Financial Technology in The Development of UMKM

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**ABSTRACT**
Digital technology is currently the main capital needed by industry players in developing their business. For the financial sector, technological innovation is not a new development for the industry. In financial technology (financial technology) it is known as FinTech. FinTech activities in financial services can be classified into 5 (five) categories, namely Payment, transfer, clearing, and settlement (payment, clearing and settlement). Micro, Small and Medium Enterprises (UMKM) have a big role as an effort to increase economic development in Indonesia. The role of FinTech in the development of MSMEs is to play a role in increasing financial literacy, increasing digital entrepreneurship and sources of business financing. One of the hopes of MSME players in business development is by accessing financing through Fintech in the form of Peer to Peer Lending (P2PL) after being inaccessible by banks.

**Keywords:**
Financial Technology, UMKM

1. **Introduction**

Digital technology is currently the main capital needed by industry players in developing their business. Entering the industrial revolution 4.0, the industry has experienced developments in terms of technological developments. This development has a positive impact on a country, namely an increase in the country’s economy towards a digital economy.

The digital economy in Indonesia can have a positive impact, namely the emergence of new business models, integration between business sectors and changes in business models in existing sectors. There are four sectors that have the potential to develop, namely the financial sector, the culture, tourism and creative economy sectors; agricultural sector and agro-logistic sector.

The existence of the industry, especially Financial Technology, aims to make it easier for people to access financial products, simplify transactions and also increase financial literacy. It is not surprising that in its evolution, this industry is increasingly attracting many business actors, both within the financial and financial industry, as well as those outside the industry.

In an era that is all digital like today, technological developments have brought changes to the transaction system from offline to online. In addition to using the debit system, digital transaction payments also use electronic money. Sourced from Bank Indonesia, digital money, also known as electronic money, is a payment instrument that is issued on the basis of the value of money deposited in advance to the issuer where the value of the money is stored electronically in a medium such as a server or chip managed by the issuer so that it is not a deposit as referred to in the law that governs banking.

For the financial sector, technological innovation is not a new development for the industry. In financial technology (financial technology) it is known as Fin-Tech. FinTech activities in financial services can be classified into 5 (five) categories namely Payment, transfer, clearing, and settlement (payment, clearing and settlement), according to (Bank Indonesia, 2020) This activity is closely related to mobile payments (either by banks or non-bank financial institutions), electronic wallets (digital wallets), digital currencies (digital currencies) and the use of distributed ledger technology, technology, DLT for the payment infrastructure.

Financial Technology is the use of technology in the financial system which results in new products, services, technologies and / or business models and can have an impact on monetary stability, financial system stability and / or efficiency, smoothness, security and reliability of the payment system. On the one hand, the development of financial technology has proven to be of benefit to consumers, business actors and the national economy, but on the other hand it has potential risks which, if not properly mitigated, could disrupt the financial system. (Bank Indonesia, 2020)

The development of Fin-Tech has created creative disruption for Indonesians who are not ready to accept changes in economic activity. On the other hand, Fin-Tech provides new opportunities for the economy to increase its economic activity more efficiently and effectively. Fin-Tech has helped finance small and medium enterprises that lack access to banking. With the existence of mature regulations, it encourages MSMEs to develop their businesses by making easy transactions through Fin-Tech. (Rahardjo & Ikhwan Khairu and Siharis, 2019). Directly or indirectly affect the activities and development of MSMEs.

Micro, Small and Medium Enterprises (MSMEs) have a major role in efforts to increase economic development in Indonesia, economic growth and open up new jobs. At present, the number of MSMEs in Indonesia continues to increase and develop with various sectors. With the improvement and development of MSMEs, it is hoped that they can increase the Gross Domestic Product (GDP) and absorb more new workers to reduce unemployment and poverty. The definition of UMKM is a term that refers to a type of business that is established by individuals and has a net worth of at most IDR 200,000,000.00 (excluding land and buildings) (Rizal, Maulina, & Kostini, 2018). Therefore, the role of Financial Technology is very important in developing MSMEs in Indonesia.

In previous studies discussing the role of Fintech in Micro, Small and Medium Enterprises. The case studies in this research are MSMEs in three districts; there are Pekalongan, Batang and Pemalang. From the results of the analysis, the development of Fintech carried out by financial institutions, be it banking, savings and loan cooperatives and other financial institutions, can increase financial literacy and financial inclusion in MSMEs. (Winarto, 2020)

Bank Indonesia and the Financial Services Authority (OJK) are two government institutions that have the authority to monitor the development of the Fintech industry. Bank Indonesia focuses on regulating and supervising Fintech players in
the payment financial services sector, while OJK focuses on Fintech players. In the field of financial services (lending), Bank Indonesia Regulation number 19/12 / PBI / 2017 explains that FinTech is the use of financial system technology that produces new products, services, technology and / or business models and can have an impact on monetary stability, financial system stability, efficiency, smoothness, security and reliability and payment system. (Bank Indonesia, 2020)

2. Theory

2.1 Financial Technology (Fintech)
Financial Technology is the use of technology in the financial system which results in new products, services, technologies and / or business models and can have an impact on monetary stability, financial system stability and / or efficiency, smoothness, security and reliability of the payment system. On the one hand, the development of financial technology has proven to be of benefit to consumers, business actors and the national economy, but on the other hand it has potential risks which, if not properly mitigated, could disrupt the financial system. (Bank Indonesia, 2020)

The financial technology (Fintech) industry is one of the service methods; the first is Ernamsa Santi, supervision of financial services authorities on financial technology (Financial Services Authority Regulation number 77 / pojk.01 / 2016, Diponegoro law journal, Volume 6, Number 3, Year 217 finance which is gaining popularity in today's digital era. And digital payments are one of the most developed sectors in the FinTech industry in Indonesia. This sector is what the government and the public hope most to encourage an increase in the number of people who have access to financial services (Risal & Maulana, 2018).

2.2 Financial Literation
The implementation of education in order to improve public finances is very necessary because based on a survey conducted by the OJK in 2013, the level of financial literacy of the Indonesian population is divided into four parts, namely: Well literate (21.84%), namely having knowledge and confidence about financial service institutions as well as financial service products, including features, benefits and risks, rights and obligations related to financial products and services, as well as having skills in using financial products and services; Sufficient literate (75.69%), possessing knowledge and confidence about financial service institutions and financial products and services, including features, benefits and risks, rights and obligations related to financial products and services; Less literate (2.06%), only have knowledge of financial service institutions, financial products and services and Not literate (0.41%), do not have knowledge and confidence in financial service institutions and financial products and services, and do not have skills in using financial products and services. (Financial Services Authority, 2020)

2.3 The Classification of Financial Technology
The following classification of Fintech in Indonesia according to Bank Indonesia (BII):

   a. Crowdfunding and peer to peer lending
Crowdfunding is a technique of funding a business unit or business project that involves a broad range of people. Peer to peer lending (P2P Lending) is the practice or method of lending money to individuals or businesses and vice versa, applying for loans to lenders that connect lenders with borrowers or investors online.

   b. Market Aggregator, which is to collect and manage data that consumers can use to help make decisions.
   c. Risk and Investment Management Risk and investment management or commonly known as risk and investment management in financial technology are used as planning in digital form.
   d. Payment, Settlement and Clearing Payment, settlement and clearing are the Fintech sector with payment system services administered by the banking industry or Bank Indonesia institutions. (Ningsih, 2020)

Factors Causing the Development of Fintech

   a. There is a change in consumer mindset; these changes are marked by a growing need in society but society wants to get it in a practical and easy way.
   b. Digital progress Digitalization is a change from the old system which is not yet modern. In the current era, digitization has been used in many products for public use.
   c. Changes in trends Developments and innovations that are carried out quickly and continuously encourage change and acceleration in a trend in society.
   d. Decreased loyalty to brands and institutions.
   e. Easier access.
   f. The product being offered is considered profitable.

2.4 UMKM
Understanding UMKM UMKM or commonly known as small and medium enterprises is a term that refers to a type of business that is established by individuals and has a maximum net worth of Rp. 200,000,000.00 (excluding land and buildings). Based on Law Number 20 of 2008, the definition of Micro, Small and Medium Enterprises (MSMEs) is: (Bank Indonesia, 2020)

   a. A micro business is a productive business owned by an individual and / or an individual business entity that meets the criteria for a micro business as regulated in this law.
   b. Small business is a productive economic business that stands alone, which is carried out by individuals or business entities that are not a subsidiary or branch of a company that is owned, controlled, or is a part, either directly or indirectly, of a medium or large business. The criteria for small businesses as referred to in this law.
   c. What is meant by small and medium enterprises are business activities with an activity scale that is not too large, management is still very simple, available capital is limited, and the market which is not yet reached is not wide enough.
   d. Medium-sized enterprises are productive economic enterprises that are independent, carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or are part of either directly or indirectly, with small or large businesses with total assets. Including the net or annual sales proceeds.
3. Methodology

The research methodology used is descriptive analysis using a qualitative approach. The data collected is secondary data by conducting literature and literature studies.

4. Discussion

The development of the number of electronic financial transactions in Indonesia in 2013-2019 can be seen in the table below:

**Table 2.**

<table>
<thead>
<tr>
<th>PERIODE</th>
<th>TAHUN 2015</th>
<th>TAHUN 2016</th>
<th>TAHUN 2017</th>
<th>TAHUN 2018</th>
<th>TAHUN 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>535,579,528</td>
<td>683,133,352</td>
<td>943,319,933</td>
<td>2,922,698,905</td>
<td>5,226,699,919</td>
</tr>
<tr>
<td>Nominal</td>
<td>5,283,018</td>
<td>7,063,689</td>
<td>12,375,469</td>
<td>47,198,616</td>
<td>145,165,468</td>
</tr>
<tr>
<td>% Kenaikan Volume</td>
<td>-</td>
<td>27.55</td>
<td>38.09</td>
<td>209.83</td>
<td>78.83</td>
</tr>
<tr>
<td>% Kenaikan Nominal</td>
<td>-</td>
<td>33.71</td>
<td>75.20</td>
<td>281.39</td>
<td>207.56</td>
</tr>
</tbody>
</table>

From Table 2, it can be seen that every year the number of transactions has increased. In terms of volume, 2018 experienced the highest increase compared to the previous year 2017 amounting to 209.56%. Meanwhile, the nominal that experienced the highest increase was in 2019 compared to the previous year, namely 207.56%.

![Volume of Electronic Money Transaction in 2015–2019 in Rupiah](source)

**Fig 1.** Volume of Electronic Money Transaction in 2015–2019 in Rupiah

From Figure 1, it can be seen that the increase in electronic money transactions in nominal and volume has increased significantly from 2015 to 2019. Meanwhile, the development of MSMEs has also increased from year to year. Based on data collected from the Ministry of Cooperatives and MSMEs, the development of MSMEs from 2015-2018 is as follows:

**Table 3.**

<table>
<thead>
<tr>
<th>Tahun</th>
<th>Unit Usaha</th>
<th>Pangsa</th>
<th>% Kenaikan Unit Usaha</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>59,262,772</td>
<td>99.99%</td>
<td>-</td>
</tr>
<tr>
<td>2016</td>
<td>61,651,177</td>
<td>99.99%</td>
<td>4.03</td>
</tr>
<tr>
<td>2017</td>
<td>62,922,617</td>
<td>99.99%</td>
<td>2.06</td>
</tr>
<tr>
<td>2018</td>
<td>64,194,197</td>
<td>99.99%</td>
<td>2.02</td>
</tr>
</tbody>
</table>

Source: (Kementrian Koperasi dan UKM, 2020)
From table 3 it can be seen that there is an increase in the number of UMKM business units from 2015 to 2018 with a 99.99% share. In 2016, there was an increase of 4.03% compared to 2015. In 2017 and 2018, there was an increase compared to the average of 2% in the previous year.

According to (Risal & Maulina, 2018) the potential development of MSMEs in Indonesia is inseparable from banking support in lending to MSMEs. In 2015, around 60% - 70% did not have access to financing through banks. Bank Indonesia has issued provisions for banks to allocate 5% of credit or financing to MSMEs in 2015, 10% in 2016, 15% in 2017 and 20% at the end of 2018. Therefore, the role of technology finance or fintech in Indonesia, peer to peer lending (P2PL) is a fintech platform that offers online capital loans or financing. The company engaged in the P2PL sector is in a digital intermediary position through a platform without physically collecting funds that brings together people who provide funds or invest their funds (investors) with people who need funds (borrowers). Borrowers are not only individuals but also many come from Micro, Small and Medium Enterprises (MSMEs) which require funding quickly for the short term. (Segara, 2020)

4.1 The Role of Fintech for UMKM Agent

According to (Wachyu, 2020), the increase in ownership of financial products and services is a reflection of the increase in financial literacy caused by the development of Fintech. Along with the development of financial technology, this has an impact on the use of Fintech to support their business activities by MSME owners. The factors that require MSME owners to use Fintech are due to; development of Fintech, consumer, convenience and security. Collaboration between banking and financial technology (Fintech) can contribute to increasing MSME financial literacy. Moreover, so far the government has been aggressively campaigning for the national non-cash transaction movement. So that a cashless society is formed in transactions. The use of Fintech services by smartphone users can be the answer to the government’s efforts to build a cashless society. Because, the number of cellphone users in Indonesia is already very large. Smartphone penetration in Indonesia has already exceeded the penetration of bank accounts in Indonesia. The government conducts a digital UMKM training program. This program provides courses to 2,500 MSMEs with a training period of 2.5 months with the themes of business development and digital expertise, digital brands, e-commerce, digital operations and digital marketing. It can be concluded that there is a role for Fintech in improving Financial Literacy in MSMEs.

4.2 Digital Entrepreneurship

When the number of entrepreneurs in a country is considered an indicator of progress, Indonesia, with a population of 260 million, ideally has an entrepreneurial population of at least 5 percent of the total population. The entrepreneurial population is important, because it is able to see opportunities, develop and create new businesses. So as to create jobs and the country's economic growth. Especially in the digital era where there are almost no obstacles to starting a business. (MINISTRY OF KOPERASI AND UKM REPUBLIC OF INDONESIA, 2020). In 2019, 3.79 million MSMEs have used online platforms to market their products. This number is around 8% of the total MSME players in Indonesia. MSME entrepreneurs can also partner with large companies such as GOJEK. The data shows that GOJEK Partners contribute IDR 44.2 trillion per year to the Indonesian economy with the following details: (Regional Secretariat Bureau of Economy and Finance, 2020)

1) Contribution of IDR 18 trillion per year to the economy through the difference in turnover before and after GO-FOOD’s MSME partners.
2) Contribution of IDR 1.65 trillion per year to the economy through the difference in income before and after the Go-Ride UMKM partners
3) Rp. 8.5 trillion contribution to the economy through the difference in income before and after the Go-Car MSME partners
4) IDR 1.2 trillion contribution to the economy through the difference in income before and after Go-Life MSME partners

Financial technology plays a role in the development of MSMEs through Gojek business partners:

1) The majority of GO-FOOD partner respondents are micro and small businesses with a turnover of IDR 300 million / year (72%) and a turnover of IDR 300 million - 1.25 billion / year (26%). This turnover classification is based on the classification of MSMEs in Law 20/2008 concerning UMKM.
2) Before becoming GO-FOOD partners, the majority of MSMEs did not have digital assets. 73% only have physical buildings and 20% own semi-permanent warungs. After becoming GO-FOOD partners, 93% of MSME respondents can immediately open a business digitally (go-online).
3) Joining the GO-FOOD ecosystem, introducing MSMEs to electronic payment technology. The majority of MSMEs (75%) apply non-cash payments after becoming GO-FOOD partners. After becoming an UMKM partner, Go Food shows an increase in the business of MSME partners, namely

a) 55% of partners experienced an increase in average turnover
b) Allocating 85% of income for business investment to develop and 21% to purchase company goods
c) Increased transaction volume for 93% of MSME partners

d) 74% of MSME partners experienced an increase in income above 10%. (Secretariat of Economic and Finance Bureau, 2020)

C. Acting as a source of Business Financing

To overcome difficulties in obtaining access, Fintech always innovates by developing flexible products and better ways to solve the problems faced by MSMEs. Fintech also makes financial services more affordable and accessible, improves customer experience and accelerates use and engagement, builds a foundation including digital identity verification to make it easier, collaborative customer due diligence, data sharing, and payment schemes that can accelerate a number of financial services. The roles of Fintech in realizing financial inclusion are as follows:

1) Providing ease of accessing various types of financial services.
2) Able to reach all UMKM to remote areas.
3) Offer and open fast and easy access to business finance.
4) Contribute greatly to empowerment

With fintech it is also expected to increase financial inclusion, and reach people who have not been reached by banks, especially for the development of Micro, Small and Medium Enterprises (MSMEs). Financial Services Authority (OJK) data shows that nearly 25% of Indonesia's population does not have access to a bank. SME entrepreneurs are particularly at a disadvantage by limited access to banks, because it will be much more difficult to obtain loans and finance business expansion. According to the Financial Services Authority Report in August 2020, there were around 157 fintech lending companies or those that provided loans in Indonesia with total assets of nearly Rp 3.2 trillion. One of the loan services offered by fintech companies is peer to peer (P2P) lending. In this loan mechanism, individuals or companies can lend money to other people and get profit from the loan interest. At least 54% of the 12.8 million P2P borrowers are SMEs. (Financial Services Authorization, 2020). Fintech technology with a peer to peer lending platform in Indonesia is as follows:

1) Modalku, MSMEs experiencing funding difficulties are given financial assistance by my capital, which is a peer to peer lending platform (P2PPL). Loan funds start from IDR 50,000,000 to IDR 500,000,000 with a tenor of up to 12 months. The loans that Modalku have disbursed to Indonesian SMEs are 60% to 70%. (Modalku, 2020)

2) Investree, is one of the market places that processes funds from investors by bringing them together with borrowers on the site, later investors who will choose the borrower to be funded. (Risal & Maulina, 2018) Financing for individual customer interests up to IDR 50,000,000 while for business purposes up to IDR 2 billion. (Investree, 2020). Investree in collaboration with Pegadaian.com provides an opportunity for SMEs to apply for loans at Investree. Especially for Pegadaian.com vendors who are applying for a loan for the first time and are approved, they can get cashback of up to IDR 10,000,000.

3) Amartha, is the first online fintech lending company in Indonesia which brings SMEs together with rural micro entrepreneurs through capital loans. Financing at Amartha starts with a nominal value of IDR 3,000,000 to IDR 10,000,000. (Amartha, 2020). The joint responsibility system is a system used by Amartha, where when there are 10 to 20 people who have been coached by Amartha in various villages, Amartha will then provide financing capital. If one member fails to fulfill his/her obligations, the other members are also responsible. (Risal & Maulina, 2018)

According to (Bank Indonesia, 2020) the advantages of Fintech are

1) For consumers, it can provide benefits in the form of better service, more choices and lower prices
2) For merchants of products or services, it is able to simplify the chain of transactions, reduce operational and capital costs and freeze the flow of information
3) For the state, fintech encourages the transmission of economic policy, increases the velocity of money circulation and thus improves the people's economy

In reducing high capital costs and operating costs, Fintech has changed the payment system in society and helped start-up companies to be effective and efficient. Fintech is now able to replace the role of formal institutions such as banks.

4.2 The existence of technology finance towards UMKM players

One of the hopes for MSME players in business development is to access financing through Fintech in the form of Peer to Peer Lending (P2PPL) after being inaccessible by banks. In supporting MSMEs, the government has programs, one of which is the People's Business Credit (KUR). Determining the KUR Mikro ceiling, the total accumulation of the KUR Mikro ceiling for the trade sector to Rp 200 million. As for the micro KUR, the production sector is not limited. (Ministry of Finance, Republik Indonesia, 2020). Communities that have not been well literate coupled with the large national financing needs for MSMEs are opportunities for Fintech businesses.

MSME actors often experience difficulties when visiting banks, it will be greatly helped by the presence of technology that makes financial services cheaper, faster and easier. Fintech is a solution for the development of MSME businesses in the future. The challenge is to maximize the role of Fintech in supporting MSMEs so that people have easier access to financial services. Based on a survey conducted by the Financial Services Authority, only 67.8% of Indonesians have used financial products. This means that there are still 32.2% who have not used financial products (Segara, 2020)

5. Conclusion

Financial Technology is a new hope for the development of MSME players in Indonesia. Fintech plays a role in the development of MSMEs in terms of:
a. Increase financial literacy, financial technology development, so that it has an impact on the use of Fintech to support their business activities by MSME owners

b. Digital entrepreneurs in partnership with Gojek as one example of contributing IDR 44.2 trillion per year to the Indonesian economy, play a role in MSME financial inclusion and as a source of business financing.

c. Sources of business financing, to overcome difficulties in getting access to access, Fintech always innovates by developing flexible products and better ways to solve problems faced by MSMEs. MSME actors often experience difficulties when visiting banks, it will be greatly helped by the presence of technology that makes financial services cheaper, faster and easier. Fintech is a solution for the development of MSME businesses in the future. The challenge is to maximize the role of Fintech in supporting MSMEs so that people have easier access to financial services.

6. References


