

# FINANCIAL TECHNOLOGY (FINTECH) A NEW TRANSACTION IN FUTURE

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## ABSTRACT

The development of technology is so rapidly. The existence of technology is utilized for various business field. Telecommunication, book, film, transportation and now financial industry compete to take advantage of technology. Financial industry has long played in technology, often called with FinTech (Financial Technology). Credit cards, ATM, Bank mainframe computer are some of their products that utilize technology. The development of FinTech make a lot of start-Up glance at this field. In Indonesia, FinTech also quite developed. This research is focus on how the practise of FinTech in Indonesia. Where Indonesia still needs some preparation such as the mature of technology, resources, users and regulation.

**Keywords:** Technology, Financial Technology, Banking

## 1. INTRODUCTION

Nowadays, technology is growing so rapidly. Various industries are competing to take the advantage of these technological developments. Through an application, the public as consumers can transact easily. As in the telecommunication industry, there are BlackBerry messenger, WhatsApp, telegram, then the book industry such as amazon. The film industry also took advantage of technology as done by Netflix. Through smatphones, tablets, PCs, or smartTV, people can enjoy movies without ads easily. So does the transportation industry. Through Go-Jek, Grab and Uber application, people can order transportation with easily and cheaper price. Now, technology is also penetrated in the financial industry. Through financial technology people can do all the activities of financial transactions easily.

Financial technology ar commonly abbreviated with FinTech, actually not new in the financial industry. Figure 1 dibawah ini menggambarkan the FinTech evolution:

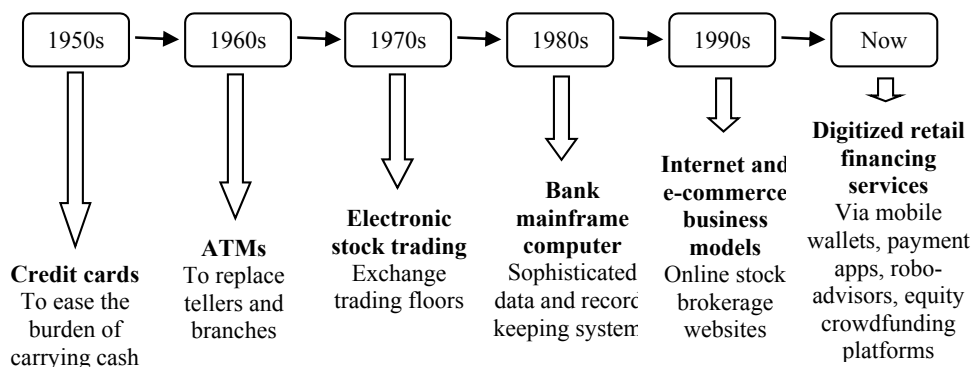


Figure 1. The Evolution of Financial Technology  
(Image is processed based on Desai, 2015)

As shown in Figure 1 above, the current FinTech through digitalization is done indefinitely. People easy to access to private and alternative investment opportunities and online lending platforms. So, these Fintech services can replacing banking services completely (Desai, 2015).

Because of the services of FinTech are cheap, fast, can be done anywhere, anytime and any device causing this business grow quickly. In Indonesia, already a lot of start-up that penetrated this business. So, this research focuses on how the FinTech practise in Indonesia.

## 2. THE FRAMEWORK OF RESEARCH

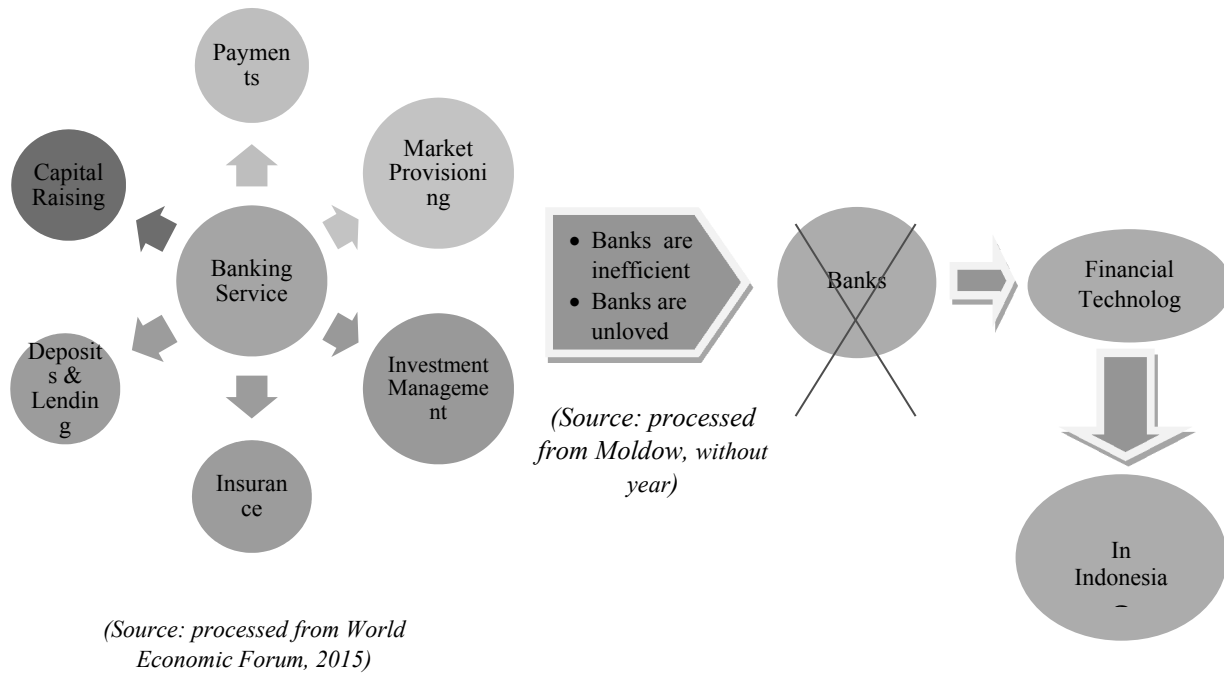


Figure 2. The Framework of Research

This research is descriptive qualitative research. Primary data used in this research through literature study. The framework of research starts from where the financial services that usual performed by banks are now easier with technology. Services such as payment, deposits and lending, investment management, are getting easier, cheaper, and faster without need to come to the bank, but it can be done anywhere, anytime and any device through technology. So, it can be said the customer no longer need the bank anymore. The technology called FinTech has penetrated into Indonesia. Then how the practise of FinTech in Indonesia?

## 3. THE RESULT AND ANALYSIS

### 3.1 The FinTech, Definition and History

According to IOSCO (2017) “the term of FinTech is used to describe a variety of innovative business models and emerging technologies that have the potential to transform the financial service industry”. Still according to them, the FinTech landscape mapped across eight categories, there are payment, insurance, planning, lending and crowdfunding, blockchain, trading and investment, data and analytics, and security.

As has been suggested in the introduction that FinTech actually is not a new in the financial industry. In the preliminary has been mentioned that FinTech journey began in the 1950s but if pulled back again, since 1865 FinTech has begun. If described would be like the following:

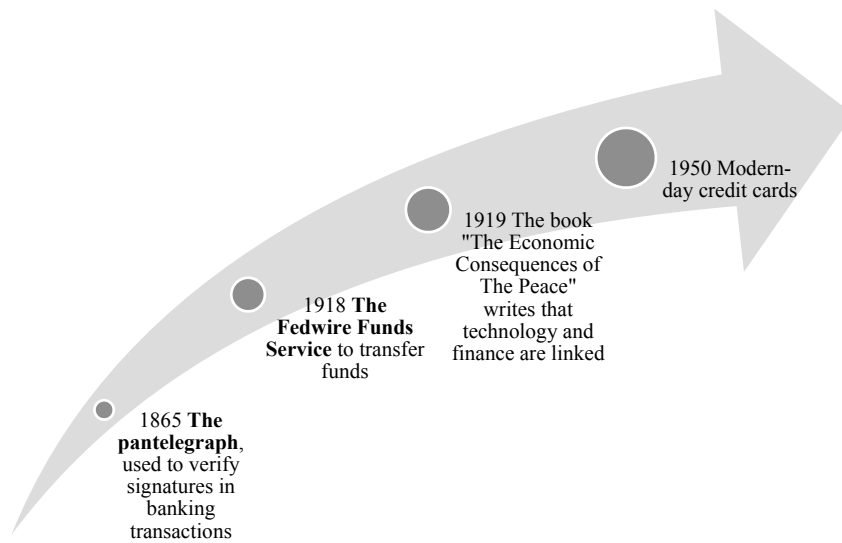


Figure 3. The Evolution of Financial Technology before 1950s  
 (Image is processed based on Zimmerman, 2016)

### 3.2 The FinTech Services and Comparison Process With Traditional

Each company that apply FinTech has a different kind of services. The following Table 1 is example of Fintech Services.

Table 1. Table of FinTech Services Examples

No	Services	
	World Economic Forum (2015) 6 categories	IOSCO (2017) 8 categories
1	Payments	Payments
2	Insurance	Insurance
3	Deposits & Lending	Lending & Crowdfunding
4	Capital Raising	Planning
5	Investment Management	Trading & Investment
6	Market Provisioning	Blockchain
7	-	Data and Analytics
8	-	Security

Belows are comparison process between traditional and non traditional (FinTech) based on World Economic Forum (2015)

#### Payment

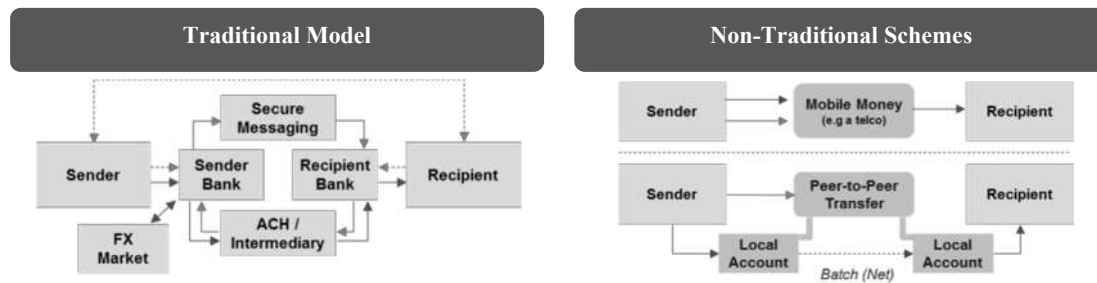


Figure 4. Traditional Model and Non-Traditional Schemes of Payment

**Insurance**

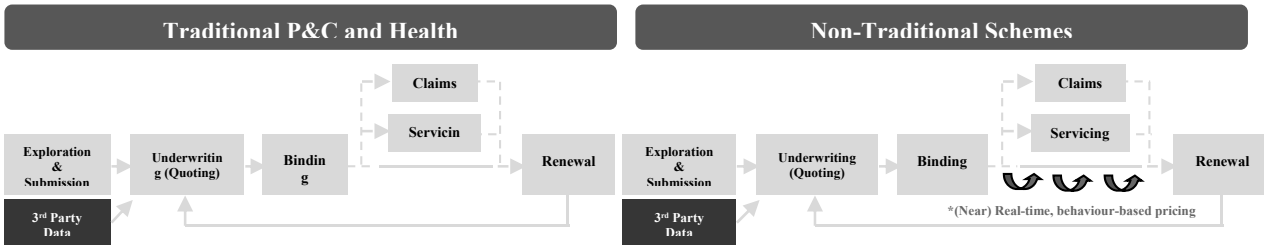


Figure 5. Traditional Model and Non-Traditional Schemes of P&C and Health

**Description:**

\*In non traditional schemes, the process use telematics. Telematics insurance product leverage the GPS technology and wireless communication to enable auto insurers to collect usage and behaviour data of their customers in real time or near real time (World Economic Forum, 2015).

**Deposits & Lending**

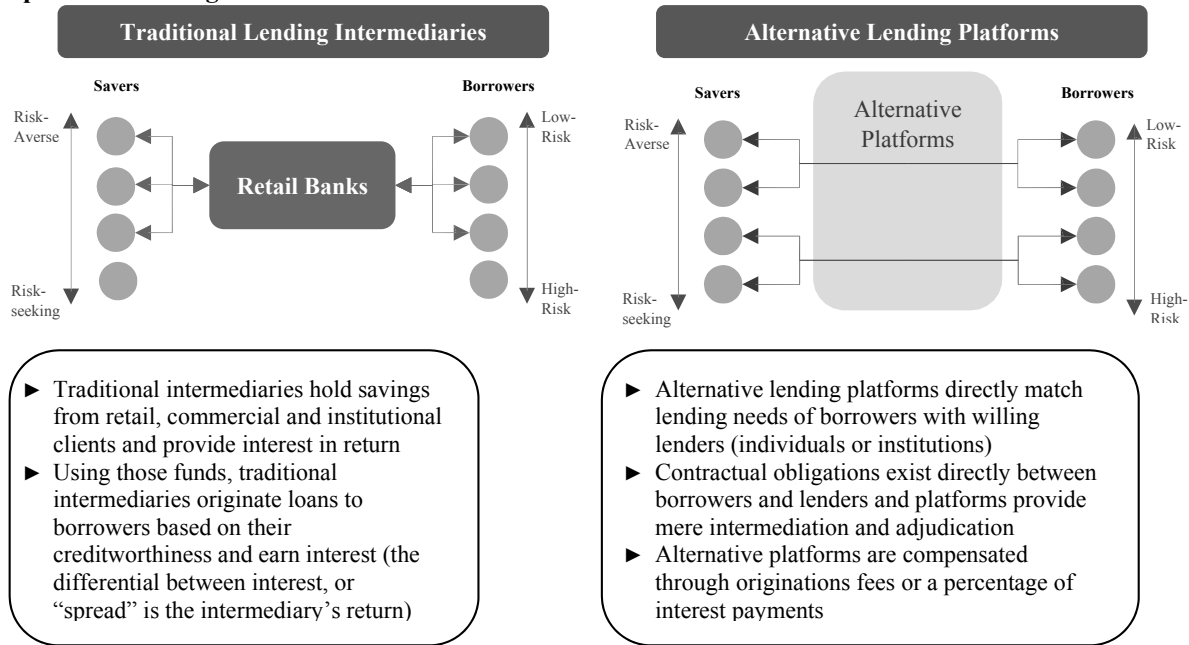


Figure 6. Traditional Lending Intermediaries and Alternative Lending Platforms

**Capital Raising**

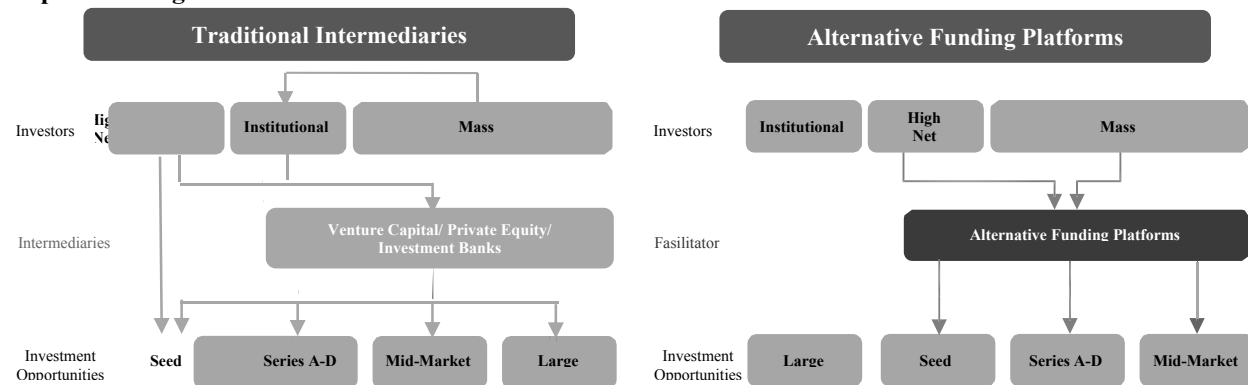


Figure 7. Traditional Intermediaries and Alternative Funding Platforms

**Investment Management**

(Lowering bars to act as investment expert)

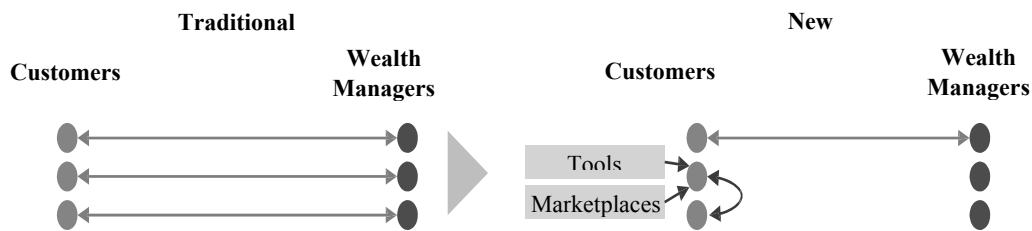


Figure 8. Traditional and New Investment Management

**Market Provisioning**

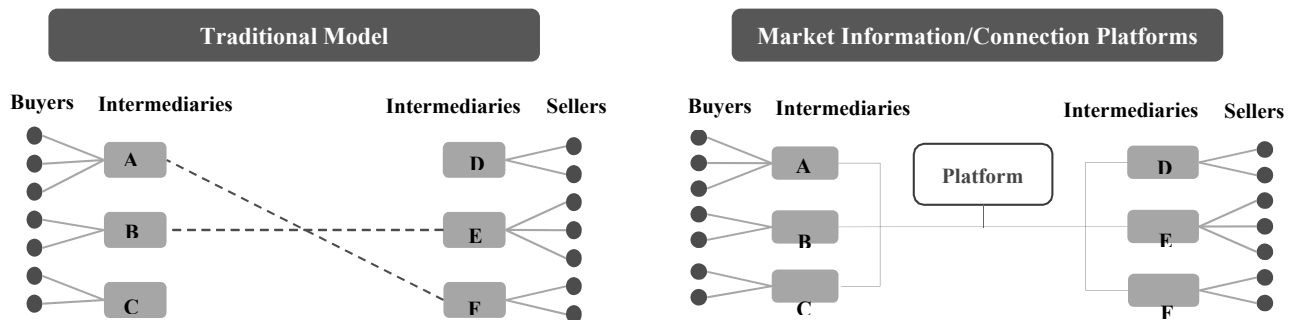


Figure 9. Traditional Model and Market Information/Connection Platforms

**3.3 The Find Tech in Indonesia**

Indonesia is a country that quite a lot as internet users. In 2016 amount 104.2 million and in 2021 estimated amount 144.2 million. Its various uses, to access social networking sites, instant messaging, look up content or search for information until it just for play or stream music (Fintechnews.sg 2016). So, it is used by the entrepreneurs FinTech that commonly called with start-up. The following is Indonesia FinTech based on Fintechnews.sg (2016)

Table 2. Table of FinTech Services Examples

No	Type	Name (Founded)
1	Personal Finance	Ngatur Duit (2010)
2	Investment	Stockbit (2012), Bareksa (2013)
3	Payment	Kartuku (2001), Doku (2007), Dompetku (2008), Tcash (2011), Mimopay (2012), Tapp (2013), Veritrans (2013), XL Tunai (2013), Padipay (2013), Mandiri E-Cash (2013), Dimo (2014), Xendit (2014), Ipaymu (2014), Kesles (2015), Veryfund (2015)
4	Point Of Sale Systems (POS)	Pawoon (2013), Omega Pos Cloud (2013), Dealpos (2013), Moka (2014), Olsera (2015)
5	Lending	Mekar (2013), Taralite (2015), Pinjam (2015), Uangteman (2015), Kredivo (2015), Investree (2015), Modalku (2016)
6	Accounting	Akunting Mudah (2013), Jurnal (2014), Jojonomic (2015)
7	Comparison	Halomoney (2013), Cekaja (2013), Rajapremi (2013), Duit Pintar (2013), Pasarpolis (2014), Atur Duit (2014), Cekpremi (2014), Cermati (2015)
8	Crowdfunding	Mapan (2009), Wujudkan (2012), Kitabisa (2013), Gandeng Tangan (2015)
9	Cryptocurrency	Bitcoin.co.id (2013), Quione (2014)

The existence of FinTech in Indonesia still creates financial fragmentation not financial inclusion. It is as written by Kristy (2017) such as

***“a line of EDC machines at a payment counter potentially creates confusion for both cashiers and their customers. Additionally, banks and companies are now saturating the market with electronic wallet (e-wallet) products, leaving consumers with too many similar choices”.***

She continued that the government also regulate the introduction of identity verification using digital signature methods, and the implementation of this program is expected to take place in the second quarter of 2017. But this program will take longer due to the unpreparedness of the institution that will validate the digital signatures, referred to as certificate authority-CA (Kristy, 2017).

This is different from India. The government managed to register 1.09 billion people or 85% Of the country's population into its system with the project called Aadhaar. Aadhaar utilizes a single identity number that contains the biometric and demographic data of its users stored in a centralized and online database. Aadhaar and its database are connected to various stakeholders, including government and private institutions, to allow various transactions to be carried out easily, quickly and securely with a fingerprint scan (Kristy, 2017).

For that, required various levels of preparedness, not only about the mature of technology, but also in resources, and the users considering that in Indonesia is still a lot of lower class people who are still “Gaptek”. Laws are also required to enable equitable distribution of business, do not let turn off the existing businesses, in this case such as banking.

#### 4. CONCLUSIONS

FinTech in Indonesia has been growing for a long time. Many start-up have developed FinTech. Based on the data and discussion that has been presented. The development and utilization of technology must be followed by the mature of technology, resources and the users. The laws are also regulated so as not to turn off other similar industries such as banking.

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