

# The Role Of Fintech And Sharia Banking Industries In Increasing Economics Inclusion In Indonesia

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**Abstract:** This research aims to analyze the role of financial technology (Fintech) on sharia banking in Indonesia. The technology-based financial services company in Indonesia grows faster, resulting in the disruption of financial services companies, including Sharia banks. Several studies have discussed the opportunity of cooperation between Sharia banks and Fintech companies to increase the market share of Sharia banks and to write economic inclusion. In the study used methods of descriptive analysis with secondary data and literature studies. The findings in this study are that sharia banks in the economic disruption era have a greater challenge in achieving target market share. The cooperation opportunities with Fintech companies also have challenges in terms of legal certainty and sharia aspect direction. However, Fintech is expected to help sharia banks reach its market share target. This research provides the right cooperation solution that sharia banks can do with Fintech companies.

**Index Terms:** financial services industry, economic digitalization, industry revolution 4.0

## 1. INTRODUCTION

Fintech is a form of financial services business that is based on information technology Fintech forms such as big data, cloud computing, and Distributed ledger system (Arner, 2015). Based on data from the Financial Services Authority (OJK) in October 2019 there are 144 Fintech operating in Indonesia. The details are 119 registered conformist Fintech as much as 119, conventional Fintech licensed as much as 13, and sharia Fintech registered as much as 12. The existence of Fintech industry becomes a necessity because at this time the use of technology is very high. The following figure shows the usage data of digital technology performed by Indonesian people.



**Picture 1.1**  
The user of digital technology in Indonesia

Based on these images, technology-based businesses have great potential. Even the Mobile Connection data exceeds the number of people in Indonesia. OJK (2019) also notes that in October the asset owned Fintech Lending industry in Indonesia is as follows

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**Table 1.1**  
Fintech Lending industry assets in Indonesia

Kind of FinTech	Aset (October, 2019) (Rupiah)
Conventional Fintech Registered	1,200,857,302,201
Conventional Fintech Licensed	1,530,483,264,009
Sharia Fintech Registered	28,739,535,253

Source: OJK (2019)

The Data above also indicates that the Fintech industry in the digital era becomes a growing business. There are several things that make Fintech develop among others: (1) The use of technology that provides convenience for Fintech users, (2) easy requirements so as to accommodate the un bankable community, (3) have several types of products that can accommodate people. The following chart illustrates the Fintech industry in Indonesia. In the picture it is known that at this time the most dominant Fintech industry service (42, 22%) is a payment service. After that, the loan service occupies the second order (17, 78%). Subsequent aggregator service on the Third Order (12, 59%) followed by other services in the order of the fourth, which is 11, 11%. The fifth order is occupied by crowdfunding services and personal financial planner services of 8.15% respectively.



**Picture 1.2**  
Fintech profile in Indonesia in various sectors. OJK (2019)  
Also records the development of Fintech industrial assets in Indonesia. Data on Fintech industry assets are as follows.

**Table 1.2**  
The development of Fintech industrial assets in Indonesia

No.	Period	Conventional Fintech (Rupiah)	Sharia Fintech (Rupiah)

1	Desember 2018	Rp 1,546,795,182,806	Rp 2,327,497,228
2	January 2019	Rp 2,836,972,448,098	Rp 2,354,389,856
3	February 2019	Rp 2,396,702,853,774	Rp 2,697,127,896
4	March 2019	Rp 2,724,141,034,425	Rp 7,355,964,180
5	April 2019	Rp 3,161,617,544,217	Rp 7,307,204,965
6	May 2019	Rp 3,665,702,228,481	Rp 21,147,858,877
7	June 2019	Rp 2,878,278,398,554	Rp 23,581,214,299
8	July 2019	Rp 2,806,805,025,232	Rp 24,969,389,568
9	August 2019	Rp 2,579,186,797,880	Rp 27,701,242,231
10	September 2019	Rp 2,583,291,760,200	Rp 29,423,966,737
11	October 2019	Rp 2,731,340,566,209	Rp 28,739,535,253

Source: OJK (2019)

Based on the data above that the development of Fintech industry from time to time indicates an increase. The asset continues to increase except for October 2019 on Sharia Fintech has decreased but not significant. The Data also shows that Fintech industry has a promising development potential due to the development of digital technology. This is a challenge for the banking financial industry that has been engaged in financial services first. The 4.0 Industrial Revolution characterized by the digitization of all aspects has been known to have destructive properties (disruptive) but the world is unable to obstruct its development. The problems due to the disruptive nature of this digital technology need to be responded with the solution for potential damage arising can be minimized. In this case, a strategic and practical response is required for banking to deal with the potential for damage caused by digital technology. PricewaterhouseCoopers (PWC) has conducted a survey to a number of banking leaders both conventional and sharia banking at national and local levels (PWC, 2018). The survey mentioned that:

1. Current banking has provided mobile banking services (86%), Internet Banking (68%), ATM (48%), collaboration with Fintech industry (46%), opening Digital Branch office (44%), online Q & A service (38%), mobile Banking/SMS with US dollar currency (38%), as well as robotic assistance (18%).
2. The survey results also showed a challenge for banking to grow in this digitalization era, cyber security threat (48%), competition of experts/There is a possibility of loss of skills (38%), rapid technological developments (34%), competitors of digital banking initiatives (34%), the existence of Fintech industry (34%), regulation of OJK that supports digital banking (26%), as well as the initiative of telecommunications companies in digital banking (24%).
3. There are some concerns experienced by the banking in the processing of digitization, among others: (1) Banking currently has internal resources but is quite sluggish in responding (48%), (2) having a resource but not innovative enough (34%), (3) not having skills in the face of digitization (22%), (4) having skills but quite difficult to cooperate in internal teams (18%), (5) not know the skills required (16%), and use of very expensive third parties (14%).
4. The survey results also indicate that current banking

requires: (1) Digital banking platform (90%), (2) Big Data Analyzer (70%), (3) update of E-banking platform (72%), (4) Fintech collaboration (68%), (5) Artificial intelligence (50%), (6) cloud-based applications (36%), (7) Automation of processes using robots (26%) and (8) Blockchain (26%).

5. The survey results also showed that the information Technology department that collaborated with Fintech with excellent level was only about 4%. The rest is all at the level enough that in terms of cloud-based applications, E-banking platform updates, artificial intelligence, blockchain, and more.
6. Current digital risk management practices are conducted by: (1) A team of risk guarantors (60%), digital head of product (23%), CIO (11%), Team Digital Task Force (4%) and the operational team (2%).

OJK noted that currently 12 Sharia Bank (BUS) and 22 Syariah business units (UUS) in Indonesia. When compared with the growing number of sharia Fintech industries, the number of Sharia banks and Fintech have the same amount. However, Fintech develops more rapidly in a shorter period of time than the sharia Bank. Sharia banking performance during the third quarter of 2019 was in July 2019 according to Sharia banking statistics (SPS) experienced an increase in financing by 12.4% compared to the previous year. But the total growth of Sharia banking assets has resulted in the difficulty of finding a financing customer (Rahardian, 2019). Compared with the increase in sharia Fintech assets, sharia banking is currently experiencing challenges with sharia Fintech. Therefore, in this paper discussed how can be pursued Sharia banking in the face of digitizing challenges so as to improve the growth of its financial performance.

## 2 LITERATURE REVIEW

The World Bank (2016) defines Fintech as an industry that uses technology to make financial systems and financial services delivery more efficient. The FSB (2017) mentions that Fintech is the innovation of financial services technology that provides business models, applications, processes or products related to the provision of financial services. There are several Fintech activities in the services according to (FSB, 2017) payment, transfer, clearing, and settlement (payment, clearing and settlement). Griffoli (2017) mentions that such activity is usually related to payments (whether by banks or non-bank financial institutions), electronic wallets, digital currencies and the use of distributed ledger technologies. Sharia Fintech pays attention to the Sharia Akad in accordance with the terms. In relation to the condition of Rasulullah SAW has ordered: "The Muslims (versed) in accordance with the conditions among them, except the forbidden condition that is lawful and to justify the unclear." NARRATED by Abu Dawood, & al-Tirmidhi.

**The pillars of Sharia business contract which must be followed by Sharia Fintech are:**

- 1) Al-'aqid (the two parties who are the Berakad) are the two parties who conduct transactions such as sellers and buyers
  - 2) Al-Ma'qud ' Alayh (Akad object) that is the consequence of the contract, such as goods and prices in buying and selling.
  - 3) Shighat al-'aqd (editor of Akad) is a speech or action that expresses ljab and Qobul, for example ' I sell ' and ' I buy '.
- Various kinds of finance technology in Indonesia (Haddad, 2017):
- 1) Online investment company This financial service is provided by banks in Indonesia, both government and private banks.

Can be used as an online investment, such as mutual funds investment, purchase of financial assets such as stocks, insurance, bonds, and others.

- 2) Peer-to-peer lending. This type of Finance technology provides an alternative investment container while offering business loans. When mutual funds are aimed at collecting large financials, P2P lending is the opposite. The business loans offered are also small and medium business owners (SMES). The Platform is aimed at medium and small companies where they think the bank loan requirements may be too high. Peer-to-Peer Lending has lower costs and higher efficiency than traditional bank-based loans.
- 3) Digital Crowdfunding Platform is a bit similar to peer-to-peer lending, but the money collected and team through Crowdfunding websites is not necessarily meant to provide business capital for those in need. Crowdfunding can be used to reduce the financial needs of entrepreneurship, and predict market demand.
- 4) Mobile payments/Online Banking. These financial transactions include monthly bill payments, money transfers, spending on merchants in digital merchants, balance and account mutation information, and much more.
- 5) Risk and Investment Management Risk and Investment Management is a digital financial planner that will help users to make financial plan in accordance with existing financial conditions.
- 6) Marketplace. Marketplace is a digital platform that offers merchants to offer their trades, while providing easy access to shopping services so that consumers can access them through the Internet from anywhere.

Benefits of Fintech for the national economy (Iman, 2017):

- (1) To provide a structural solution for the growth of electronic-based industries (e-commerce)
- (2) Encouraging the growth of small and medium enterprises and the birth of new entrepreneurs (entrepreneurs)
- (3) Encouraging creative efforts to achieve a large market distribution (critical mass)
- (4) Enable market development, especially those who still have not served the conventional financial and banking services (unbanked population)

The impact of Fintech in Macroeconomics (Karim, 2018):

- (1) Facilitate access to micro Small Business Financing (MSMES), lower the price and increase the transaparansi so that SMES financing constraints are reduced,
- (2) Increase private investment due to the accumulation of capital that causes the company can more easily finance its investment more easily and can be used more productively.
- (3) Can improve the employment and purchasing power of the public as well as tax revenues for the government.

### 3 RESEARCH METHODOLOGY

Research uses literature studies and descriptive analysis. The data used is the financial data that is sourced from OJK, namely Sharia banking statistics and Fintech statistics in Indonesia.

### 4 ANALYSIS AND DISCUSSION

Based on the data and identification of the previous issues, it is known that there is a threat to sharia banking in seeking asset growth due to the development of digital technology. There are several important points that can be used to help sharia banking

improve its performance amid threats and the consequences of digital technologies such as the following.

#### 1. Evolution from traditional banks to digital banks

Based on the results of the PWC Survey (2018) It can be concluded that some banking recognizes a significant impact as a result of technological developments in various fields affecting the way of thinking and acting including economic actors. The conclusion of the survey suggested that sharia banking began to change the way of view from traditional banks to digital banks. Nizar (2017) mentions that there are two main factors affecting the evolution of financial innovations that are demand and supply factors. The demand factor is in the case of shifting consumer preference and innovation in technology. While the bidding factor is the regulation and new market structures. Based on that, the current demand factor has shown that there is customer preference to use technology to access and conduct financial transactions because it is considered more practical and convenient. Technology has also demonstrated a rapid development so that two factors demand to turn traditional services into a digital-based service is sufficient. Meanwhile, the form of a regulation is issued by Bank Indonesia in PBI No. 19/12/PBI/2017 on the implementation of financial technology and the provisions of its implementation. However, these regulations need to be upgraded from the Regulatory Sandbox to a regulation that accommodates consumer protection, risk management and prudence (Hapsari, et al., 2019). The market structure in the digital era is mentioned by Rhenald Kasali in Ariyanti (2017) that digitalisation creates two types of markets namely new markets and lower-class markets. There are three ways to deal with digitalisation: (1) transforming products and building online systems to connect companies with markets, as well as improving cost structures or business processes. (2) Collaborate with new businesses that have evolved or start growing on the market, and (3) train executive ranks to understand the meaning of disruption and change its mindset. As such, nowadays sharia banking is most possible to collaborate with new business that has developed or started to grow which can synergize its Fintech.

#### 2. Collaborative collaboration with Fintech targeting SMES financing segments

SMES is one of the special attention in the era of economic digitization. The recorded SMES continued to grow from 1.59% in 2014 to 3.1% in 2017, and became 4% in 2018 (Supriyatna, 2019). MSMES are also mentioned to have contributed 60.34% gross domestic product (GDP) in 2018 and predicted to be 65% in 2019 (Supriyatna, 2019). However, usually SMES are unbanked, from a total of 60 million MSMES only 11 million who enjoy banking services. There is a potential of 64% of the community that has not been touched by bank access so it becomes potential for financial services providers who can accommodate it (Nainggolan, 2017). This potential can be a challenge for Sharia banking because usually banking tends to have difficult requirements to access the community. Thus, sharia banking needs to collaborate with Fintech to accommodate the needs of the unbanked community. Sandbox FinTech regulations do not include consumer protection, risk management and prudence, can cooperate with sharia banking to provide a sense of security in transactions to customers. The form of collaboration between Sharia banking and Fintech in improving financial performance and to accommodate the funding needs for SMES include the following.

**a) Fintech as intermediary, sharia bank as investor**

Fintech seeks a SME lending customer. However, Fintech does not nurture certain investments because investors who will finance SMES are sharia banks. The contract that arises from the transaction is Akad Mudharabah. The advantages gained for SMES are the ease of obtaining investors and security guarantees of transactions with sharia banks. Fintech also gains a fee for transactions and does not require any investment funds. Sharia banks also benefit from investment returns.

**b) Fintech and Bank Syariah sharing technology**

In the PWC survey (2018) mentioned that the average banking experience in the face of economic digitization is the unpreparedness in terms of resources that have skills in technology, cyber, and the expensive problems of cooperation with third parties. In technology procurement. By doing this cooperation, sharia banking products and Fintech can be marketed together so that there is cost savings.

- [9] Nainggolan, Bilpen. 2017. Kajian Bisnis Fintech Syariah. PT Telkom.
- [10] Nizar, Muhammad Afdi. 2017. Teknologi Keuangan (Fintech): Konsep Dan Implementasinya di Indonesia. Warta Fiskal. Edisi 5
- [11] OJK. 2019. Statistik Fintech Lending di Indonesia. OJK
- [12] OJK. 2019. Statistik Perbankan Syariah, Juli. OJK.
- [13] PricewaterhouseCooper (PWC). 2018. Digital Banking in Indonesia 2018. PWC. Jakarta.
- [14] Rahardian, Lalu. 2019. OJK Akui Perlambatan Pertumbuhan Aset Perbankan Syariah. Bisnis.com, 28 Oktober.
- [15] Supriyatna, Iwan. 2019. Era Digital, Ralali Persiapkan UMKM agar Bisa Go Online. Suara.com. 14 Agustus

**5 CONCLUSION AND SUGGESTION**

The development of Fintech in the financial services industry cannot be prevented by the development of digital technology. The Community preference in financial behaviour changes from traditional to digital patterns. Therefore, in various ways including financial transactions, we prefer to use digital. Financial transactions in the form of lending are traditionally usually covered with various requirements that are not easy for the community. The presence of Fintech helps people who are unbanked so easy to get lending services. The ease of service provided by Fintech is a challenge for Sharia banking to improve lending performance due to digital technology and Fintech. While the potential expansion of the actual market share has not been accommodation still a lot and prefer the easier scheme.

**REFERENCES**

- [1] Arner, Douglas W.. (2015). "The Evolution of Fintech: A New Post-Crisis Paradigm?", Journal The HKU Scholars Hub, The University Of Hong Kong
- [2] Ariyanti, Fiki. 2017. Perusahaan Harus Ubah Strategi Demi Bertahan di Era Digital. Liputan6.com. 22 September.
- [3] Firmansyah, Egi Arvian dan Anwar, Mohammad. 2019. Islamic Financial Technology (Fintech): Its Challenges and Prospect. Advances in Social Science, Education and Humanities Research (ASSEHR), Vol.216.
- [4] Griffoli, T. M. 2017. Banking on change. Finance & Development (September), Vol. 54, No. 3. Washington DC, International Monetary Funds
- [5] Hadad, Muliaman D. (2017). Financial Technology (Fintech) di Indonesia. Kuliah Umum Fintech, IBS, Jakarta
- [6] Hapsari, Recca Ayu; Maroni; Satria, Indah; dan Ariani, Neny Dwi. (2019). The Existence of Regulatory Sandbox to Encourage the Growth of Financial Technology in Indonesia. Fiat Justisia, Vol. 13 No. 3:271-288
- [7] Iman, Nofie. 2017. Fintech, Islamic Finance, and Its Challenges. Indonesia Sharia Economic Festival. Surabaya, 10 November
- [8] Karim, Adi Warman. 2018. Managing The Impact of Fintech: Case Of Indonesia Islamic Banks. Makasar, 4 Juli