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Financial Technology in Indonesia: Disruptive or Collaborative?

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Abstract

Financial Technology is a combination of the terms financial services and information technology. Broadly speaking, Financial Technology is defined as a company that generates revenue through the provision of technology-based financial services. Indonesia as one of the developing countries experienced an increase in economy in the last two decades, Indonesia's financial industry has shifted due to the fast technology growth and development. This pradigm shift poses new challenges for regulators and market participants in balancing the potential benefits of innovation with the potential risks. It takes the intervention of regulators and business actors of Financial Technology to support the development of Financial Technology without attenuating the pace of innovation.

Keywords: Financial Technology, innovation

1. Introduction

A phenomenon that transforms an existing system and / or market, which can offer practical value, easy to access, comfort, and cost effectiveness is called Financial Technology. Financial Technology also known as FinTech is a new sector in financial industry that combines technological and finance functions. Utilization of technology in the field of finance to facilitate trades, corporate business, or interaction and services provided to the retail consumer.

Broadly speaking, Financial Technology can be defined as a technology application in finance. The term Fintech does not refer to any institutional or financial or payment definitions. However, the relationship between finance and information technology has been established for a long time and has evolved over three distinct eras.

Wilson (2017) states that Financial technology is a company that primarily uses technology to generate revenue through providing financial services to customers..

Other sources explain that Financial Technology is a dynamic segment at the intersection of the financial services and technology sectors where technology-focused start-ups and new market entrustments are being provided by the traditional financial services industry (PWC, 2017).

Meanwhile, according to Bank Indonesia (2017) states that the definition of Financial Technology is a phenomenon of fusion between technology and financial features that transform business models and a weak barrier to entry which as regulated financial institutions.

The same thing is also described by Kominfo (2017) that Financial Technology is a fusion phenomenon that occurs between technology with financial features that change the business model and the weakening of barrier to entry.

So it can be concluded that Financial Technology is a contraction of finance and technology that creating value by providing financial services through the engagement of technology.

Indonesia as one of the developing countries has huge potential in the development of Financial Technology. The growth of Financial Technology in Indonesia is greatly assisted by support from banks and governments. For customers who are conventional, Financial Technology business can be considered the key to bankruptcy. However, on the other hand, the involvement of Financial Technology is actually able to collaborate well with the bank. This will widen the financial services network for the Indonesian population, thus increasing the number of customers and the financial inclusion of Indonesia will grow.

Nevertheless, to date, the carrying capacity of Financial Technology ecosystem in Indonesia is considered inadequate. As the new Financial Technology is known in Indonesia, governments and regulators in technology and finance must adapt in terms of policy and regulatory adjustments as a form of risk mitigation. Other challenges faced include the presence of gaps between the desires of investors with the characteristics of the Financial Technology itself, especially related to the projected gain gained.

2. The Evolution of Financial Technology

Financial Technology 1.0 (1866-1987): From Analogue to Digital

In the late 19th century, finance and technology had become the first period of financial globalization that lasted until the beginning of the first World War (Hong Kong). In this era, technology has an important role in conveying information across borders, including financial information, such as transactions and payments around the world. J.M.Keynes quoted via (HongKong) describes the relationship between finance and technology as follows:

"The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quality as he might see fit, and reasonably expect their early delivery upon his door-step; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble".

Furthermore, technology developed rapidly during World War I, especially in the field of Information Technology and Communications. This is evidenced by the emergence of several technology-based companies such as International Business Machine (IBM) in 1967.

In 1967, the community was introduced by ATM machines that became a transition from analogue to a digital industry. Companies engaged in financial industry began to use technology in carrying out its operational activities, such as BACS (Bankers' Automated Clearing Services); US CHIPS (Clearing House Interbank Payments System), SWIFT (Society of Worldwide Interbank Financial Telecommunications) as a tool in the interconnect domestic payments system across borders.

The growing use of technology in operational activities, replacing paper-based mechanisms, becomes computerized which automatically increases the likelihood of risk occurring, both internally and externally.

Financial Technology 2.0 (1987-2008): Development of Traditional Digital Financial Services.

In this era, financial institutions maximize the use of IT for internal corporate activities, gradually replacing most forms of paper-based mechanisms. In 1970, technology grew with the emergence of a system that enabled investors to stock electronically. n the 1980s, the Bank began to update the software, so that the data can be stored safely. In the 1990s, the usage of nternet encouraged the creation of new business models in the Financial Technology sector. As a result, emerging websites aimed at retail investors, replacing the phone-driven retail stock brokering model. In this era, ATM is one of the biggest innovations in the field of finance, although technological innovations that occur in the financial industry sector is still focused on the bank side, without considering the customers needs'. This is evident by the use of Core Banking System as one of the systems used by the majority of Banks.

The presence of Internet in the early 1995 shifted the Bank to innovate that allows customers to stay in touch virtually. Thus, in 2001, at least 8 banks in the US have used e-banking system with an online customer number of 1 million customers (Hong Kong). So in 2001, the company's spending on technology increased dramatically. This is because the Bank began to shift the internal process system and interactions with their customers become fully digitalized.

Based on this, several regulations are required to protect the rights of the bank and the bank's own consumers. In Hong Kong, the Chief Executive of the Hong Kong Monetary Authority ratified the regulation in 1999. However, in Indonesia, Bank Indonesia circulates the 6/18 / DPNP Circular Letter on applying for risk management to bank service activities via internet (internet banking) by 2014.

The Letter (Surat Edaran) requires the Bank to apply risk management as set forth in a written policy, procedures and guidelines covering the active supervision of the Board of Commissioners and the Board of Directors; Security control; And risk management in particular legal risk and reputation risk.

Financial Technology 3.0 (2009-present): Democratizing Digital Financial Services.

The Global Financial Crisis that occurred in 2008 had an impact on banking and financial sector. Meanwhile, according to (Hong Kong), Global Financial Crisis has had two major impacts in terms of public perception and human capital. First as the origin of the financial crisis became more widely understood, the public perception of bank deteriorated. Secondly, general developed a distrust of the traditional banking system. On the other hand, many financial professionals either lost their jobs or were now less compensated. And also the newer generations of highly educated financials.

In addition, an increasing number of regulation of incumbent players and the social and behavioral changes in the customers. Communities seek funding alternatives that are more democratic and transparent and able to provide more value in every transaction made. In addition, the increasing need of consumers to access their financial accounts in managing their investments as well as simplify the transactions of their phones, has led to the new applications and also to an increase need of security for their online transactions (Bucharest).

According to (Cui and Wu, 2016), changes in behavior from customers will encourage the development of new products. Older customers tend to behave passively in decision making. However, changing the paradigm of thinking will change the behavior of new customers, expect to receive solutions, that can be adapted to their needs and investment goals (Nicoletti, 2017). These changes require the company to turn the business model into customer oriented, where the products and services match the expectations of the users, and if its possible via digitized platform.

From the external side, many Financial Technology start-ups targeting the younger generation become the target market who spend more time using the internet. However, on the other hand, the younger generation has only relatively fewer assets than older customers. The gap is particulary wide with resoect to the oldest generations who tend to have substantial financial wealth and capability.

To be able to answer the dilemma, the company must be able to innovate in various ways to transform their customer relationship and offer new approaches in financial services.

3. Methodology and Data

The methodology used in this study is the literature review. Literature review is a description of a theory, findings obtained from various sources to be used as a basis / reference in completing a problem.

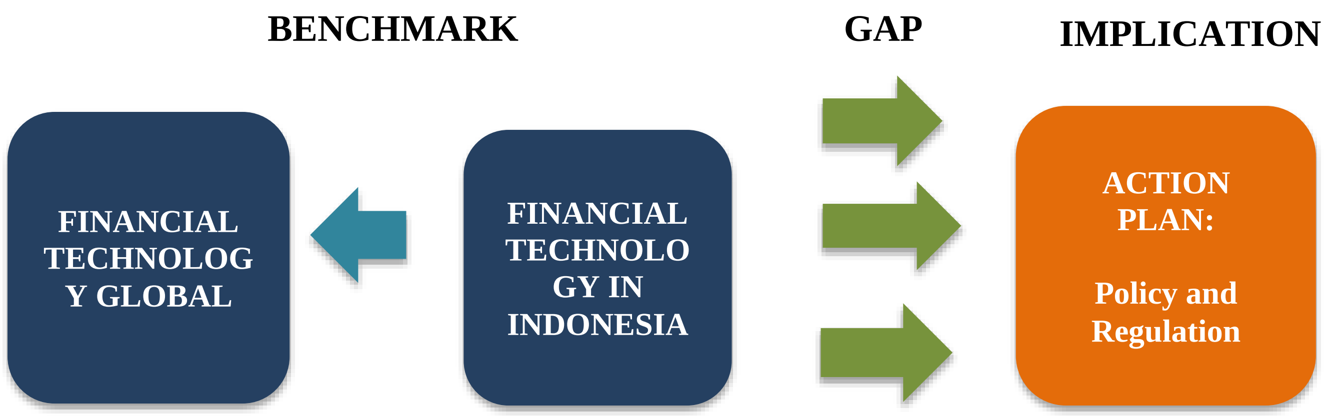

Figure 3.1
Research Framework

Based on the above picture, the early stages of this research are data collection and previous research on Financial Technology globally, covering the history and implications of certain countries. Furthermore, data collection and analysis of Financial Techology in Indonesia, including case studies of opportunities and challenges faced by Financial Technology in Indonesia. The results of the analysis are used in the basis of suggestions for governments, financial institutions and OJK as regulators in Indonesia.

4. Financial Technology in Indonesia

According to Hong Kong (2016), the development of Financial Technology in developing countries is supported by several factors that become characteristic of developing countries, namely (1) young digitally savvy populations equipped with mobile devices; (2) 60% of the world will be located in Asia by 2030; (3) inefficient financial and capital markets creating opportunitioes for informal alternatives; (4) shortages of physical banking infrastructure; (5) behavioral pre-disposition on favor of convenience over tryst; (6) un-tapped market opportunitoes (1.2 billion people without bank accounts); And (7) less stringent dat aprotection and competition.

But on the other hand, the potential opportunities are balanced against the challenges that will be faced. Investors feel there is large information asymmetries in the market activity, Asia Pacific to be specific. In addition, the high barrier to entry for retail banking with a regulation that is less flexible makes investors prefer to invest in developed countries.

Indonesia as one of the developing countries with the largest population has enormous potential in developing the industry of Financial Technology. Financial

Services Authority as one of the regulator in Indonesia argues that Financial Technology in Indonesia has many opportunities, due to the existence of huge amount of financing gap, imbalance of financing distribution; The low level of financing inclusion, the low rate of velocity of money, the low level of SME export access; And the increasing on the internet technology and mobile phone usage in Indonesia.

The value of Financial Technology transaction in Indonesia is estimated to reach USD 14.5 billion or about 0.6% of total global transactions estimated at USD 2.355.9 billion (Kominfo, 2016).

Figure 4.1 Financial Technology transaction in Indonesia

Survey conducted by the Association of Internal Services Users Indonesia (APJII) states that of the total population of Indonesia, sebanya 88.1 million are internet users. The majority of Internet users aged 18-25 years. However, of all internet users, 65% of them are internet users on the island of Java (APJII, 2016)

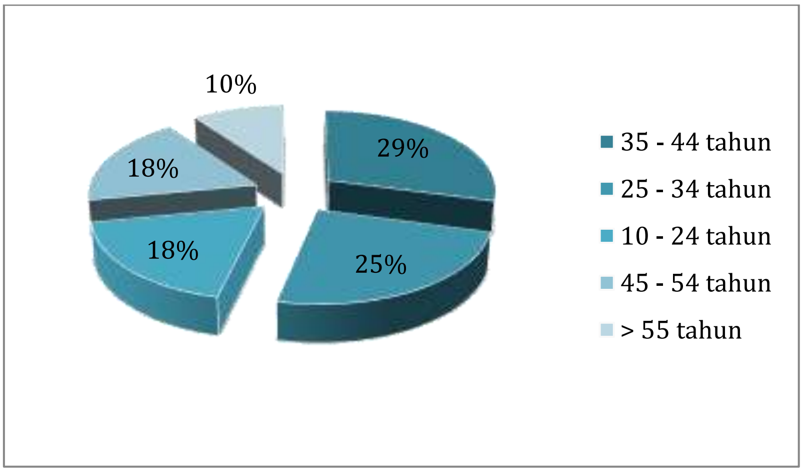

Figure 4.2 Internet user in Indonesia

With the growing number of technology-based companies in Indonesia, an association of financial companies in Indonesia called Fintech Association of Indonesia (AFI) was established in 2015. The Financial Technology Indonesia Association is expected to be a forum for Financial Technology and investors To share knowledge and equate the vision of the Indonesian economy. In addition, AFI also serves as a bridge of communication between Financial Technology institutions that exist abroad.

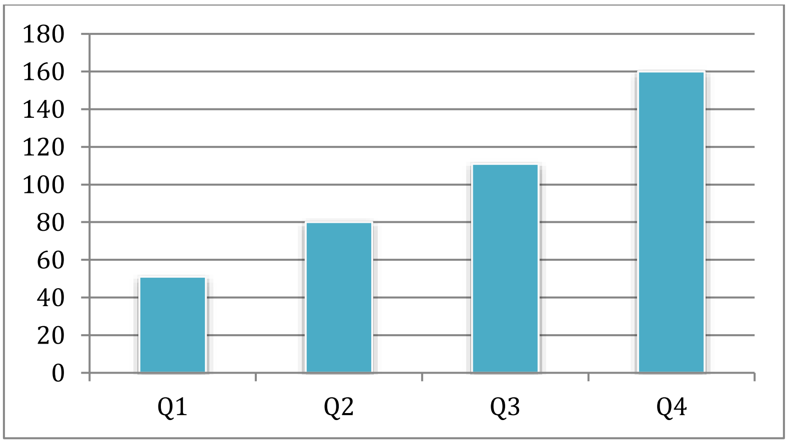

Figure 4.3 Number of Financial Technology in Indonesia (2016)

The presence of Financial Technology in Indonesia must be addressed properly by OJK as an institution that has a function as a regulator in Indonesia. In this case the OJK needs to take the right attitude to maintain a balance between the role of formal and informal financial sector, and risk mitigation through proper regulation without having to turn off the rate of innovation in the financial services sector.

5. Conclusion

The development of Financial Technology in Indonesia will have a very positive impact on the Indonesian economy, such as encouraging equitable distribution of the welfare of the population; Assisting domestic financing needs; Encourage the distribution of national financing; Improve national financial inclusion; And encourage the ability of UMKM which is still considered low.

It can not be denied that the rise of Financial Technology in Indonesia will also give social impact, such as the change of mindset of conventional financial institution. Conventional financial institutions are considered traditional financial institutions that are not flexible and can not meet the needs of its customers.

Thus, to optimize the role of Financial Technology, it is necessary to intervene from financial institutions and business players of Financial Technology incorporated in the Association of FinTek Indonesia to collaborate on the information path by utilizing available data to strengthen the distribution channels that have been built up. Second, product collaboration that can meet the needs of consumers. It takes a product that is useful for both parties.

In addition, it is also necessary to intervene from JK as a regulator in Indonesia should be able to create regulations that can protect the rights of consumers and companies without hampering the pace of innovation. In addition, OJK also needs to develop a strategic policy that ensures that risks from Financial Technology in Indonesia can be mitigated and provide fair and equitable protection for communities.

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