



FinTech and Islamic Finance-Challenges and Opportunities

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ARTICLE DETAILS	ABSTRACT
<p>History Revised format: 30 Nov 2019 Available Online: 31 Dec 2019</p> <hr/> <p>Keywords <i>Fintech, Finance, Shariah, Branchless Banking, Shariah Compliance, Islamic Financial Institutions (Ifis), Islamic Banking</i></p> <hr/> <p>JEL Classification: G23, G29</p>	<p>Fintech is the merger of two terms: finance and technology. Islamic finance provides financial services to the customers in accordance to the rules and regulations prescribed by Shariah. As Islamic finance is growing by leaps and bounds since the last two decades, and so is FinTech, in the last decade. The main objective of Islamic finance is to enhance the economic growth in the society with the use of Shariah compliant financial solutions. Likewise, FinTech provides cost effective solutions for the companies and especially startups that help in the reduction of their costs and improvement in business processes. Financial industry is a very elusive yet important sector in the society, and hence heavily regulated by the regulators. The introduction of FinTech in countries, especially developing countries like Pakistan can help to boost economic growth but this will increase the workload of regulators as they must ensure stability of the financial system and to protect it from frauds/crises. Hence, proper monitoring by the regulatory authorities is crucial to avoid cyber-attack, data leakages and data theft as it can lead to misuse of the information. For the good results of FinTech, not only the users but the regulators have to be aware with the structure and functioning of the system and the regulations should be in place proactively. This paper focuses on the three main aspects namely: explaining the FinTech, opportunities for Islamic financial institutions and the challenges/issues faced by the institutions in implementing FinTech solutions. The paper also provides the current status of FinTech application globally and the potential in it to serve the poorer segments of society. The review of literature approach is used for the paper.</p>

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1. Introduction

Today Financial technology (FinTech) is introduced as a game changer. The idea of how FinTech is bridging the gap between finance and technology and bringing them much closer to each other such that they are the integral part of each other evokes a sense of change, with the uncharted and uncertain outlook

and outcome (World Economic Forum, 2017) FinTech is devoted to companies or their representatives that combine financial services with recent, advanced technologies (Navaretti, Calzolari, & Pozzolo, 2017)

FinTech is a term flipped in the recent past for technological innovation in financial services. Regulators are working towards developing a standardized definition of this broad term. Currently there is no globally recognized definition for the term “FinTech.” (Schueffel, 2016) However, according to the Financial Stability Board (FSB), of the BIS1, “*FinTech is technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services*” (Reserve Bank of India, 2017)

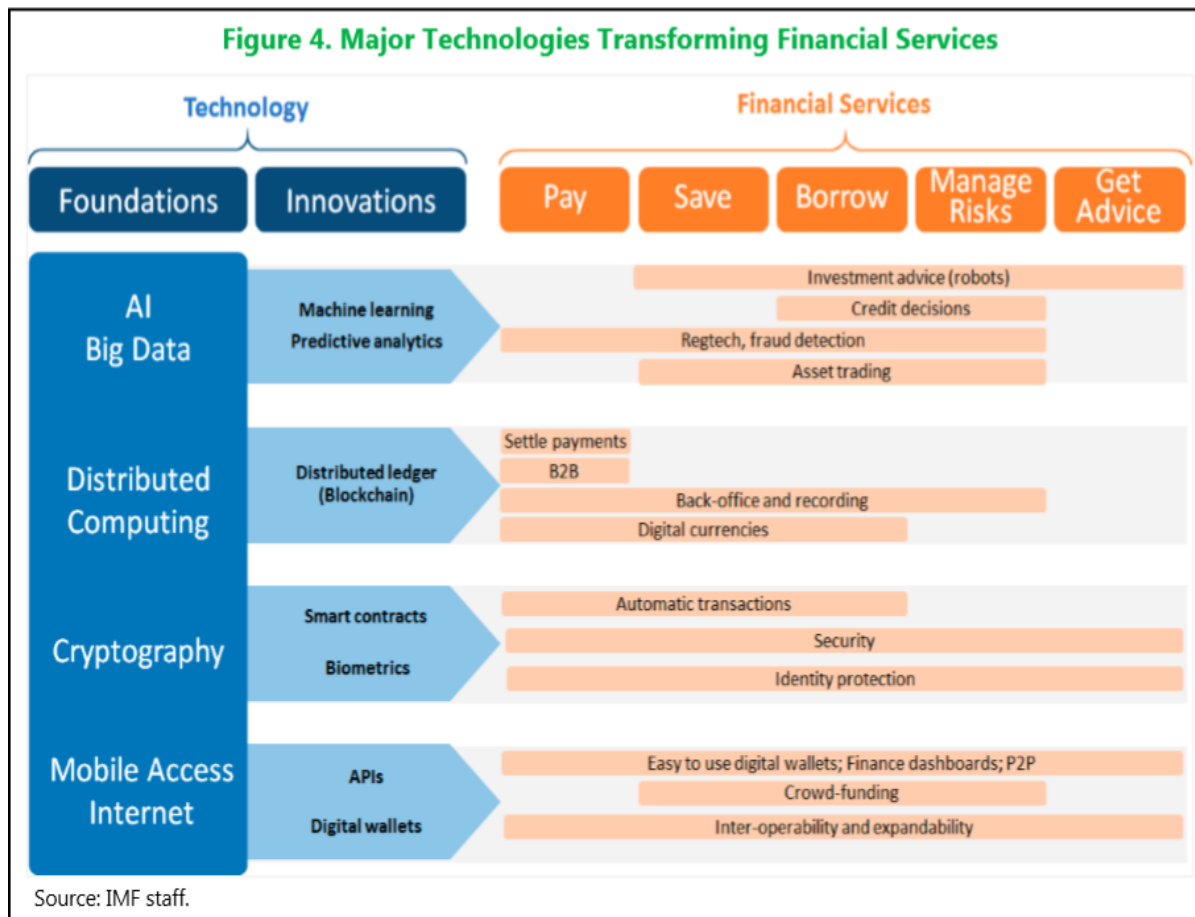
The aim of this definition is to bring wide variety of innovations in financial services under one umbrella using technologies, regardless of their type, size and regulatory status. This broadness in definition is beneficial while forecasting and evaluating the developing financial industry with its challenges and opportunities. As per law, new entrants in the market offer Internet-based and application-oriented products. FinTech is also the second name for attracting customers with more user-friendly products and services which are more effective, efficient, translucent, and computerized than those presently exist (European Banking Federation, 2015) and (London Business School Review, 2015). According to PwC (PriceWaterhouse Coopers, 2017), more than 83% of financial intuitions are of the view that their business will have problems/risks due to the fintech startups. Hence, the companies need to invest in capacity building and projects related to fintech in order to stay in the market.

1.1 Current Status of FinTech

The financial service industry has gone through several stages of development from bookkeeping, to forming of central national banks and payment systems and later introduction of complex asset markets and other financial products (Arthur, 2017). Innovative payment systems like advanced wallets have been developed and the internet, retail and telecom industry have started offering financial services. With increasing digitalization, specialization and decentralization, the financial service industry has established more effective and improved methods of utilizing a wide variety of information (Cuesta, Ruesta, Tuesta, & Urbiola, 2015). In the past decade many technological developments have taken place which are being applied innovatively in all functions of finance from payments to savings, borrowing, risk management and financial advisory (Forbes, 2018). “FlexGen advisor”

The Fintech ecosystem includes, fintech startups, technology developers, governments, financial customers, traditional financial institutions, regulators, and in the case of Islamic Fintech role of shariah board/shariah scholars is also very important. The role of business partners with the fintech ecosystem is another important segment (Lee & Shin, 2018)

1 Report of working group on FinTech and digital banking by Reserve Bank of India.



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The technological advancements like artificial intelligence (AI), Big Data, Distributed computing, cryptography and internet or mobile based products lead to predictive analytics, machine learning, smart contracts, digital wallets, etc (Lochy, 2019). Financial industry can make payments, borrow, invest and manage their risk by using innovative technology. With the prevalent growth of FinTech there is need for the change in the regulations (Bofondi & Gobbi, 2017) hence, the concept of RegTech is picking up too (Arner, Barberis, & Buckley, 2016). Similarly, the role of InsurTech is also rising (Mc Kinsey and Co, 2017).

Following the insight-based business model, most firms have remained small but investments in them have increased. According to the IMF report, global investment in FinTech rose from USD 9bn in 2010 to USD 25bn in 2016. Venture capital investments have also expanded from USD 0.8bn in 2010 to USD 13.6bn in 2016. Value of public FinTech firms have quadrupled since the global financial crises, out passing other sectors. Public sector for the segment appears to have developed exponentially in the meantime (International Monetary Fund, 2016)

According to PWC report of 2016 (PwC, Global FinTech Report 2016, 2016), 59% of the financial institutions are currently dealing with FinTech. Globally, the digital revolution brought by FinTech companies is changing the industry's structure. In 2016-2018, Commerz Bank, a giant German bank, proclaimed that by 2020 their aim is to digitalize and automate 80% of its processes (CommerzBank, 2018). In Southeast Asia, US\$345 million which is 11% of total venture capital was the portion of FinTech (TechCrunch, 2016). The huge number of unbanked population and emerging economies were

other factors that attracted the new entrants (PwC, Catching the FinTech Wave, 2016)3.

Collaborating with FinTech companies is the most commonly used form of alliance among FinTech companies and Financial Services; according to one report, 35% of the FIs are likely to have joint ventures with FinTech companies.

Partnerships between FinTech and Financial Service permit simple, adaptable and generally minimal risk arrangements for the two players to play off each other's strength. On one hand, occupants can saddle the newcomers' solutions and technologies, while restricting potential aftermath from inability to what is stipulated in the association assentation. Then again, the technology organizations take advantage from the firm's financing, and conceivably from their current client connections and brand. In the meantime, these partnerships offer profitable opportunities for the Financial Services and FinTech organizations to distinguish and identify difficulties and work on enhancing their organizations supplement each other (Kelly, Ferenzy, & McGrath, 2017).

In March, an agreement was signed between the Monetary Authority of Singapore, the central bank and Singapore's financial center to jointly undertake FinTech projects like mobile payments and block chain. The first FinTech accelerator in Gulf region in Dubai has started accepting applications (Startupbootcamp, 2018).

Wamda, a website focusing on regional entrepreneurship reported that there were less than 20 FinTech startups in the Middle East and North Africa in 2010 but the number had risen to 105 by 2015 (The Economist, 2017)

The Gulf region has a concentration of migrant employees who require remittance services. Chris Skinner commented on the region saying, "*it also encompasses the region's many expatriates accustomed to high-quality services, and the local ultra-rich*". FinTech can cater well to this population's needs. It can bring cost effective services to the four-fifths of the unbanked population, the largest percentage in the world. (The Economist, 2017)

2. Status of FinTech in Islamic Finance

Jarmo Kotilaine, the chief economist at the Bahrain Economic Development Board (EDB) famously summarized: "*When it comes to technology, what applies in conventional banking also applies in Islamic banking.*" He added: "*Using financial technology improves the quality of the banking experience among clients. It influences the speed and accuracy of the experience. Technology makes products more reachable to clients. We're transitioning toward a situation where growth for companies and economies will have to depend more on productivity than before, to achieve that, you will need better management, better innovations, new distribution channels and new capital*" {1}

Fintech for Islamic Finance must observe Shariah guidelines. In general, technology is neutral from Shariah perspective, unless it is used in a instance directly conflicts with any rulings or requirements of the Shariah (Oseni & Ali, 2019). But, how do we determine which FinTech application that requires sensitivity to Shariah requirements? Prof. Akram Laldin, Executive Director ISRA answers this in the following words.

"In order to address these concerns, it is important to note that, in general, Shariah principle with regards to a business transactions (Muamalat) is governed by the notion that every transaction is permissible, except when there is a clear text which prohibits it. The permissible principle provides flexibility in innovation and new practices in business and financial transactions. All innovations in Muamalat, are considered as permissible and welcomed. In this regard, innovations in FinTech become

impermissible only if there is clear evidence that they are in conflict (against) the basic rules of the Shariah. Therefore, FinTech application and practices, as in traditional Islamic finance, should follow the principles of the Shariah by avoiding the prohibited elements in the transactions such as interest (Riba), gambling (Maysir), uncertainty (Gharar), harms (Darar), cheating (Tadlis), etc. It must be transparent with no hidden cost, irresponsible or unethical financing”.

This gives us the fundamental guideline of what ‘Shariah compliance’ means in Fintech. The use of FinTech in a particular Islamic finance product should not be such as to create harm, deception/ cheating, hidden costs, nor should it inculcate any Riba, gambling, Gharar, or other prohibited elements such as those that make the sale invalid.

He continued: *“Likewise, the practice of transactions in FinTech application should follow the rules of contract (Aqd) used in the transaction by observing the pillars (Rukn) and conditions (Shart) in the contract. In addition, FinTech application should aim at achieving the objectives of the Shariah (Maqāsid Al Shariah), namely, to realize the benefits (Maslahah) and to avoid the harms and difficulties (Mafsadah and Mashaqqah)”*

Even though FinTech was not especially well-known within the Islamic Finance industry until late 2015, the progress of 2016 and 2017 demonstrate some wonderful accomplishments. An attempt by FinTech entrepreneurs in start of 2016 turned out to be more deliberate (Raghu, 2017). The accompanying features from the globe are among those which deserve acknowledgment.

DIB Branchless Banking: On February 8, 2018 a MoU was signed between Dubai Islamic Bank Pakistan (DIBP) and Zing Digital Commerce for establishing branchless banking platform for DIBP. This move has the potential to pave the way for digitalization of Islamic banking services enabling them to serve the unbanked population in the country. In this arrangement DIBP will partner with Zing Digital Commerce who have worked on a similar project with Shanghai F-Road. This step is an important advancement towards achieving DIBP’s vision of offering quality financial services with convenience and reliability at every customer’s doorstep, starting from the grass root level to the top (The Express Tribune, 2018)

Meezan UPaisa: As a result of a strategic partnership between Ufone and Meezan Bank, Meezan Upaisa was launched in 2016 as the first Islamic branchless banking solution. It enabled customers from around Pakistan to send and receive money, pay utility bills and get mobile top ups without having to visit a brick and mortar establishment⁴ (The Express Tribune, 2015).

Electronic Commodity Murabaha: Pakistan Mercantile Exchange Limited (PMEX) and Meezan Bank Ltd. Facilitated the country’s electronic Murabaha transaction, an important advancement in the field of FinTech. It aimed to develop the Islamic money and capital markets. Meezan Bank provided Shariah technical services to PMEX in the development of this Shariah compliant trading platform. Earlier, State Bank of Pakistan (SBP) allowed this platform to operate for a pilot period of three months. Meezan Bank Limited (MBL) and Dubai Islamic Bank Pakistan Limited (DIBPL) conducted the first electronic commodity Murabaha transaction on December 26, 2017 (The News International, 2017).

This is a progressive and revolutionary accomplishment in history of Pakistan, which has the capability of providing level playing field to Islamic banks with conventional counterparts in the management of liquidity in a simple, convenient and Shariah compliant manner. This platform can be used by IFIs to cater to liquidity problems of every potential segment, including government. Dr. Mufti Muhammad Imran Usmani, the Shariah advisor of PMEX has given assurance on the Shariah compliance of this product. The Sharia Board of SBP is chaired by renowned scholar Justice (R) Mufti Muhammad Taqi

4 Note: The strategic partnership between Meezan and Upaisa was later suspended.

Usmani. Additionally, the Securities and Exchange Commission of Pakistan (SECP) and Islamic Banking Sub Committee of Pakistan Banks' Association has also verified the very product.

Some of the checks that have to be made in a commodity Murabaha transaction, for them to be Shariah compliance:

Shariah Compliance checks for Commodity Murabaha	
1	Is there a real non-consumable asset involved?
2	Was the asset changing hands? Did the buyer receive physical or constructive possession of the asset?
3	Is there Bai Inah involved? Is the product being re-sold back to the original seller?
4	Was the commodity clearly specified, e.g. in quality, specification, amount?

Investment Account Platform (IAP): On 17th February 2016 the first multi bank platform in Islamic Financial system was launched in Malaysia with an initial fund of RM 150 million. It aimed to become a central marketplace for financing SMEs. {4}. It was the first Islamic banking, internet-based platform that combined the skills of Islamic banks along with the efficiency of technology for channelizing the investors' money for feasible commercial projects (Reuters, 2016).

Islamic Fintech Alliance (IFT Alliance): Islamic Fintech Alliance was launched on the first April, 2016 by 8 Islamic Crowdfunding Platforms Operators from all over the world in Kuala Lumpur, Malaysia. BlossomFinance (USA/Indonesia), EasiUp (France), EthisCrowd (Singapore), Narwi (Qatar), FundingLab (Scotland/Palestine), KapitalBoost (Singapore), Launchgood (USA) and SkolaFund (Malaysia) are among the founding members of IFT Alliance. The objective of this alliance is to enhance the growth of FinTech among IFIs with the hope that it would have very significant positive impact in the world (McSpadden, 2016).

Bursa Suq Al Sila: Being the financial hub for Islamic Finance, Malaysia made its position much stronger by initiation of trade on the world's first completely Shariah compliant, electronic commodity trading platform, called Bursa Suq Al Sila. It is a global commodity platform for facilitating asset-based Islamic financing and investment transactions under the Shariah guiding principles of Murabahah, Tawarruq and Musawwamah. The underlying commodity in Bursa Suq Al Sila is crude palm oil (CPO). It is an initiative by the Malaysia International Islamic Finance Center (MIIFC). The trading platform is operated by Bursa Malaysia via its fully Shariah-compliant wholly owned subsidiary, Bursa Malaysia Islamic Services Sdn. Bhd (Islamic Finance News, 2013).

Wahed-Islamic investment platform: The World's first automated Islamic investment platform was launched by New York-based Wahed Invest Inc. with the aim of delivering halal portfolio management for more than 2 billion people especially Muslims across the globe. Parallel to be the first automated ethical investment platform in the world, Wahed offers lower minimum investment amount of USD 7,500. Wahed, at the time of its start, was only available in the United States but had a vision of being trolled out to more than 100 countries worldwide by 2019 (Business Wire, 2019).

The First Global Islamic FinTech Hub: Finocracy reported "The First Global Islamic Fintech Hub" in "Future Finance 2030", which would be the point of convergence of the fast developing Islamic FinTech space. This FinTech hub will be at CH9, the main aim is to boost the entrepreneurship ecosystem in Bahrain and GCC. The plan includes a virtual network that connect various businesses, executive educational programs and a global hackathon series which will help encouraging Fintech development in IFIS across all emerging markets (Corporate Hub, 2016).

3. Challenges and Opportunities of FinTech

Perhaps future of FinTech is a dark cloud with silver linings, the major threats or the challenges arising from the revolution of FinTech includes regulatory risks, downward pressure on margins and information security.

If the regulatory aspect is ignored, it can lead to missed opportunities in FinTech investments. IFIs and

technology players could be seeking regulators as heading for direction towards FinTech for investment. Currently the regulatory development for FinTech is at its very early stage, there is a requirement for profound discussions and continuous engagement between regulators, IFIs and FinTech partnership for building trust over the new FinTech environment is very necessary. In the meantime, the vast variety of FinTech and its diversified business plans make it challenging for regulators to build up a one-size fits-all regulatory framework. For this reason, deep conversations and regular meetings and engagement between regulators, IFIs and FinTech partners in the current early stage of regulatory development is very crucial and necessary for building clarity and trustful environment.

Since most FinTech companies have an asset-light, digital focus business model, they have a competitive edge over traditional IFIs in terms of costs and scale. There is no requirement to own information technology themselves; they can hire or outsource the cloud for operational infrastructures. Thus, these new market players challenge the industry by capturing business opportunities and empowering competitors by offering their services to them.

Threat to information security and private is another challenge. Currently, this issue is very important. The adequacy of current security standards and protocols is questioned considering high number of cyber security events in recent years. PwC's Global State of Information Security Survey 2016 reported a 38% rise in security incidents detected globally in 2015 than in 2014.

Decreased market share and increased customer churn rate is another big challenge. FinTech allows customized and online solutions like robo-advisors and peer-to-peer lending platforms that are cheap, easy to use and conveniently available. This results in a loss of market share. However, despite all these considerations, many IFIs believe that customers are not ready for completely substituting their services with FinTech innovations, which is the major reason why increased customer churn is not a big concern.

But flipping the coin, there is a high level of trust in FinTech. The recognition that FinTech just represents a generally low risk of increased client churn for IFIs might be because of the time it takes for startups to develop clients' trust and build their reputation and brand image. In any case, new arrivals in FinTech can collaborate with IFIs, technology and telecommunication companies to benefit from their image and fasten the process toward building trust. The above situation features the dynamic idea of the FinTech environment. The perception of customer can move and FinTech players can approach third party brands and influencers for creating trust.

Differentiation is perhaps the most sought-after opportunity arising from FinTech, as selected by 87% of Malaysian respondents in PwC's survey. This advantage is specifically valuable in a well matured, competitive and developed IFIs.

As FinTech is relatively new, the IFS and FinTech companies, by joining hands together, can easily distinguish, discriminate and differentiate themselves from the rivals. They have a chance of being the premier ones, especially in developing countries' markets like Pakistan to provide new innovative product offerings. Therefore, differentiation due to FinTech is important to IFIs.

The Reduced Costs is another major opportunity for adoption of FinTech. These efficient and cost-effective service solutions like software as-a-service (SaaS) are shifting the structure from physical channels digital and mobile delivery. IFIs' partnerships with FinTech companies can improve, rationalize, and streamline IFIs' operations with less operational costs. Moreover, the "asset-light" models that FinTech companies use, can be looked by IFIs to reap the fruits of cost reduction.

Improved Customer Retention: The FinTech solutions for IFIs can offer healthier customer engagement, with more touchpoints and better relations through more frequent interactions. This would directly hit customer loyalty in a positive way.

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