Regulation Urgency of Financial Technology to Encourage Financial Literation in Indonesia

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Abstract: The latest technology innovation, namely innovation in the financial field called financial technology or abbreviated as Fintech. People can access financial services easily using only the internet and electronic devices. However, the development of financial technology services has not been matched by sufficient regulation. The use of technology is vulnerable to crime by breaking into security systems that exist in systems in financial technology or even prone to intrusions related to money laundering and terrorism financing. For this reason, regulators need to be encouraged to formulate strategic policies that ensure the financial risks of technology can be mitigated and provide protection. Bank Indonesia and the Financial Services Authority as regulators prepare regulations that can protect customers and service providers. The regulations prepared are not only from two institutions that have the authority to supervise and regulate the financial technology sector, but are regulated by the Ministry of Communication and the Ministry of Trade. Financial technology start-up companies before starting a business must meet the requirements and permits as regulated by Bank Indonesia and the Financial Services Authority.

1 INTRODUCTION

Technology has been known to humans since millions of years ago because of the urge to live a more comfortable, more prosperous and more prosperous life. Technology has been used as an indicator of the progress of a country. The state is said to be advanced if it has a high technology level, while countries that cannot adapt to technological progress are often referred to as failed countries (Ngafifi, 2014). Some countries included in the category of developed countries, among others: 1) USA 2) Japan 3) India 4) China 5) Germany 6) Russia 7) Israel 8) North Korea 9) Canada 10) Singapore 11) Sweden 12) Finland 13) England 14) France 15) Philippines.

Technology changes the way humans live their lives. The existence of technology in life Technological advances have been included in various fields such as medicine, military, bioscience and digital technology. The latest technology innovation, namely innovation in the financial field called financial technology or abbreviated as Fintech. Fintech has become a new innovation in the financial business world, making it easier and more efficient. The community is no longer traditionally served by coming to the bank office directly. People can access financial services easily using only the internet and electronic devices.

Fintech companies in Indonesia consist of various sectors such as payment (digital wallets, peer to peer payments), financing (crowdfunding, micro-loans, credit facilities), investment (equity crowdfunding, Peer to peer lending), insurance (risk management), cross -process (big data analysis, predictive modeling), and infrastructure (security). Based on data from the Indonesian Technology Financing Association (Aftech Indonesia) as of September 2017 there are 187 financial technology services that have been present in Indonesia. This amount does not include startups or business start-ups who are still preparing to be fully operational. Of the 187 financial technology services, 39% offer payment services (digital wallets, peer to peer payments), 26% provide financing services (micro-loans, credit facilities), the rest provide crowdfunding services, personal financial planning and others. The Financial Services Authority (OJK) noted that there are 54 financial technology companies listed in the regulator consisting of 53

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conventional fintech companies and one Islamic financial technology company. The Financial Services Authority will record as many as 164 fintech companies that have been registered and there are already 34 companies that are in the registration process.

Service ease and time efficiency are considered by many users of financial technology services. However, the development of financial technology services has not been matched by sufficient regulation. The use of technology is vulnerable to crime by breaking into security systems that exist in systems in financial technology or even prone to intrusions related to money laundering and terrorism financing. For this reason, regulators need to be encouraged to develop strategic policies that ensure the financial risk of technology can be mitigated and provide protection to the public. This is because, the financial technology has a good level of effectiveness to improve the quality of banking services in Indonesia, so that the banking management can implement it to reach all levels of Indonesian society, especially for people living in the 3T area (Frontier, Outermost, and Isolated) (Chrismastianto, 2017).

2 METHOD

This research is a normative research by examining juridical construction that can minimize the financial risk of technology and provide a positive impact to improve financial literacy for the community. The approach used is the legislative approach and the conceptual approach. Primary legal materials, secondary legal materials and tertiary legal materials are obtained through literature studies and then analyzed using legal construction methods.

3 DISCUSSION

3.1 Financial Technology

Financial Technology (FinTech) is a form of application of information technology in the financial sector. Financial technology is a development of financial technology that emerged in the 21st century. The National Digital Research Center in Dublin, Ireland defines financial technology or fintech as: "innovation in financial services" or "innovation in financial services". Financial Technology is a new industry that uses technology to improve activities in finance (Sanikula, 2017) Basically Financial Technology is applied to back-end technology to consumers for financial transactions.

The definition of financial technology according to T. Lee and H. Kim FinTech as a new type of financial service based on the broad type of corporate users, combined with IT technology and other financial services such as money transfers, payments, asset management and so on. Fintech covers all technical processes from increasing financial software to programming new types of financial software that can affect the entire financial service process (Lee, 2015).

Meanwhile B. Nicoletti understood FinTech with an approach from two complementary areas: financial services and solutions based on advanced technology. Economic literature does not agree with one definition of FinTech because of the overall diversity of businesses. The word "FinTech" has entered the Oxford Dictionary as: "Computer programs and other technologies used to support or activate banking and financial services" (Nicolleti, 2017). The state of California (especially cities in Silicon Valley) is where technology finance is developed. California became the second largest country after Britain, which developed financial technology to a large extent on a global scale. In Asia, there is Zhong An who has successfully developed financial technology. Zhong An is a joint venture between Alibaba Group Holding, Tencent Holdings and Ping An Insurance that provides large data to provide online property insurance, wealthfront (a company that provides affordable yet sophisticated investment management services), and Kreditech (companies that provide financial services with focus access to credit) (Buckley, 2017).

In today's digital age, and with significant demographic shifts in the population, people are seeking easy access, convenience, efficiency, and speed. Financial activities are increasing along with the use of technology in life because people are easier to access financial products, easy to do transactions and also improve financial literacy. The use of smartphones for mobile banking, to access online investment services and currency exchange is an example of the use of technology that aims to provide financial services to be more accessible to the public. For companies, the use of technology for financial products also provides efficiency in production costs for each product that is issued and increases the effectiveness of time both in collection and funding.

Financial technology uses applications, processes, products and new business models in financial services that consist of complementary financial services and is provided as an end-to-end process through the internet. Fintech companies can target both corporate and retail segments. Today FinTech comprises five major areas, including: (a) Finance and investment: Currently investors and regulators focus on alternative financing mechanisms, especially crowdfunding and P2P loans. However, FinTech has gone through this scope with the aim of including financing its own technology, for example through crowdfunding, public offerings, venture capital, private equity, listing, etc; (B) financial operations and risk management: This is the first driver of IT spending carried out by financial institutions, starting in 2008 as financial institutions have been trying to build better compliance systems to handle the large volume of changes in post-crisis regulation. From an evolutionary perspective, the development of financial theory and quantitative financial techniques and their translation into financial institution operations and risk management are the main features of the 1990s and 2000s, because the financial industry established a system based on VaR and other systems used to manage risk and maximize profits. Henceforth, this is a possible area; that will continue to grow driven by costs and fines; (c) Payments and infrastructure: Payment of internet and cellular communications is a driving force in several developing countries and is the main focus of FinTech, this problem is more clearly in Part 5 as the foundation of FinTech 3.5. Since the 1970s, the payment process has become a very attractive area that can lead to the development of domestic and cross-border electronic payment systems. Currently it has supported the global foreign exchange market of US $ 5.4 trillion per day. Likewise the infrastructure for securities trading and settlement and also for trading OTC derivatives continues to be a major aspect of the FinTech landscape, where IT and telecommunications companies are looking for opportunities to eradicate traditional financial institutions; (d) Data security and monetization: These are key themes in FinTech today especially as both FinTech 2.0 and FinTech 3.0 start to exploit the monetary value of data. Following the GFC, it has become clear that the stability of the financial system is a national security issue. The digitized nature of the financial industry means it is particularly vulnerable to cybercrime and espionage, with the latter increasingly important in geopolitics. This digitization and consequent vulnerability is the result of decades of development, highlighted in previous sections, and, going forward, will remain a major concern for governments, policymakers, regulators and industry participants, as well as customers. At the same time, FinTech innovation is clearly present in the uses to which "big data" can be applied to enhance the efficiency and availability of financial services; (e) Consumer interface: particularly online and mobile financial services. This will continue to be a major focus of traditional financial services and non-traditional FinTech developments. This is another area in which established and new IT and telecommunications firms are seeking to contest directly with traditional financial services firms; and, interestingly, it may well be in developing countries where factors increasingly combine to support the next era of FinTech development. This vertical holds the highest potential of competition with the traditional financial sector, as this tech companies can leverage of their pre-existing large customer bases to roll out new financial produts and services (Arner, 2017).

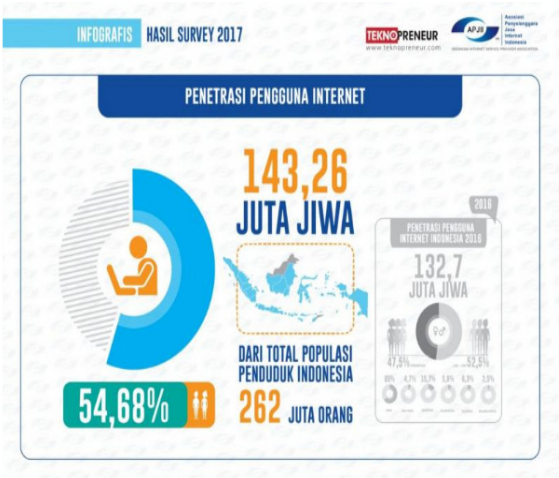
3.2 Development of Regulations on Financial Technology in Indonesia

According to data from the Central Statistics Agency (BPS) from survey data of population aged 15 years and over, there are 190.5 million people. Of this amount, 82.2 percent, aka 156.6 million people do not have an account. Only 17.8 percent, around 33.9 million people have at least one account. This is due to low financial access and low financial literacy for the community. Understanding of Indonesian society towards banking products is still low. The Financial Services Authority states that only 28.9% of the adult population understands Indonesian banking products.

The Financial Services Authority was established based on Law Number 21 of 2011 concerning the Financial Services Authority which functions to organize an integrated regulation and supervision system for all activities within the financial services sector. In the past, prior to the regulation, the authority to regulate and supervise integrated activities in the financial services sector was under the auspices of Bank Indonesia, but after the Law No. 21 of 2011 concerning the Financial Services Authority, the duties and authorities of Bank Indonesia were regulated and supervised. transferred to the Financial Services Authority. Both institutions have a role in encouraging financial access and financial literacy for the community. Like, Bank Indonesia has always encouraged the growth of financial technology-based payment system services business. While the Financial Services Authority has a role to supervise.

In response to the high use of the internet in Indonesia, the Indonesian Internet Service Providers Association (APJII) conducted data collection and the result was that in 2017 out of 262 million people in the Indonesian population, 50 percent or around 143 million people were connected to the internet.

This amount is very lame with the low number of bank account owners in Indonesia. Indonesia is far behind compared to countries in Southeast Asia.



Reference: www.kominfo.go.id

Its use comes from millennial generations who like to use the internet to do activities that are not only for shopping, but also for buying goods online, ordering online transportation, doing business and even working. However, this result is not comparable to the low usage of internet services for banking, which is 7.39 percent (the results of a survey by the Indonesian Internet Service Provider Association (APJII). This high internet usage then encourages the presence of financial technology-based payment system applications that are considered more easy and more practical than the payment system using money, checks, demand deposits or bank transfers, the Government is supportive of the development of financial technology and has issued Presidential Regulation No.74 of 2017 concerning e-commerce Roadmap in Indonesia which regulates documents that give direction and steps for the preparation and implementation of trades whose transactions are based on a series of electronic devices and procedures.

Based on Article 1 of Bank Indonesia Regulation Number 19/12 / PBI / 2017 concerning the Implementation of Financial Technology, Financial Technology is the use of technology in financial systems that produce new products, services, technology, and / or business models and can have an impact on monetary stability, system stability financial, and / or payment system efficiency, smoothness, security and reliability. Financial technology in Indonesia has many types, including startup payments, lending, financial planning (personal finance), retail investment, crowdfunding, remittances, financial research.

Financial technology is a technology-based business that competes and or collaborates with financial institutions (Serfiyani, 2017). Activities carried out by financial institutions are shorter and more efficient using financial technology. The Financial Services Authority said the effect of the high use of financial technology in Indonesia proved to increase e-banking users by 270 percent, from 13.6 million customers in 2012 to 50.4 million customers in 2016. The frequency of e-banking use transactions also rose 169 percent, from 150.8 million transactions in 2012 to 406.6 million transactions in 2016.

Bank Indonesia as a monetary system supervisory body has an interest in protecting the interests of customers and maintaining the smoothness of the financial technology payment system. Customer protection in the development of financial technology payment system business regulated by Bank Indonesia in Bank Indonesia Regulation Number 16/1 / PBI / 2014 concerning Consumer Protection for the Implementation of Payment Systems. The purpose of the issuance of the regulation is that funds in the financial technology payment system are not lost when in the management of the organizer.

As for the payment technology system for financial technology in Indonesia, Bank Indonesia issued Bank Indonesia Regulation Number 18/40 / PBI / 2016 concerning the Implementation of Payment Transaction Processing which came into effect on 9 November 2016. The regulation regulates parties involved in the payment transaction process divided into two, namely 1) Payment System Services Provider (PJSP) are parties who carry out activities and / or are responsible for the implementation of the authorization, clearing or settlement (settlement) stage in processing payment transactions; and 2) Supporting Organizers. A start-up company that will open a financial technology payment system business gets permission from Bank Indonesia to become a Payment System Services Provider (PJSP) by fulfilling the requirements and testing the feasibility aspects as a Payment System Services Provider (PJSP).

In order to protect consumers and minimize risk management and apply the precautionary principle to maintain monetary stability, financial system stability, and an efficient, smooth, safe and reliable payment system, Bank Indonesia as the payment system authority has issued Bank Indonesia Regulations (PBI) and Member Regulations of the Board of Governors (PADG) regarding Financial Technology and the Regulatory Sandbox. The regulation was stated in PBI No.19 / 12 / PBI / 2017 concerning the Implementation of Financial Technology. Bank Indonesia requires financial technology start-up companies to make payment systems to register at Bank Indonesia. The registration obligation is excluded for Payment System Service Providers who have obtained permission from Bank Indonesia and for Financial Technology Providers who are under the authority of other authorities. The listed financial technology companies will be announced on the official website of Bank Indonesia. The obligation to register does not eliminate the obligation of the Financial Technology Provider to apply for licenses to Bank Indonesia or the relevant authorities, such as the Financial Services Authority.

Bank Indonesia as a supervisor and regulator supports the development and innovation of Financial Technology. Financial Technology Organizers can test their products, services, technology and / or business models at Bank Indonesia through the Regulatory Sandbox. PADG No. 19/14 / PADG / 2017 concerning Regulatory Sandbox Financial Technology clearly regulates the procedures and process of testing in the Regulatory Sandbox. The procedures for registering the Financial Technology Operator are more clearly regulated in PADG No.19 / 15 / PADG / 2017 concerning Procedures for Registration, Information Submission and Monitoring of the Implementation of Financial Technology.

Bank Indonesia has done in maintaining orderly payment traffic related to financial technology: 1) In terms of providing markets for business people, Bank Indonesia ensures protection for consumers, especially regarding the guarantee of consumer data and information confidentiality through cyber security networks; 2) In terms of savings, loans and equity participation, Bank Indonesia requires every business to comply with macroprudential regulations, deepening financial markets, payment systems as supporting cyber operations and security to safeguard consumer data and information; 3) In terms of investment and risk management, Bank Indonesia also requires every business actor to comply with macroprudential regulations, deepening financial markets, payment systems as supporting cyber operations and security to safeguard consumer data and information; 4) In terms of payments, settlement / clearing and clearing, Bank Indonesia ensures protection of consumers, especially regarding the guarantee of consumer data and information confidentiality through cyber security networks.

Bank Indonesia guarantees the security and order of payment traffic by becoming: a) Facilitator. Bank Indonesia is a facilitator in terms of providing land for payment traffic. Intelligent business analyst. Through collaboration with international authorities and agents, Bank Indonesia is an analyst for businesses related to FinTech to provide views and direction on how to create a secure and orderly payment system; b) Assessment. Bank Indonesia monitors and assesses every business activity involving FinTech and its payment system using technology; c) Coordination and Communication. Bank Indonesia maintains relations with relevant authorities to continue supporting the existence of FinTech payment systems in Indonesia. Bank Indonesia is also committed to supporting business people in Indonesia by providing regular briefings on FinTech.

Besides Bank Indonesia, the Financial Services Authority also plays an active role in the development of financial technology in Indonesia. The Financial Services Authority has an interest in maintaining financial system stability and protecting customers' interests. The Financial Services Authority issued Regulation of the Financial Services Authority number 77 / POJK.01 / 2016 concerning Financial Technology-Based Lending and Borrowing Services. So, a start-up company that has obtained a license as a Payment System Service Provider (PJSP) then wants to open financial technology services in terms of lending and borrowing, the company must obtain permission from the Financial Services Authority. Financial Services Authority Regulation number 77/POJK.01/2016 concerning Financial Technology-Based Lending and Borrowing Services protects consumers regarding the security of funds and data, prevention of money laundering and financing of terrorism, financial system stability, to fintech company managers. Other matters stipulated in the regulation, namely regarding the limitation of share ownership, minimum capital, maximum loan and interest limits, the requirement to make an escrow account, as well as some principles that must be applied by financial technology providers.

Regulators involved not only in the financial sector (Financial Services Authority, Bank Indonesia and Ministry of Finance), but all aspects involved. For example the Ministry of Communication makes a rule that the business of financial technology payment systems must not conflict with law No. 11 of 2008 concerning electronic information and transactions. Business actors who offer electronic system products must provide complete and correct information relating to contract conditions, producers and products offered. This is useful to protect consumers in business from and electronic transactions through financial technology. The regulation is reinforced by Government Regulation No. 82 of 2012 concerning the Implementation of Electronic Systems and Transactions. Financial technology includes the service business regulated in articles 65 and 66 of Law No. 7 of 2014 concerning Trade.

FinTech has changed the payment system in the community. In this case, FinTech is able to replace the role of formal financial institutions such as banks. In terms of payment systems, FinTech plays a role in: a) Providing markets for business people; b) Become a tool for payment, settlement and clearing; c) Helping the implementation of more efficient investments; d) Mitigate risks from conventional payment systems; e) Helping those who need to save, borrow funds and capital investments.

4 CONCLUSIONS

Financial Technology (FinTech) is a form of application of information technology in the financial sector. The high use of internet services in payment services makes regulators, namely Bank Indonesia and the Financial Services Authority have prepared regulations that can protect customers and service providers. The regulations prepared are not only from two institutions that have the authority to supervise and regulate the financial technology sector, but are regulated by the Ministry of Communication and the Ministry of Trade. Financial technology start-up companies before starting a business must meet the requirements and permits as regulated by Bank Indonesia and the Financial Services Authority.

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