

Data Protection in Financial Technology Services: Indonesian Legal Perspective

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Abstract: The banking sector has facing a new competitor, namely Financial Technology (Fin-tech). Fin-tech itself can be described as an industry composed of companies that use new technology and innovation with available resources in order to compete in the marketplace of traditional financial institutions and intermediaries in the delivery of financial services. In Indonesia, Fin-tech has been widely developed in the past 3 years. Fin-tech is facing a new challenge as a new service for financial consumer which adapts new way of living in modern digital technology era. Basically, Fin-tech is offering three main categories such as payment, personal finance and financing. In financing application there are peer to peer financing, social crowd funding and also loan marketplace. All of this kind application has some issues in legal framework and data protection due to the using of communication technologies such as internet, social networks, Smartphone, massive use of data with the Big Data, connected objects etc. The using of big data and those new technologies have created new opportunities for these sectors, these developments also raise significant data protection concerns. This paper will discuss two legal issues of Fin-tech, the legal aspect and the data protection

Keywords: Financial Technology, Consumer, Data Protection.

1. Introduction

Currently the financial sector face a new model of technology so called fin-tech. Fin-tech is abbreviation from Financial Technology, a terminology that combines between financial and information technology. So far there is no consensus amongst scholar regarding fin-tech definition. Although there is no common definition on Fin-tech, there are similarities that can be drawn from some opinions; Fin-tech is a new financial industry that applies technology to improve financial activities. Although the word fin-tech is something new, but in fact this term describes a relationship that has long existed. The early relation between financial and technology has been started since 50's when credit card was introduced to ease the burden of carrying cash. Followed in the 60's, it was introduced the ATM (Automatic Teller Machine) which substituted tellers and branches. In 1990, the use of internet was beginning to change the way of life. Financial services industry offers services based on information technology. Since 2008, financial services are no longer dominated by traditional regulated financial services industry. New start-up companies and established technology companies have begun to offer financial product and services directly to the business and general public. The convergence between startup business trends and modern fin-tech has brought a new era of financial services development from traditional financial system (bank driven) to consumer driven.

According to Indonesia Internet Service Provider Association (APJII), per January 2017, total of internet user in Indonesia is 132,7 million with internet penetration around 51,8%. As many as 63,1 million of them access the internet by using mobile phone. The widespread use of the internet, especially using mobile phones becomes the dominant factor of the number of internet users in Indonesia. Most mobile phone users are young people who want everything that are easy and instantaneous. Meanwhile, the number of Indonesian adults who have savings accounts is only 36%



of the population and around 49 million SMEs unit is not yet bankable. There are several reasons why Indonesians are reluctant to have a bank account. Firstly the procedure related to banking is so complex; secondly the lack of access to banking in the region; third, the lack of knowledge of banking products, etc. These facts contributed the emerging of fin-tech startups in the past three years. Fin-tech startup appears to fill the gap due to low penetration level of banking institution and increasing public interest to have banking services in hand.

Up to July 2017, a total of 180 startup fin-tech has been operating in Indonesia. Looking this situation, the Indonesian government responds quickly this phenomenon. Indonesia Financial Service Authority (OJK) and Indonesian Central Bank (BI) release new regulations regarding fin-tech service. Although not directly address fin-tech in specific; however, this regulations at least provides an opportunity for fin-tech to flourish. This means that the government responds to this situation well. OJK released regulation POJK No.77/POJK.01/2016 regarding Money Lending Services Based on Information Technology. Meanwhile, BI released PBI No. 18/40/PBI/2016 on Management Processing of Payment Transactions. The two regulations regulate the two most important things in the fin-tech service: peer to peer lending system and payment gateway system. Regulations issued by OJK and BI adopting the Regulatory Sandbox. What does it mean with Regulatory Sandbox? Regulatory Sandbox introduced by The Financial Conduct Authority (FCA), the financial body in United Kingdom in April 2016. Basically Regulatory Sandbox is a set of regulation which allows both fin-tech startups and established company to test their innovative product in the area of Fin-Tech. It is yet the best approach when dealing with the new technology. Regulators promote the innovation to grow faster and bigger by lowering barriers but still protect the consumers from the harmful effect of new product.

2. Methodology

This paper addresses two main issues. First issue is discussing legal framework of fin-tech services especially on peer to peer lending and payment gateway. In this matter, it will analyze how fin-tech services work and the legal relationship amongst fin-tech player. Second issue is discussing the data protection on those services. It focused on consumer data protection, since this service mostly relies on data interchange between its consumers. The method used in this paper is normative legal research. The problem approach used in this paper is the statute approach and the conceptual approach. The statute approach was chosen because this study will examine the various legislations and regulations related to fin-tech Startup Business. It will emphasized on two specific regulations which are POJK No.77/POJK.01/2016 regarding Money Lending Services Based on Information Technology and PBI No. 18/40/PBI/2016 on Management Processing of Payment Transactions. What to be analyzed are the parties involved, how the legal relationship between the parties, the mechanism of business platform and also how the arrangement of consumer protection especially related to data protection. We also look some example of Indonesian Fin-Tech Startup that related in peer-to-peer lending system and payment gateway system. How their business model is the concern in this paper to determine what the type of legal relationship are and also how they use consumer data in their business activity. Although POJK No.77/POJK.01/2016 regarding Money Lending Services Based on Information Technology and PBI No. 18/40/PBI/2016 on Management Processing of Payment Transactions choose to adopt Regulatory Sandbox we will scrutinized whether those regulation meet the criteria to be a good Regulatory Sandbox.

3. Findings

Indonesia Financial Service Authority (OJK) divides fin-tech startup into five categories. First, fin-tech engaged in payment, transfer and remittance. Second, fin-tech finances which divided into two, namely equity base crowd funding and loan base crowd funding. Third, fin-tech financial management, that provides convenience for people in investing or managing finance. Fourth, fin-tech engaged in insurance. Fifth fin-tech which is engaged in the marketplace lender and supporting.

In the third, fourth and fifth models are only services that emphasize the information and supporting system. But in the first and second model already involves a quite complex legal relationship. Therefore OJK and BI immediately issued a rule to anticipate the development of those services. The following will discuss the legal relationship and the parties involved in the peer to peer lending (P2P) model and payment gateway system.

3.1. Peer to Peer Lending System

The term 'peer-to-peer' describes the interaction between two parties without the need for a central intermediary. The beginning of P2P in finance can be traced when a company from United Kingdom, namely Zopa launched in 2005 and the US-based Prosper in 2006. Both facilitated peer-to-peer lending, whereby borrowers and lenders could bypass banks and deal directly with each other through an online marketplace. In peer to peer lending, fin-tech startup does not operate like bank. They do not function as intermediary institution. This means that fin-tech start-up does not collect and distribute public funds. They will act as a marketplace or platform to bridge the lender and borrower. This is due to comply with the Banking Act (Act No. 10 Year 1998) that prohibits any entity other than bank to serve collecting fund as a saving and distribute it as a credit. However, both party need to follow the regulation set by platform. P2P start-up will analyze the risk; make sure that their operation followed authority regulation and secured the data of both party.

Article 1 (3) POJK No.77/POJK.01/2016:

"Money Lending Services Based on Information Technology is a financial services to match between lenders and borrowers in order to create money loan agreements in rupiah currency directly through electronic systems using the internet network."

Pursuant to that article, this P2P service has a different character from the money lending service performed by the bank. Not to be confused, there are some banks that also have money loan services through the internet media, but this is different from the P2P model. In P2P model the money lender comes directly from fellow users of the fin-tech service. So in this model, the fin-tech application serves as a platform or a marketplace where application users use the service with their different roles (borrower or lender).

The parties involved in P2P can be dividing in three categories which are Service Provider (Platform), Borrower and Lender (Investor). Article 8 POJK stipulated that there are two legal relationships in P2P system. First is legal relationship between the fin-tech startups and users of application in this case it could be borrower or lender. Second is legal relationship between the borrower and lender itself. However in POJK regulation does not specify what kind of agreement in each relationship, especially in relation between provider and lender whether involving trustee or power of attorney in their service agreement.

Why determining legal relationship become so important it's because the P2P lending is a high risk instrument. In P2P the heaviest burden is to regulate the legal relationship between provider and lender. The worst scenario that can be suffered by lenders is when borrower is default. The lender has no guarantee that their money will return (unsecured creditors). Who has liability in this condition is depend on the agreement, whether the provider is jointly liable or not for the debt incurred. The join liability may arise when the service provider is neglect in performing risk analysis of the borrower. In some situation service provider can be act as collecting agency on behalf of lender. Under article 19 and 20 POJK, OJK does not regulate the P2P agreement specifically. OJK only regulates the minimum standard of electronic document that has to be made in each agreement. One of the crucial things is concerning dispute settlement procedure.

3.2. *Internet Payment Gateway System*

There are three categories in Internet Payment Gateway (IPG): based on the money flow, based on sources and based on payment channel. Based on money flow means payment is made from customer account to merchant account directly or through IPG aggregator accounts that kept money temporarily; Based on source: e.g. hard cash, credit cards, debit cards, e-money, personal bank accounts, corporate saving accounts, micro loan accounts and commercial loan accounts; Based on payment channel: e.g. via agents, including through a point-of-sales system and gadget-based channel system, or without agents.

The payment model that will be discussed in this paper is the gadget-based channel system. This model is different with offline system that established before. The offline system relies on payment tool such as credit card, e-money card or any other card that required Electronic Data Capture (EDC) machine. Now fin-tech startup developed online payment system that no longer using conventional tool like card anymore. They ran application on mobile phone platform (android/IOS) and integrate it with online and offline merchant account. Most of gadget-based payment systems have e-money / e-wallet model. This area is not only occupied by fin-tech startup (iPaymu, DOKU, Dimo, Fastpay) but also developed by online marketplace (Bukadompot by Bukalapak, and also mobile phone operator (T-cash by Telkomsel, XL Tunai by Excelcomindo, Dompetku by Indosat Ooredoo).

The gadget-based payment system accommodate in the PBI No. 18/40/PBI/2016, article 1 (6) stipulated that "*Payment Gateway is an electronic service that allows merchants to process transactions payment by using payment tool using cards, electronic money, and / or proprietary channel.*" Moreover in article 1 (7) explain the definition of electronic wallet as: an electronic service to store data of payment instruments between other means of payment by using the card and / or electronic money, which can also be accommodated funds, to make payments.

Under article 2 PBI No. 18/40/PBI/2016 the payment service can be conducted by providers of payment system services and providers of payment system support services. Furthermore PBI No. 18 explain providers of payment system services is Bank or any Non Bank Institution that organizes service payment system activities meanwhile providers of payment system support services is the party providing the Service to the providers of payment system services in order to support the implementation of payment system services activities.

Every IPG providers must obtain license from Indonesian Central Bank prior to operation. The obligation to have license is mandatory for the e-wallet providers when the active users has reached or is planned to reach the amount at least 300,000 (three hundred thousand) users. They also requested to grant an approval from Indonesian Central Bank in regard development of services, development of product and activity, and co-operation with other party.

3.3. *Data Protection and Privacy*

Meanwhile, since Fin-Tech is involving on consumer database particularly on how the consumer data is being processed, there are many threats including the integrity of the consumer data and also their privacy. Below is describing how such threats may appear and the response on PBI and POJK, also questioning how these two regulations able to protect consumers' data and their privacy on Fin-Tech services.

The technology used in Fin-Tech is commonly called as Blockchain. Blockchain is a database or a ledger that maintains a continuously growing list of data records or transaction. In a nutshell, Blockchain is a new tool to transmit and encrypt any kind of transaction on the web which has centralized authority to validate the action. The transmitting and encryption works by processing the database. Nowadays, to show how enormous the database that used by the start-up technology based

including Fin-Tech, is no longer as simple as the collection of database nonetheless big data. The main characteristics of big data are very large, high of data rates and data types. The issue in this regard is that the collecting, processing and analyzing.

Therefore big data not only provides benefits for individual and business entities but on the other hand also lead to legal problems if it is not managed properly. One of big data's legal issues is data security. This issue is related to the rampant level of hacking or other cyber-crimes committed by irresponsible individuals. In addition there is also the issue on data ownership or intellectual property rights over the data because there is no certainty of the concept that explains the ownership of the data. Another legal issue is privacy protection. Data is certainly inherent in the information that can refer to the privacy of the subject's data, so with the massive processing of big data in various jurisdictions cause privacy of subject data may be easily recognized.

The risk on how should data be treated can be seen that the centralized authority, in this regards is a Fin-tech services provider, in several steps as collecting, processing and analyzing. Even though the technology used in Fin-tech such as Blockchain technology able to encrypt some actions on the web, there is still potential threat in cyberspace. The cyber risk and cyber security is the main issue concerning consumer's data protection; cyber-attacks can be the potential threat of system or data confidentiality, integrity and availability. Moreover, those potential cyber-attacks are becoming more frequent and more costly for societies more broadly. And this financial sector is one of the prime targets of cyber-attacks because it represents where the money is or be a symbol of capitalism that lead to cyber-attacks that might have some politically motivation.

Therefore, in the concept of data protection in associated with mitigation of the risk, it should accommodate how to identify, to protect, to detect, to respond and to recover consumer data. Thus the provider of Fin-Tech services should comply such principles. At least there are three issues on data security, its integrity, confidentiality and availability.

The attack on data integrity in Fin-tech a service will affecting in the accuracy of subject data or in this regard is Fin-Tech user. The data may encounter what is so called failure system that leads to the changing of data ownership or destroying the information itself. As a result, the financial data or simply one of personal information may be used illegally.

Besides attack on its integrity, Fin-Tech user also may experience the attack on data confidentiality. This attack happens when unauthorized access to such sensitive data transform to access the most credentials data of Fin-Tech user to be used to commit fraud or identity theft yet to get benefit from Fin-tech services both the lending system or the payment scheme. Last, the issue on data availability, the Fin-tech service provider may encounter disruption or delay in its operation system. Some Fin-Tech service provider may using different technology and different internet provider, the failure system on how data should be available to be accessed by Fin-Tech in real time will be significant to support the cycle of execution of trades or another online financial activity. Otherwise, it will encounter loss for this kind of online business especially online transaction.

While the issue on consumer's privacy may be seen on the dependency on how data processed by Fin-tech services provider is resulting algorithm that may be used for further prediction on consumer's online behavior. The algorithm itself is able to show the consumer's movement on the web, thus it will be analyzed to predict the consumer behavior in the future.

In this regards, the movement of consumer can be seen by the supporting of cookies technology. Data producing activity recorded by cookie technology is used in Fin-Tech services or other media that is attached to the Internet network. It is often used by the sellers and online service providers to capture the opportunity that there is an online activity of consumers with particular preferences. This preference is collected by categorizing some personal data of consumers who have done various searches for example related to the products offered in various platforms online marketplace system.

In the other side, recording personal data from these consumers makes it easy to recognize the consumer profile by selling desired products exactly and without effort. Furthermore, the cookie technology used for the providers of the online marketplace system platform for the collection of various kinds of individual product search preferences is used as a database and interest from potential customers and knowledge for providers of online marketplace system platforms and other online services. This is referred to as the collection and use of personal information for marketing purposes. [12] Terribly, the consumers do not know nor realize that their personal data has been collected for business purposes. Thus this kind of collection data activity of personal data leads to privacy violation.

Data protection is generally defined as laws designed to protect personal information whether collected, processed and stored that are intended to be part of a filing system. Personal Data Protection is an effort and means in providing legal certainty guarantee to individuals related to the utilization of personal data. Furthermore, what is meant by Personal Data is any information relating to the identification or identification of a person's data subject either directly or indirectly, in whole or in part by basing on identification of numbers or one and / or some special factors such as physical appearance, psychic, Economic circumstances, as well as social and cultural identity.

In the delivery of Fin-tech services, the protection of consumer personal data is important in order to build consumer confidence. In Indonesia, the provision of protection against personal data is not yet able to answer about comprehensive arrangements. Referring to the Constitution itself, it is not explicitly regulated on the protection of data, but rather explicitly regulates the protection of human rights whereby the inadvertence is concerned with personal data or information. But it can be implicitly found in articles 28 F and 28G (1) which regulates the freedom to store information and protection of personal data or personal information that extends to that data.

As argued by Rosadi, the principles of data protection and its regards to consumer privacy should be fulfilled by the services provider in order to protect their rights on the highest level. Those principles are collection principle, restrictions principle, data quality principle, goal specifications principle, security measures principle, openness principles, individual participation, and accountability principle. Further, both PBI and POJK merely focused on how the mechanism should be fulfilled by the provider but neglecting the role of user or consumer as an individual that should be fulfilled their rights and how to protect their privacy as guaranteed on Constitution and related regulation.

Focusing in this issue, on the PBI, the principles of data protection can be found on Section 5 Article 24 (2) and Article 25. Those principles are right to be informed, justice, reliability, transparency, personal data protection and dispute resolution mechanism. Why is it considered as on adequate level? Basis principle of national application on data protection may meet 7 principles: 1) collection limitation principle, 2) data quality principle, 3) purpose specification principle, 4) use limitation principle, 5) security safeguards principle, 6) openness principle and 7) individual participation principle. These principles should be portrayed on its every level on the article that contains data protection. In the fact, there is no further elaboration on how consumer should be informed on how their data will be processed and used by the Fin-tech provider. Yet, the participation of consumer might be appearing to be involved in the processing level.

While in POJK the principle of data protection is emphasizing on data mitigation since it contains how the provider should provide data center as stated on Article 25. However, the data mitigation is not sufficient since there is an absence of the right of the consumer to know of their individual participation particularly on how their personal data will be processed and used in the future. Regarding the openness principle, the consumer might also encountered by the absence of the role of data processor and how far the participation of the consumer regarding their personal data.

Another response of Indonesian Government in respecting personal data also can be found on Law Number 11 Year 2008 on Information and Electronic Transactions and its derivation namely Peraturan Pemerintah Nomor 82 Tahun 2012 tentang Penyelenggaraan Sistem Transaksi Elektronik (PP PSTE/Government Regulation Number 82 Year 2012 on Organizing Electronic System and Transaction) and Peraturan Kementerian Informasi dan Komunikasi Nomor 20 Tahun 2016 (Perkominfo No.20/2016/Regulation of Ministry of Informatics and Telecommunication)

In accordance with such regulations, the P2P provider, however, should comply not only for the protection of personal data and their consumer's privacy in every level of data processing such as collecting, analyzing, storing, opening, and removing, also able to provide to access on those every level of processing. Furthermore, providing internal regulation on data protection as stated on Article 5 (1) Perkominfo No. 20/2016.

4. Conclusion

The approach by Indonesian authority regarding fin-tech start-up especially P2P lending and IPG is adopting Regulatory Sandbox model. However, implementation of the regulatory sandbox model, it lacks of minimum restriction regarding the risk exposure for consumer and there is no limit to when this regulation will apply for fin-tech start-up. Simultaneously, the development of Fin-tech services in Indonesia is facing new challenge particularly on the issue of consumer's data protection since Indonesia still does not have an adequate set of regulation concerning data protection. Although the government responded by issuing two regulations on Fin-tech services, the nature on Fin-tech services which is demanded on flexible business ecosystem, including its mechanism on processing consumer's data still needed to be equipped by an adequate protection on consumer's data, also to support consumer confidence in this business. Therefore, the government approach on its Sandbox policy towards Fin-tech services should be more strengthened by involving multi stakeholder.

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