avoide the harms or difficulties (*mafsadah* and *mashaqqah*) in the transactions.

As in traditional Islamic finance, fintech practices should also be supervised to ensure the operations are Sharī'ah compliant. Nevertheless, the existing Sharī'ah governance framework in most jurisdictions has not recognised the existence of fintech and how to supervise its Sharī'ah compliance. Moving forward, the issue of Sharī'ah compliance in fintech operations and practices should be taken into consideration by regulators or supervisory authorities so that Muslim consumers do not remain sceptical about such innovations. This will also help to boost the confidence of potential investors in embracing such technologically enabled financial intermediation. A proper Sharī'ah governance framework would also ensure the operation of fintech is in total compliance with Sharī'ah, minimise Sharī'ah non-compliance risk in firms who utilise fintech and minimise related disputes (Laldin, 2017).

In certain situations where there are shared services between the Islamic and conventional financial institutions, fintech should be developed to enforce the purpose of the transactions as envisaged by the Sharī'ah. For example, in the structuring of a fintech-enabled transaction related to *ijarah* (lease contract), the system should be able to define the ownership of the underlying assests of *ijarah*, where the lessor owns the asset and the lessee owns the usufruct of the asset. Similarly in a *murabahah* transaction, all the parties involved, transfer of ownership and price and the sequence of the transactions must be captured so as to avoid any inconsistencies with the requirements of Sharī'ah.

There are several services which can be similar between the conventional and Islamic entities of a financial institution. For example, in facilitating the transfer of cash between parties using internet banking, if A wishes to make a payment for purchasing a certain commodity from B using e-transfer or online mode there is no difference between Islamic and conventional, as both can use the same system and method of transfer, as the end result is that the amount that A intends to pay to B will be debited from his account and credited into B's account

to complete the transaction. As mentioned earlier, the general rule of Sharī'ah regarding transactions shall be observed and technology can facilitate such mode of payment.

It should be noted that the "Sharī'ah compliance" title carries the expectation of a financial system and practices that are truly based on all the tenets of the Sharī'ah, namely, faith (*aqīdah*), Islamic legal principles (*ahkām shar'iyyah*) and ethics *(akhlāq)*, and that they serve the noble goals prescribed by Islam (*maqāṣid al-Shariah*) (Furqani, 2013).

## Fintech and *maqasid al-Sharī'ah* realisation

Fintech, for players in the financial sector, will result in a shorter transaction chain, reduced operational cost, enhanced resilience of operational processes, the ability to access new customer segments to increase revenue and improved capital efficiency. Fintech enhances consumer value proposition as fintech innovations promise to reduce the transaction cost, increase the available choices, improve the transaction speed and empower the customers by moving control over conducting a financial transaction from the financial institution to the customer. Fintech innovations and high penetration of mobile technology promise to enhance financial inclusiveness by bringing in a large segment of society. All these benefits can be considered as *maṣlaḥah* to the customer and other stakeholders in the whole practice of financial operations.

Sharī'ah itself aims at establishing *maṣlaḥah* that would contribute to the well-being of mankind, and *maqāṣid al-Sharī'ah* are basically related to human interest by providing for a good order of life and wellbeing (*maṣlaḥah*). Fintech, in this regard, is viewed as innovation in financial practice that would facilitate transactions in a convenient way and hence would contribute to the overall wellbeing (*maṣlaḥah*) of society. In this regard Allah (SWT) said:

> Allah intends every facility for you; He does not want to put you to difficulties.
>
> *(Qur'an, 2:185)*

In other word, fintech is welcomed so long as it brings real benefit to human beings and removes hardship in financial transactions. The Islamic legal maxim (*qawa'id al-fiqhiyyah*) in this regard says "hardship begets facility". Likewise, Sharī'ah also promotes fintech so long as it is developed with the noble intention of facilitating transactions and not for cheating or manipulating others. This is based on the Islamic legal maxim which says "matters are determined according to their intentions".

As the Sharī'ah is designed on the basis, and for the purpose, of *maslahah*, *maqāṣid al-Sharī'ah* constitute the various dimensions of human needs, and their fulfilment will create balanced satisfaction in human life at the level of both the individual and society and help realise overall human wellbeing. Therefore,

*maqāṣid* would encompass the micro and macro dimensions of individual and societal life. With reference to Islamic finance in particular, *maqāṣid al-Sharī'ah* refer to the overall goals and meaning that the Sharī'ah aims to achieve from its principles and rulings related to financial activities and transactions (Laldin, 2008: 77).

Fintech transactions must be transparent, with no hidden costs and irresponsible finance, and devoid of cheating and fraud, etc. These controls allow for the execution of an ethical transaction to really ensure that the goal of realising *maṣlaḥah* (benefits) and avoiding harms (*mafsadah*) is achieved. Therefore, there should be in place a regulatory framework to address consumer protection and market conduct issues as well as the technological impact on the orderly functioning of financial markets that promotes *maṣlaḥah* to the general public as desired by Sharī'ah. A fintech firm that operates within the framework must also commit to observe reasonable standards of service, transparency to customers, appropriate funding and reporting and disclosure requirements.

Likewise, fintech in Islamic finance is also expected to broaden and deepen the financial market by reaching out to the marginalised segment of society. Financial exclusion can be resolved if the financial institutions consider the poor and the weak in society as potential partners to grow and develop together. In a debt-based system, this segment of society will always be marginalised due to the high risk of default, as they have no collateral and a weak ability to settle the debt. Fintech application in Islamic finance is expected to bring new hope to this segment of society to nurture, empower and grow together.

Furthermore, risk-sharing financing instruments for small and medium enterprises (SMEs) and micro-insurance can be offered to solve the problem of the availability of credit, mobilisation of savings, insurance and risk management of the marginalised segments of society. Islamic finance should be concerned with this sector, not only because the private sector or conventional finance may not be willing to provide financing to some areas due to the high cost associated with credit assessment, credit monitoring and the lack of acceptable collateral, but because it is an approach of eradicating poverty, to build a healthy and vibrant economy and as a means to circulate wealth smoothly among a number of different groups in society as emphasised in the concept of *maqāṣid al-Sharī'ah*. The Qur'an also in this regard said, "so that wealth is not circulated among the rich in the society only" (Qur'an, 59: 7). Fintech application in this regard is expected to provide the much-desired solution by seamlessly connecting the surplus sector in society with the deficit sector; and hence, assistance, cooperation, and mutual help and empowerment could be given for mutual profit and prosperity as desired by the Sharī'ah.

## Conclusion

Fintech, as a new innovation in financial services, is a welcome development in Islamic finance. The emergence of fintech should be used by Islamic finance

industry players as a new means for innovation by developing products and services that will benefit society and promote economic development. The expectation is not merely in offering financial products that are Sharī'ah compliant by using conventional structures, but also in the ability to offer financial products that are distinct, coming up from Islamic teachings, worldview and principles.

In the application of fintech in Islamic finance the following Sharī'ah parameters need to be observed, namely (1) financial and technological innovations are welcomed since under the Sharī'ah, the basic principle is permissibility (*ibahah*) and Islam encourages innovation in financial services to facilitate mankind's activities in transactions; (2) fintech application should observe the prohibitions such as interest (*riba*), gambling (*maysir*), uncertainty (*gharar*), harm (*darar*), cheating (*tadlis*), etc.; (3) fintech application should observe the rules in contract, namely the pillars (*rukn*) and conditions (*shurut*); (4) fintech application should observe Islamic ethics in transactions; and (5) fintech application should aim at realising benefits (*maslahah*) and avoiding harms (*mafsadah*) in society.

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Featuring high-level analysis of Islamic law, this book examines fintech in Islamic finance from both theoretical and empirical perspectives. Whilst building on existing approaches, it also discusses the current application of fintech in promoting financial inclusion through innovative solutions in Muslim-majority countries, identifying future directions for policy-makers.

With original chapters written by prominent academics, senior lawyers and practitioners in the global Islamic finance industry, this book serves as the first standalone pioneering reference work on fintech in Islamic finance. It also, for the first time, examines the position of Islamic law on cryptocurrencies, such as bitcoin. Besides the conceptual analysis of the Sharī'ah and legal aspects of fintech in Islamic finance, this book provides relevant case studies showing current and potential developments in the application of fintech in various sectors ranging from crowdfunding and smart contracts, to Online Dispute Resolution, Investment Account Platform and identity verification in the KYC process.

Setting the agenda for researchers in the field, *Fintech in Islamic Finance* will be useful to students and scholars of Islamic finance and financial technology.

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MIDDLE EASTERN STUDIES

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